



JULY 2024

THREE YEARS OF PROGRESS

A Review of Sustainability Across

the 2021-2024 Olympic Cycle

OUTSTANDING LEADERSHIP
WORLD ATHLETICS

MOST IMPROVED
**INTERNATIONAL
HOCKEY
FEDERATION**

BEST PROJECT
WORLD SAILING

**MOST FEDERATIONS
ARE PLAYING THE
SUSTAINABILITY
GAME**

**HIGHLIGHTS
IN PRODUCT
INNOVATION**



To cite this report:

The Sport Ecology Group & The Sustainability Report (2024). Three Years of Progress: A Review of Sustainability Across the 2021-2024 Olympic Cycle. Toronto, Canada. 43pp. [10.13140/RG.2.2.29765.87525](https://doi.org/10.13140/RG.2.2.29765.87525)

The Sport Ecology Group is a US-based non-profit with international membership, run by academics, aimed at driving sustainable change across the sports sector through research, teaching, and publicly accessible campaigns and events.

The Sustainability Report is an online publication tracking and sharing the latest in sport and sustainability news through up-to-the-minute news stories, in-depth analysis, inspirational and actionable case studies, and interviews with the people striving to create a more sustainable sports industry.

Authorship

The following people were involved in the conceptualization, data collection, verification processes, writing, and editing of this report (in alphabetical order):

Yara Acaf (PhD candidate at University of Texas at Austin)
Austin Anahory (Master's graduate at University of South Florida)
Ugo Arbieu (Postdoctoral Fellow at Université Paris-Saclay; Research Lead at The Sport Ecology Group)
Matthew Campelli (Founder of The Sustainability Report, Managing Director of Touchline)
Ricardo Cayolla (Associate Professor of Consumer Neuroscience at Portucalense University)
Tess Dahan (PhD student at Loughborough University)
Jordan Howell (Associate Professor of Sustainable Business at Rowan University)
Matthew Hutchinson (Lecturer of Sport Business at Keele University)
Timothy Kellison (Associate Professor of Sport Management at Florida State University)
Seth Kirby (Senior Lecturer of Sport Management at Nottingham Trent University)
Benjamin Mole (PhD student at Loughborough University London)
Madeleine Orr (Assistant Professor of Sport Ecology at University of Toronto; Founder and Industry Lead at The Sport Ecology Group)
Barry O'Sullivan (PhD candidate and Assistant Lecturer at South East Technological University)
Sonia Preisser Rubio (PhD candidate at North Carolina State University)
Walker Ross (Lecturer of Sport Management and Digital Marketing at University of Edinburgh; Director and Communications Lead at The Sport Ecology Group)
Josephine Traberg (PhD student at Norwegian School of Sport Sciences)

TABLE OF CONTENTS

| | |
|--|----|
| Executive Summary..... | 3 |
| Methodology..... | 5 |
| Most Federations are Playing the Sustainability Game..... | 7 |
| Highlights in Product Innovation..... | 13 |
| Outstanding Leadership: World Athletics..... | 15 |
| Best Project: World Sailing..... | 18 |
| Most Improved Federation: International Hockey Federation..... | 20 |
| Federations in Motion..... | 23 |
| Conclusion..... | 42 |

EXECUTIVE SUMMARY

It's been a fast and exciting three years of change in the sport and sustainability space since the Tokyo 2020 Olympics (held in 2021). Back then, a rapid review of the work being done by international sports federations (ISFs) conducted by our team turned up piecemeal efforts and a handful of results. Today, nearly every sport federation has put some work into the environmental sustainability agenda. We're thrilled to report that this time around, we've got something good to say about every sport federation competing in Paris 2024 - and we've thrown in the federations whose sports will feature (for the first time, or as a return to the Olympic program) in LA 2028.

This report details a research exercise conducted by members of the Sport Ecology Group and The Sustainability Report to review environmental sustainability efforts by international sports federations that will have events featuring in the Paris 2024 Olympic Games and the Los Angeles 2028 Olympic Games. The exercise aimed to provide a quick and accessible reference point on progress toward environmental sustainability agendas since the last Olympiad and to identify opportunities for further development in the next four years. Initially, data was collected in March and April 2024 from sport federation websites, reports, press releases, and news media interviews, then verified and updated by representatives of each sports federation (via email) in July 2024.

While not uniformly equipped to address the mounting burdens of climate change and the urgent need for mitigation, important strides have been made:

- **17 of 36 summer sport federations have adopted sustainability strategies, and**
- **10 have a full-time staff person dedicated to working on this agenda.**

In just the three years since the Tokyo 2020 Olympic Games (in summer 2021),

- **11 summer sports federations have joined the new Sports for Nature framework, and**
- **7 have signed onto the Sports for Climate Action framework** (joining the 16 that were already signatories, for a total of 23 signatories among the reviewed federations)



“We have welcomed an important number of Olympic movement organizations [to the Sports for Nature Framework], including 11 Summer Olympic International Federations, 9 National Olympic Committees, Paris 2024 Organising Committee for the Olympic and Paralympic Games and Association of National Olympic Committees (ANOC). This new commitment to protecting and restoring nature and biodiversity is a significant advancement since Tokyo 2020.”

*Meredith McCurdy, Programme Leader,
Sports For Nature at IUCN*



These high-level indicators signal considerable commitment by the highest levels of sport to address ongoing environmental crises. This Olympic cycle was about federations joining the sustainability conversation. The next Olympic cycle will be about accelerating action.

This report also includes three feature stories, cross-published in The Sustainability Report on Thursday, July 25th, 2024, celebrating the work of three ISFs whom we wish to recognize for standout work on environmental sustainability:

- **World Athletics President Seb Coe for Outstanding Leadership.**
- **World Sailing for Best Project, celebrating its education initiative titled Sustainability Sessions, which began in 2023.**
- **International Hockey Federation for Most Improved, acknowledging the rapid development of its sustainability efforts in the three years since 2021.**

There remains much work to do on the environmental sustainability agenda in the Olympic Movement. In the next Olympic cycle, we hope to see more work on adaptation, a stronger focus on influence and education among fans, and a closer look at the vast sport supply chain – including sponsors and partners – to find more opportunities for climate action and nature conservation.

METHODOLOGY

For this roundup, following on from the conversation in 2021, all sporting federations participating in the Paris 2024 Olympics, as well as those participating in Los Angeles 2028, were analyzed based on their commitments and actions to environmental sustainability during this last Olympic cycle (2021-2024). We began this process in March 2024, with PhD students and faculty members from the Sport Ecology Group (SEG) reviewing each federation.

We first identified criteria for evaluating each sport federation, with members of both The Sustainability Report editorial team and the Sport Ecology Group's research team contributing to this. This criterion we landed on includes:

- The number of sustainability-focused staff positions within the federation
- A published sustainability strategy and evidence of regular reporting
- Whether the federation's offices, events and venues are managed sustainably (with special attention paid to external certifications achieved)
- Whether the sponsorship portfolio included fossil fuels or other high-emitting industries
- Any obvious greenwashing in communications or campaigns
- Participation in the UN's Sports for Climate Action framework or the International Union for Conservation of Nature's Sports for Nature framework
- Notable growth (in number of events or geographic distribution of events) since 2021
- Major controversies linked to environmental sustainability since 2021

Initially, data was collected between March 15th and April 15th, 2024, from sport federation websites, reports, press releases, and news media interviews since the last Olympics in Tokyo. This was first undertaken by PhD students who systematically collected documentation on anything relevant to the criteria set out above. Once this initial data collection was complete, a faculty member from the SEG reviewed the findings and did an additional search to check that nothing obvious was missed or needed updating. Then, the SEG and The Sustainability Report contacted each federation with the findings, asking for feedback on the results of our search and updates on our findings or for any relevant information that may have been missed.

Whilst verification by the federations was ongoing, those involved in the analysis of the federations discussed which federations would be celebrated for their efforts in three feature articles published in The Sustainability Report in July 2024 and republished in this report:

- Outstanding Leadership – World Athletics (President Sebastian Coe)
- Best Project – World Sailing (for the ‘Sustainability Sessions’)
- Most Improved – International Hockey Federation (for work on waterless, carbon-zero turf)

As part of the process of identifying best-in-class performance in the three categories above, the authorship team chose to omit federations which had any fossil fuel sponsorship (either directly at the federation level or in a World Championship event) since 2021 or any significant controversies related to environmental sustainability, which could not be supported or justified, despite positive work being undertaken.

MOST FEDERATIONS ARE PLAYING THE SUSTAINABILITY GAME

This sustainability round-up shows that the majority of international sports federations governing summer Olympic sports have demonstrated significant progress around incorporating broader dimensions of environmental sustainability into their organizational strategy, as well as supplying more comprehensive information about how their events can be managed more sustainably and, in some cases, federations possessing specific guidance on sustainable event hosting. Alongside this, federations have made an improved effort to better report on their sustainability work, and now many of these organizations are actively engaging in wider programmes, such as joining as signatories of the Sport for Climate Action framework.

Here are some relevant numbers. Of the 36 sports federations reviewed for this report...

17

have a sustainability strategy

10

10 have a full-time staff person working on sustainability

18




















have published sustainability guidelines for events in their sport

23

have signed the UN's Sports for Climate Action framework

11

have signed the IUCN's Sports for Nature framework

| Federation | Has an ES strategy | ES in governance documents | FT staff | SFCA | SFN | Event guidance | FF sponsors | Green-washing scandals |
|----------------------|---|---|---|---|---|---|---|---|
| Badminton (BWF) | | | | | | |  | |
| Equestrian (FEI) | | |  |  | |  | | |
| Fencing (FIE) | | | | | | | | |
| Weightlifting (IWF) | |  | |  |  | | | |
| Football (FIFA) |  |  |  |  | |  |  |  |
| Basketball (FIBA) | |  | |  | |  | | |
| Canoe (ICF) |  |  | |  |  |  | | |
| Cricket (ICC) | | | | | | |  | |
| Flag Football (IFAF) | |  | | | |  | | |

Note: ES = environmental sustainability; FT = full time; SFCA = Sports for Climate Action framework signatory; SFN = Sports for Nature signatory; FF = fossil fuel sponsorship

| Federation | Has an ES strategy | ES in governance documents | FT staff | SFCA | SFN | Event guidance | FF sponsors | Green-washing |
|-----------------------|--------------------|----------------------------|----------|------|-----|----------------|-------------|---------------|
| Sport Climbing (IFSC) | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✗ |
| Golf (IGF) | | ✓ | | ✓ | | | | |
| Gymnastics (FIG) | | ✓ | | | | | | |
| Volleyball (FIVB) | | | | | | | | |
| Handball (IHF) | | ✓ | | | | | | |
| Hockey (FIH) | ✓ | ✓ | ✓ | ✓ | | ✓ | | |
| Judo (IFJ) | ✓ | ✓ | | ✓ | | ✓ | ✗ | |
| Pentathlon (UIPM) | | | | | | ✓ | | |
| Sport Shooting (ISSF) | | | | | | | | |

Note: ES = environmental sustainability; FT = full time; SFCA = Sports for Climate Action framework signatory; SFN = Sports for Nature signatory; FF = fossil fuel sponsorship

| Federation | Has an ES strategy | ES in governance documents | FT staff | SFCA | SFN | Event guidance | FF sponsors | Green-washing |
|---------------------|--------------------|----------------------------|----------|------|-----|----------------|-------------|---------------|
| Surfing | ✓ | ✓ | | ✓ | | | | |
| Table Tennis (ITTF) | | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Tennis (ITF) | | ✓ | | | | | | |
| Cycling (UCI) | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Wrestling (UWW) | | | | ✓ | | ✓ | | |
| Aquatics | | | | | | | | |
| Archery | ✓ | | | ✓ | | | | |
| Athletics | ✓ | ✓ | ✓ | ✓ | | ✓ | | |
| Baseball/Softball | ✓ | ✓ | ✓ | ✓ | | ✓ | | |

Note: ES = environmental sustainability; FT = full time; SFCA = Sports for Climate Action framework signatory; SFN = Sports for Nature signatory; FF = fossil fuel sponsorship

| Federation | Has an ES strategy | ES in governance documents | FT staff | SFCA | SFN | Event guidance | FF sponsors | Green-washing |
|--------------------|--------------------|----------------------------|----------|------|-----|----------------|-------------|---------------|
| Dance Sport (WDSF) | ✓ | ✓ | | | | ✓ | | |
| Lacrosse | ✓ | ✓ | | ✓ | | ✓ | | |
| Rowing | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Rugby | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | |
| Sailing | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Skate | | ✓ | | | ✓ | | | |
| Squash | ✓ | | | ✓ | ✓ | | | |
| Taekwondo | ✓ | ✓ | | ✓ | ✓ | | | |
| Triathlon | | ✓ | | ✓ | ✓ | ✓ | | |

Note: ES = environmental sustainability; FT = full time; SFCA = Sports for Climate Action framework signatory; SFN = Sports for Nature signatory; FF = fossil fuel sponsorship

HIGHLIGHTS IN PRODUCT INNOVATION

Several federations have found creative ways to reduce waste and the carbon footprint of the products used in their sport since 2021. Some focused on finding materials that replace plastics or hard-to-secure natural materials (e.g. goose feathers); others directed their attention to reuse, opting for solutions that would reduce the overall amount of product used (and disposed of) in the sport or providing participants with an option to recycle their used gear.

Here are a few highlights:

Carbon-zero hockey turf – International Hockey Federation

This summer at the Olympic Games, hockey will be played on 'Poligras Paris GT zero' turf, developed as a carbon-zero alternative to the typically water-intensive options used in the sport. Made by Sport Group from 80% sugarcane and manufactured using green energy, the production of the turf was achieved with low emissions.



More sustainable tennis balls – International Tennis Federation

Tennis balls have very short lives. After only a few games, they lose their bounce and are disposed of. The International Tennis Federation has been innovating around more durable options, recently landing on a prototype shown to BBC Sport earlier this Spring which features a polymer outer shell with holes, as opposed to the normal fabric coating over the rubber core. Those involved in its design say that it is still in very early stages and there could yet be a better solution, but said it shows how the ITF is trying to "stimulate innovation in the industry" and be "proactive".



Synthetic feather shuttlecocks – Badminton World Federation

Together with equipment producer Yonex, the Badminton World Federation has developed and approved a synthetic feather shuttlecock, that is both more economically viable and durable compared to traditional natural feather shuttlecocks. These new synthetic feathers replace the more traditionally used goose or duck feathers and reduce shuttlecock usage by up to 25 percent.

Recycled and temporary pools – World Aquatics

A partner of World Aquatics since 2009, Myrtha Pools has been innovating around pool design and reuse at the World Aquatics Championships each year. For the 2023 championships in Fukuoka, Japan, stainless steel panels and gutters originally utilized in the Tokyo 2020 Games found new life in warm-up pools and permanent facilities for elementary schools. These recycled and recyclable materials, paired with more efficient water recirculation and filtration systems, drop carbon emissions by 45% compared to the more common concrete and tile construction models.

Going even further, Myrtha has also pioneered modular temporary pools for recent championships, including in Doha, where 5 temporary pools were erected for the 2024 World Aquatics Championships to eliminate the possibility of these facilities becoming ‘white elephants’. The pools used in Doha will find a new long-term home in neighbouring Bahrain at the World Aquatics training center.

SEB COE'S CONSISTENT SPOTLIGHTING OF CLIMATE ISSUES EARNS WORLD ATHLETICS 'OUTSTANDING LEADERSHIP' RECOGNITION

By Matthew Campelli

If there's one thing Seb Coe is not afraid of, it's making a bold public statement.

More than a few eyebrows were raised when World Athletics, the international federation of which he is president, announced that it would introduce \$50,000 prize money for Olympic champions at the upcoming Paris 2024 Olympic Games.

However, what has garnered much less attention (apart from within the small but growing circles of sport concerned with sustainability) is Coe's strong and consistent messaging around climate change and the perils it poses for his sport.

Almost five years ago, the chairman of the London 2012 Organising Committee, sat down with The Sustainability Report and said that he wanted World Athletics to "have something to say – and the ability to be practical" about the big issues such as climate change.

As well as the most pressing concerns around safeguarding athlete health and performance from the increasing heat and extreme conditions, for Coe, World Athletics doing its bit to address climate change came down to one thing – relevance.



Top: Seb Coe speaks at the Sustainability Strategies in Sport Conference, Monaco, Feb 2024.

Below: World Athletics hosts panel about climate change impacts on the Pacific Islands, Aug 2023



“Young people don’t just look at your organization as a political party or a sports federation or a tech business,” he said. “They ask a fundamental question: ‘do you look like the world I live in?’”

Over the subsequent years, Coe has continued to speak his mind about the fundamental link between the worsening environmental conditions and the future prospects of the sport he is shepherding.

The fact that he is one of the few sports leaders to do so – certainly the most high profile – has earned World Athletics ‘outstanding leadership’ recognition from a piece of work carried out by the Sport Ecology Group (SEG), in collaboration with this publication, to explore the evolution of sustainability work carried out by international federations in the Olympic Movement between Tokyo 2020 and the upcoming Games in the French capital.

While most federation presidents and general secretaries talk up the prospects of expanding their sport into countless regions and territories, Coe has mused, on more than one occasion, about the potential need for major athletics events to be withdrawn or rescheduled in some areas because of concerns around heat and air quality.

Athlete safety and welfare, he said, would be the top priority in any major debates going forward.

Ahead of the latest World Championships in Budapest, Hungary, last year, Coe insisted that, on his watch, his organization would “not shirk” difficult decisions.

“We are going to have to have a think about this,” he said. “And maybe some of our endurance events, particularly the road, need to be staged at times of year where you are not putting athletes at risk.”

He added: “Are there countries we’re not going to be able to go to? Climate change is affecting everybody, whether it is forest fires, flooding, landslides, we’ve got our problems here and it’s not limited to those areas we were instinctively having to figure out 20 or 30 years ago.”

But beyond asking and addressing tough questions in front of TV cameras, Coe’s concerns about the impact of climate change on his sport have been mirrored by the actions of his organization. According to the SEG’s sustainability operations matrix, World Athletics has met five of the six criteria for assessing the progress of international federations.

From a governance perspective, World Athletics has a sustainability strategy in place, as well as environmental criteria in leading governance documents. It has a full-time member of staff, head of sustainability Bob Ramsak, as well as guidance for its events and members.

Operationally, its Athletics for a Better World Standard has set a number of binding environmental, social and governance obligations that host cities or venues need to adhere to if they want to run a World Athletics-sanctioned event, with early tests in Budapest and during this year's World Indoor Championships in Glasgow.

The standard has 55 action areas, with 20 mandatory (and 100 optional) points across sustainability leadership, sustainable production and consumption, climate change and carbon, local environment and air quality, global equality and diversity, accessibility and wellbeing.

With 90% of its carbon emissions coming from the movement of staff and athletes, World Athletics is moving towards a more sustainable travel policy and the restructuring of its competition calendar to reduce the distance people need to travel.

However, its approach to climate action moves beyond its operational impact and signing agreements like the UNFCCC Sports for Climate Action framework; World Athletics is one of the few major sports organizations to use its platform to address the consequences of climate change through several mediums.

Its tone can be stark: like Coe's musings about the sport's future viability, or a panel it hosted showcasing the plight of small island nations during last year's World Championship event.

Its tone can be light and engaging: like its work with its Champions for a Better World, a group of climate-conscious athletes who spread the word via social, content creation, meet-and-greets at events and through their own non-athletic work.

World Athletics has also taken prominent roles in major European Union-funded projects, like GAMES (which explores ways to bake climate action into governance and operations) and BENCHES (which looks at the impact of sport on nature and the extent to which sport depends on ecosystem services).

Perhaps the pivotal moment highlighting Coe's and World Athletics' central role in addressing climate change was when Coe wrote the foreword for the latest Rings of Fire II report, which examined the risk of heat to athletes at Paris 2024 and beyond.

"There has never been a greater need for heightened awareness, discussion and research into what is happening on the planet and why. Sport is just one part of that, but we cannot be spectators, we must all play a role," he wrote.

"We are in a race against time. And this is one race we simply cannot afford to lose."

Coe didn't lose many races when he was competing. His sport (and many others) will be hoping he will also be on the winning side this time around.

PEER-TO-PEER LEARNING AT THE HEART OF WORLD SAILING SUSTAINABILITY EDUCATION

by Matthew Campelli

Researchers and educational psychologists have long championed the benefits of peer-to-peer learning, where students or stakeholder groups enhance their knowledge and skills through mutual collaboration and teaching. Enhanced engagement, active learning, improved understanding and confidence building are among the positive consequences of a well-planned and executed peer-to-peer session.

So when Alexandra Rickham, director of sustainability at World Sailing, began to identify a “disconnect” between the international federation’s Sustainability Agenda 2030 strategy and the practices of some of its members and stakeholders, she decided to lean on a peer-to-peer approach to bring everyone’s awareness and understanding up to a certain level.

As such, the World Sailing Sustainability Sessions were born, kicking off in October 2023 with a session about the Clean Regattas sustainability certification, hosted by its partner and leader of the initiative, Sailors for the Sea.

“We started with Clean Regattas because it is an amazing tool for us and, alongside Sailors for the Sea, we’re really trying to push it out,” Rickham tells The Sustainability Report.

“It’s really accessible, any event can use it, and it helps us get data to understand what’s happening across the world – and it’s really difficult to get pure data.”

Over the first five Sustainability Sessions, more than 200 sailor stakeholders were engaged across a number of key topics, leading to the initiative gaining recognition as the ‘best project’ in the Three Years of Progress study carried out by the Sport Ecology Group.

Of that initial group, 34% were sailors, 21% were event organizers, 15% were sailing clubs and 14% represented member associations. Biodiversity, and particularly marine mammal strikes and sightings, was a key topic of interest for offshore sailors and races. The session will be followed up with the publication of guidance around Megafauna Strikes and Sightings, and is one part of the work World Sailing does around nature.

Guidance and support around addressing invasive species, oil spills and coral reef-safe sunscreen has also been produced, and Rickham is keen that all future guidance, including the second series of Sustainability Sessions, is tailored to the needs of World Sailing’s core audiences.

“We wanted to be able to collect data and feedback to really understand what people are interested in, what they enjoy and what they don't enjoy. When we're going into the second season we can be more targeted in our approach,” the former Paralympic sailor explains.

“It's still going to be a little bit broad, but like we can be more targeted in knowing that certain class associations are going to be really interested in a specific topic, for example. And I think from that perspective we're hopefully going to continue to create a more rounded delivery and really try to make something out of the sessions.”

First season highlights for Rickham include the delivery of a peer-to-peer session by the RS 21 class, which has done “lots of amazing things” around finding sustainability-focused sponsors, establishing electric ribs on the water and promoting gender equality.

“It's a phenomenal amount of investment and really thinking with a 360 view,” she says. “That kind of thing is really inspirational when we see people standing up in our community and doing things like that.”

The Magenta Project, which won World Sailing's Sustainability Award creating a bespoke programme to support and fast-track female sailors, delivered a session on the power of diversity and inclusion. And, together with its partner Starboard (manufacturer of the windsurf boards for Paris 2024) World Sailing delivered a special session on materials, crafting and life cycle analysis.

Going forward, Rickham would like to explore different mediums to present the sessions to make them more inclusive and engaging for different learner types. She would also like to get more athletes and scientists involved to present different perspectives, particularly around the climate crisis and what it means for the sport and its member nations.

“I'm not worried about finding people and finding stories, because I think that there are loads out there. But, on a personal note, the development side of things is super important to me in terms of climate action,” adds Rickham.

“I want us to be able to also showcase the risks to members across the world who are maybe more impacted by climate change or by environmental degradation, and give them the opportunity to tell their stories.”

‘PINCER MOVEMENT’ FROM ATHLETES AND THE IOC FOCUSES FIH ON ‘SUSTAINABLE PERFORMANCE’

By Matthew Campelli

A few years ago, Jon Wyatt took a call from a professor at Ghent University in Belgium that changed his whole outlook on how to approach sustainability in his sport.

You see, field hockey had – and still has – a big water problem. One field can require up to 10-15,000 litres of water before it’s ready to play on. Multiply that by the number of hockey fields around the world, take into account the issues multiple places have with water scarcity globally, and it’s clear that the status quo can no longer continue.

Wyatt, the director of sport and sustainability at the International Hockey Federation (FIH), recognised this and put out a call to the industry to come up with a type of turf that doesn’t require water.

Then one day, he received a call from Professor Dagmar D’hooge of the university’s Department of Materials, Textiles and Chemical Engineering, who told him that the turf didn’t need to be changed at all. The answer was in the ball.

“He told me he could reduce water consumption down to five or 10 litres, and I asked him how he was going to spread that amount of water over a football-sized pitch!,” Wyatt recounts. “We’re going to put the water inside the ball’ he said.”

D’hooge and his team had developed a “self-wetting ball” that releases water when it comes into contact with friction, giving the ball the same fast and consistent roll that a wet pitch would. It was piloted at the FIH World Hockey5s Championship in Oman to acclaim from many of the athletes using it.

Acknowledging that the ball is “just part of the solution”, Wyatt adds: “The current challenge is now the sole of the shoe. The current grip of the sole is used to a wet surface and now it is going to be drier with much higher friction, which leads to a risk of injury.

“That’s why when we talk about sustainability, we talk about it in terms of sustainable performance.”

Wyatt tells The Sustainability Report that the challenges thrown at sport by the climate crisis and other environmental risks should be embraced and recognised as an opportunity to adapt and grow stronger. The lack of a totally wet pitch may limit players' ability to "slide around everywhere", but it gives them the opportunity to hone their skills in other areas, Wyatt says.

This open-minded and innovation-first approach to sustainability has helped the FIH gain recognition as the 'most improved' international federation based on criteria set by the Sport Ecology Group researchers and the organization's progress between the Tokyo Olympic Games in 2021 and Paris 2024.

If we're continuing to talk water, Wyatt explains that, between the 2016 Games in Rio and Tokyo, the FIH managed to reduce the amount of water used on turf at its events by 40%, with a similar reduction between Tokyo and Paris.

More broadly, the FIH has put in place a number of governance mechanisms that means sustainability is part of the conversation when big decisions are getting made. It released its sustainability strategy, based on People, Planet and Prosperity, in late-2022, signed the UNFCCC Sports for Climate Action framework and offered the sustainability brief to Wyatt, then director of sport, after he noticed and reported on a pattern: athletes wanted to know what the FIH was doing about climate change.

"I was spending a lot of time with athletes and I started to get all these questions about sustainability," he says. "I started to dig around and the word sustainability didn't feature anywhere; it wasn't part of the vernacular. But, in the broadest sense of sustainability, which I know encompasses a lot, we were doing quite a bit."

Below: Mock-up of hockey venue at Paris 2024 . Sourced from HockeyWrlldNews.com



With the International Olympic Committee (IOC) asking questions as well, the FIH found itself in a “pincer movement” with pressure from the top as well as pressure from below regarding the athletes.

“There’s nothing like the IOC taking a subject seriously for an IF to start taking it seriously as well,” Wyatt laughs. “So without any initial expertise but a lot of passion, I took it on.” Shortly after taking over the brief, the former Olympian set up a task force with board member backing and representation from across the globe to start sketching out what a sustainability vision could look like.

The culmination of that work was the creation and publication of the FIH’s first sustainability strategy, titled ‘A Sustainability Strategy for Hockey’, which includes several targets around water, climate and material consumption. But, more than that, the sustainability journey embarked on by Wyatt and his task force helped to uncover good work and practice being undertaken by national federations and other hockey institutions across the globe, which were turned into a selection of case studies on the FIH website.

And while the FIH’s work is just beginning, Wyatt is clear that hockey will only be able to have an optimal positive impact on the whole ecosystem – from suppliers, to federations, to clubs – is supporting the movement. Poligras, which is supplying the turf for the Paris Olympics, has developed what it has called the “world’s first and only carbon zero hockey turf” at the request of the FIH. And Wyatt suggests further collaborations in this area.

“If we change the rules of our sport to facilitate sustainable innovation, that changes demand and our suppliers will be more likely to invest in research and development,” he says. “It’s very much a partnership between us and the industry.”

Wyatt adds: “I feel we’ve done a reasonable job of setting a global direction. We have five continental members and 140 national members, and we need to start filtering down the work we’ve done so that we’re consistently delivering. There’s some cultural and behaviour change that would need to filter down – if we get millions of people doing something small, that makes a massive difference.”

FEDERATION SUMMARIES

At its Centennial Olympic Congress in Paris in 1994, the International Olympic Committee recognized the importance of sustainable development and environmental protectionism. It declared that the environment would become ‘the third pillar of Olympism’, alongside sport and culture. Thirty years later, the Olympic Movement is making strides toward those lofty goals, with 17 of 36 international sport federations having a sustainability strategy—nine of which were developed and published in the most recent Olympic cycle (since Tokyo 2021).

Below we offer brief summaries of some of those efforts. Notably, the majority of those which do not already have a sustainability policy in place have announced plans to develop one in the coming Olympic cycle.

A limitation of this research, and of any monitoring efforts in sustainability across the Olympic Movement, is the lack of clear and consistent reporting on sustainability efforts by international sport federations. For instance, some federations had no information on the websites at all, and information had to be sourced directly through contact with the federation. In other cases, the work was meticulously documented and publicly available. Further complicating this review was an inconsistent definition of ‘sustainability’. In collecting data, our team cast a wide net, attempting to capture anything related to environmental, social, cultural, and economic sustainability, but with a primary interest in analyzing the environmental work (we’re sport ecologists, after all.) Still, there was no consistency in how the federations defined sustainability: some were narrowly focused on social efforts, others on environmental initiatives, and some were broad in their approach to sustainability, throwing in the long-term financial viability of the sport and the federation’s business operations.

We include in this review what was found and verified by the federation itself, either via direct email communication or each federation’s published documents.

Badminton World Federation (BWF)

The BWF is making strides towards integrating sustainability within its operations and strategic planning. The organization has acknowledged the need for a comprehensive sustainability strategy and noted in its Strategic Implementation Plan that a Sustainability policy is expected to be formalized by the end of 2024, with annual reporting to follow. There is no designated staff member working specifically on environmental sustainability. However, BWF has a department for development, through which it addresses inclusivity (parasport), education, and coaches' development. This department could support environmental efforts as well. One notable initiative by the BWF is the approval of synthetic shuttlecocks for internationally sanctioned competitions, enacted in 2021.

The BWF outline clear priorities of governance, integrity, gender equity, and athlete-centered initiatives, closely aligned with broader Olympic movement policies. While this highlights a holistic and broad approach to sustainability, the federation has more work to do to enhance sustainability efforts. The primary sponsor for the World Championships, TotalEnergies, is a major oil and gas company, presenting a notable contradiction to the federation's sustainability ambitions.

Fédération équestre internationale (FEI)

The FEI has made progress on environmental sustainability in its operations. The organization is a signatory to the UN's Sports for Climate Action framework and has a staff member managing a complex portfolio on Events Classification & Sustainability (with a focus on environmental sustainability), who has been in the role since 2013.

In 2014, FEI published a Sustainability Handbook for its event organizers, followed by a second edition in 2023. While not binding, the updated version is more comprehensive than the original, including advice on emissions, waste management, food waste, energy efficiency, land use, biodiversity, water use and supply chain management. The federation has applied many of these same broad principles to its offices, where relevant, since 2017. To further support their stakeholders, the FEI invested financial resources in creating a bespoke carbon calculator for events, national federations, riding schools, clubs and equine facilities.

Despite these efforts, equine sports still face significant challenges. The FEI oversees numerous shows and events—more than 4,000 a year. This increases the amount of travel and exacerbates the struggles around land use, water use, and methods of combating parasites.

Fédération internationale d'escrime (FIE)

The FIE held a "Fencing for the Planet" event in April 2023, which marked the start of an FIE global environmental initiative to explore ideas of how fencing can do more on environmental sustainability.

To date, FIE has taken steps to improve environmental sustainability at the properties directly under its mandate, including its head office. For instance, the federation subsidises public transport for its staff, offers bike parking stations, recycles in the office, and works in an energy-efficient building.

Fédération internationale d'haltérophilie (IWF)

The International Weightlifting Federation (IWF) has announced plans to implement a comprehensive sustainability strategy by 2025 in collaboration with Sporting Giants. In 2023, the IWF Sustainability Programme was launched, and the federation became a signatory of the IUCN's Sports for Nature framework. It is also a signatory of the UN's Sports for Nature framework. The IWF's strategic plan for 2024-2032 lists sustainability as one of its seven core values and points to a need for developing "innovative strategies to guarantee that weightlifting is up to the latest international standards in terms of environment and climate change protection".

Fédération internationale de football association (FIFA)

FIFA has been active and visible in addressing the environmental and climate impacts of football for several years. Though the breadth and depth of its efforts have been widely scrutinized, the Federation's strategic plan for 2023-2027 includes a clear prioritization of sustainability.

FIFA has developed several sustainability strategies, such as the overarching FIFA Climate Strategy and specific event-related strategies for the Women's World Cup 2023 in Australia/New Zealand and the Men's World Cup 2022 in Qatar. The organization also employs a team dedicated to sustainability, covering various organizational practices and activities, including upcoming tournaments such as the 2026 World Cup. FIFA is also a signatory of the UN Sport for Climate Action framework and the Race to Zero campaign. FIFA has also engaged in external sustainability certifications like BREEAM and the Global Sustainability Assessment System (GSAS) for stadiums, noting a commitment to green building standards.

Despite a myriad of environmentally focused initiatives, FIFA's sustainability journey has not been without controversy. The federation has been accused of greenwashing, and concerns about human rights violations at the Qatar World Cup 2022 stirred debate. Critics point to selective reporting on sustainability metrics, which creates a misleading image of efforts. Following a complaint by the Association Avocat-es pour le Climat on behalf of Climate Alliance in November 2022, the Swiss Integrity Commission found that FIFA's claims about the CO2 neutrality of the World Cup in Qatar were misleading. FIFA's recent four-year partnership with Aramco, a major oil and gas company, further draws into question the federation's genuine commitment to environmental sustainability.

International Basketball Federation (FIBA)

The International Basketball Federation (FIBA) has notably increased its sustainability efforts in recent years across operations and strategic planning. FIBA does not have a dedicated sustainability strategy, but the organization's 2023-2027 strategy document integrates sustainability goals, addressing environmental, social, and governance (ESG) criteria in competitions and activities. FIBA is also a signatory of the UN Sport for Climate Action framework.

In the rapidly growing 3x3 tournament format, environmental sustainability efforts have been rolled out in the World Tour series and the Asia Cup events, which led to ISO 20121 re-certification. Initiatives at 3x3 events include waste, biodiversity, and carbon emissions management, both at and beyond event venues. Additionally, the Women's World Cup 2022 strived to reach sustainability metrics through its very own three-prong Sustainability Program, targeting environmental impacts and responsible sourcing, as well as focusing on environmental education. The federation's headquarters is certified with the Minergie Eco label, the highest energy standard in Switzerland for low-energy buildings, reflecting a commitment to sustainable construction practices.

International Canoe Federation (ICF)

Driven by the sport's inherent connection to nature and water, the International Canoe Federation (ICF) does show a strong commitment to environmental sustainability. For instance, the "Fit for Future" Strategic Plan 2022-2024 targets climate action and goals to be a leader in environmental sustainability practices. The ICF is a signatory to both the UN Sport for Climate Action framework and the IUCN's Sports for Nature framework.

While no staff member is employed to work on sustainability alone, the ICF has developed several resources to address sustainability, including a website landing page with an Event Sustainability Toolkit, a Sustainability Quick Start Guide for events, as well as information on various pilot projects.

Among notable initiatives undertaken by the ICF is the partnership with Starboard, which focuses on carbon footprint reduction and mangrove planting to offset emissions. Their 2023 Annual Review highlights a partnership with Alibaba Cloud, to enhance sustainability goals at competitions.

International Cricket Council (ICC)

Cricket will return to the Olympics in Los Angeles, having not featured since the 1900 Olympics in Paris. As things stand, the ICC does not have a sustainability strategy in place, and as recently as 2023 acknowledged it was still in the process of attempting to understand the environmental impact of its events. Tender documents for various event services, dated 2024, confirm the federation intends to develop sustainability practices for its tournaments in the future. The ICC does not appear to have a full-time sustainability officer.

Nonetheless, the ICC has engaged in some initial environmental initiatives. To capture recycled materials, reverse vending machines were installed at every 2023 Men's Cricket World Cup venue. This waste management project built on its 2022 efforts, which saw recycling machines situated at all seven Men's T20 World Cup venues.

However, it must be noted that the recycling initiatives were part of the ICC's controversial sponsorship deal with Aramco. Notably, the ICC's sponsorship portfolio also includes Emirates as another premier level sponsor. Coupled with the absence of a sustainability strategy and engagement in only basic environmental initiatives to date, the ICC's reliance on fossil fuel sponsorship casts a serious cloud over its commitment to reducing cricket's environmental impact.

International Federation of American Football (IFAF)

Flag football, a no-contact variant of American Football, will make its Olympic debut in Los Angeles in 2028. That gives the IFAF plenty of time to ramp up its sustainability efforts before returning to the world stage. A brief sustainability statement was published in 2021, but it has not yet been transformed into a full-blown strategy. Its 2023 major events bidding manual is a marked improvement on the initial 2021 version, with seven major areas of environmental impact now namechecked.

There are further indications of IFAF's efforts to engage in environmental practices. Regarding climate adaptation, its Heat Preparedness and Hydration Policy was improved and updated in 2021. In terms of offsetting carbon emissions, the IFAF instigated a Forest Garden initiative in 2021. Relatedly, it planned to make its 2022 Congress a climate-positive event and indicated the establishment of an offsetting framework for the 2022 Women's World Championship in Finland. However, there appears to be no reporting on whether these intentions were implemented or successful, and the use of terminology like 'climate positive' has been widely critiqued in the sports sector and beyond for being unrealistic and deceptive.

International Federation of Sport Climbing (IFSC)

The International Federation of Sport Climbing published a strategic document establishing the federation's sustainability guidelines on May 5, 2020. In this document the IFSC acknowledges sustainability as a major challenge for the general public and for the sporting world. The document sets guidelines for member federations and events organizers to follow, focusing on infrastructure and natural sites, sourcing and resource management, mobility, workforce, and climate.

The strategy then outlines a variety of steps that the IFSC will take in each of these focus areas, e.g. donation of money to reduce CO2 emissions stemming from flying or integrating sustainability into the performance objectives of directors and senior managers. Additionally, since 2022, the federation has an IFSC Europe Sustainability Commission Chair and a head of sustainability projects, who seem to oversee the sustainability work within the federation.

As part of the Guidelines document, the IFSC also established a Sustainability Award in 2021 to recognize organizers of IFSC Europe continental competitions for their sustainability efforts.

In 2023 the IFSC was faced with the NEOM Masters 2023 controversy as part of the NEOM Beach Games taking place in Saudi Arabia's Red Sea coast. Part of the controversy includes greenwashing by NEOM when Amnesty International and ALQST (Saudi human rights NGO) established the NEOM project as an "ecological disaster and a violation of human rights since there was violent expropriation of indigenous populations, killing of political opponents and irreversible destruction of ecosystems" (ACTS, 2023). Although the petition by athletes and other Sport Climbing organizations gathered over 2000 signatures, the games went ahead as scheduled (IFSC, 2023).

International Golf Federation (IGF)

The IGF acknowledged the need to address environmental issues early, with its initial sustainability statements dating back to 2012. The IGF is a signatory of the Sports for Climate Action framework. The federation has a full-time staff member dedicated to sustainability efforts.

For the Olympic games, IGF ensures its chosen golf courses adhere to the specialized events accreditation from the GEO Foundation for Sustainable Golf. A major part of this accreditation is water use, a significant challenge for golf courses around the world, especially in drier regions. This accreditation also includes provisions for renewable energy use and energy efficiency, where possible, and an expectation to seek out suppliers with the best sustainability track records. It should be noted that the IGF does not have jurisdiction over major golf tournaments like the PGA Tour or the LIV.

International Gymnastics Federation (FIG)

FIG consider environmental sustainability as a component alongside other objectives, including operational effectiveness and economic efficiency, as per its 2023 statutes. The federation has also indicated its support for the SDGs and said it wishes to mitigate the impacts that major events and meetings can have on the environment. However, there is little evidence to suggest any actions have been taken, as there is no appointed person or team to oversee the sustainability work. Indeed, FIG is not yet a signatory of either the UN's Sports for Climate Action framework or the IUCN's Sports for Nature framework.

International Handball Federation (IHF)

In its Four-Year Plan 2021-2025, the IHF backed the UN Sustainable Development Goal #13 – climate action. To date, no staff have been appointed to oversee sustainability and no public commitments have been made on this agenda. Therefore, it is unclear how the IHF will approach climate action.

The European Handball Federation and the Royal Spanish Handball Federation have begun making sustainability a bigger priority in event design and regulation. This presents an opportunity for the IHF to champion proactive groups and coordinate best practices.

International Hockey Federation (FIH)

The FIH published a sustainability strategy in 2022 that focuses on three pillars: People, Planet, and Prosperity. The strategy covers many key sustainability areas, including reducing waste and plastic use, addressing emissions and travel needs for events, reducing overall environmental impact, and global development of the sport.

Amongst the initiatives underway at the FIH is a key project under the "Planet" pillar, which addresses the turf components and requirements of the sport. A focus area of the sustainability strategy is to transition to the use of non-watered turfs. This will lead to a reduction in water needs at events and tournaments and introduce new technological developments in turf design. Additionally, integrating plant-based and recycled materials in turf allows the FIH to build on the need to ensure turf surfaces do not negatively impact the environment. Another noteworthy action is planning mini-tournaments for the professional league, which has reduced air travel by one-third. The FIH has also begun offsetting air travel emissions from international tournaments.

International Judo Federation (IJF)

The IJF published its sustainability policy in 2021 and has since made great strides in its sustainability goals. Key focus areas of the policy include event and venue sustainability, waste and responsible procurement of goods, more sustainable travel, and evaluating environmental impact.

A signatory of the UN's Sports for Climate Action framework, the IJF pledged to reach a net-zero emissions target by 2040. Key discussions for all IJF events include using existing venues with good public transportation, requiring venues to have waste, water, and energy-efficient management systems, and posting sustainability signs.

The IJF maintains several ties to fossil fuel organizations via sponsorships by SOCAR (the State Oil Company of the Republic of Azerbaijan) and commodities trader Harvest Group which trades oil and gas products. These relationships cast a shadow on the IJF's environmental efforts.

International Modern Pentathlon Union (UIPM)

The UIPM has been using its 5E strategy since 2021 to sustain growth at every level. The 5E strategy focuses on Education, Equality, Equipment, Empowerment, and Expansion. Sustainability is taken seriously at the UIPM headquarters. Internal actions at the headquarters focus on circularity by eliminating plastic bottles and prioritizing the use of eco-friendly products in the office. Additionally, all energy for the main office is supplied by 100% green electricity. Steps taken in 2023 to calculate air travel and related emissions of UIPM are also a highlight of the organization's efforts.

Bids to host events must comply with requirements for utilizing responsible services and products, ensuring waste management plans, reducing food packaging waste, and addressing local lodging and travel options' emissions. These event sustainability requirements ensure actions are taken internally and externally to focus on sustainability.

International Sport Shooting Federation (ISSF)

The ISSF has no public sustainability plan or strategy, though a sustainability committee was established during the last Olympic cycle to begin to develop a plan around this agenda. Little has been published on the sustainability work of this federation, owing to its nascency in this space, however the federation has a set of sustainability guidelines published in 2021 that outlines some of the corrosive properties of metals used in ammunition and the potential deleterious effects on nature, encouraging shooters and event organizers to harvest and recycle any used ammunition after a session and noting that “The ISSF is currently collecting information to consider alternatives and potential rule changes in the coming years. It should be recognized however that alternative shot materials will still need to be contained and recycled.” The guidelines also encourage the use of recycled paper for targets, recyclable plastics, and consideration for noise pollution associated with the practice of sport shooting.

In 2023, the federation published a statement critiquing the European Chemical Agency’s proposal to ban lead ammunition from outdoor shooting in Europe, attracting criticism from nature conservation agencies.

International Surfing Association (ISA)

ISA does not have a permanent staff member dedicated to sustainability, though two staff members oversee sustainability efforts, which include social sustainability. The ISA’s sustainability plan was published in 2022, laying out its “Climate Transition Plan” that aims to achieve net zero emissions across its value chains by 2024, consistent with the expectations of signatories to the UN’s Sports for Climate Action framework. The plan also outlines how ISA will adjust its operations, value chain, business strategy, influence in society, and governance. Overseeing this plan, the ISA selected the chair of the ISA Athletes’ Commission to also oversee matters related to sustainability within the ISA Executive Committee.

In 2024, ISA partnered with the Surfrider Foundation during the ISA World Surfing Games in Puerto Rico to implement various sustainability initiatives. These included a mangrove restoration project that involved the athletes learning about the importance of blue carbon ecosystems for carbon sequestration and protecting local environments. Additionally, ISA partnered with the local organizing committee to aim for a plastic-free event, discouraging single-use plastics by installing water bottle refill stations and ensuring no beverage served on site came in a single-use plastic container.

In the lead-up to the Paris 2024 Olympics, ISA has been in the middle of a major controversy over a judging tower that was installed for the Olympic competition in Teahupo'o in Tahiti. In December 2023, the ISA publicly opposed the construction of the new tower, stating that it had provided a proposal of more environmentally friendly solutions, such as building the tower on land instead or using drones and other technologies to judge the competitions remotely. Despite a petition signed by over 200 000 people, including pro surfers like Kelly Slater and Carissa Moore, and official opposition by the ISA, the aluminum tower was constructed on the reef at Teahupo'o and coral was damaged by a construction barge in the process.

International Table Tennis Federation (ITTF)

The ITTF has a full-time staff tasked with both social and environmental sustainability and a sustainability strategy implemented in 2023 that runs until 2025. Starting in 2024, ITTF will implement sustainable event guidelines, though these guidelines are still non-binding. Events are ISO20121 certified, and there are plans in the works to optimize tournament schedules to reduce travel and optimize resource use. Sustainability efforts include waste reduction, carbon calculating and accounting, and working with manufacturers for sustainable standards in table tennis equipment. However, ITTF sustainability work does not include work on food and energy at events.

International Tennis Federation (ITF)

The ITF has an ITF2024 plan that addresses sustainable growth and development of tennis. However, the ITF does not have an environmental sustainability strategy or plan. Apart from one 2022 corporate carbon emissions report, there are no documents that address sustainability and the organization has no full-time sustainability staff.

Little information is publicly available on the ITF's sustainability plans. However, a recent initiative aimed at reducing plastics and waste related to tennis balls was launched, with the ITF collaborating with partners to pioneer a more sustainable tennis ball option.

International Volleyball Federation (FIVB)

The FIVB has no public sustainability strategy, however the federation has announced plans to join climate and sustainability frameworks in 2025.

There are some small initiatives worthy of mention. Ahead of the Tokyo 2020 Games, the federation had done considerable work on a sustainable nets initiative made from abandoned fishing nets pulled from the ocean. More recently, the FIVB launched a Volleyball Foundation to drive work on its social responsibility agenda and has promised to include environmental efforts under the Foundation's remit.

Union Cycliste Internationale (UCI)

The UCI is leading by example when it comes to sustainability commitment. It has a full-time sustainability manager who works on various topics such as inclusion and environmental sustainability and two other full-time staff with sustainability mandates. At the top of its sustainability achievements is its 2021-2023 sustainability strategy, which focuses on environmental sustainability topics (including reducing the UCI World Cycling Center's emissions and "greener" sports events management) but also includes health, peace, and equality (gender and social equality in access to sports, particularly cycling). What stands out about UCI is its comprehensive sustainability efforts that include sustainability guidelines for daily operations and staff commuting, strategies for more sustainable waste, energy, food and emissions practices, sustainability tips for cycling organizations, a climate action training program, a climate action charter, and a sustainability impact tracker.

Aligning to external certifications such as ISO 14064 and PAS 2060 has made UCI's sustainability efforts appear more credible. Furthermore, the UCI has signed both the UN Sports for Climate Action framework and IUCN's Sports for Nature framework, and it has reached the "maturity" level on the International Olympic Committee's Sustainability maturity matrix.

Most importantly, the organization has stayed away from any controversial sponsorships and collaborations with entities that do not align with their sustainability goals. This is particularly impressive in the cycling context, as the professional tour circuit includes several teams with fossil fuel title sponsors.

United World Wrestling (UWW)

UWW is lacking on the sustainability level compared to other sports at the Olympics. For example, there is no staff member who solely focuses on sustainability goals; instead, the federation has a development director who is responsible for general development, sustainability, and education tasks. To date, most of the federation's sustainability efforts involve sustainability reports and announcing donations to external environmental charities and non-profit organizations.

Although the UWW's sustainability effort is mainly on gender equality, diversity, inclusion, and education, it also focuses on sustainable event management. The organization has published an events checklist for competition hosts.

World Aquatics

World Aquatics focuses most of its sustainability efforts on equality in access to swimming. Its interim report, FINA Olympic Aquatics Support Programme, which is part of the World Aquatics Development Programmes, is the closest thing to a sustainability report, focusing on the sport's sustainable development rather than any specific environmental efforts or initiatives.

One of the highlights of World Aquatics' sustainability efforts is the strategic and strong partnerships it has built with equipment suppliers and pool builders who follow sustainable pool construction strategies.

World Archery Federation

The World Archery Federation has assembled a Sustainability Committee which oversees the sustainability efforts of the federation's different stakeholders. The federation has published a sustainability policy and regularly publishes sustainability-related news on its website. It is a signatory to the UN Sports for Climate Action framework. More importantly, it has published a document on its sustainability KPIs, which details its carbon emissions, renewable energy usage, and waste management goals.

World Athletics

World Athletics has had a Head of Sustainability on its staff for a few years to oversee its comprehensive 2020-2030 sustainability strategy. Broadening the scope of environmental efforts beyond the remit of the federation office and hosted events, World Athletics has also developed the Athletics for a Better World Standard and published an athlete sustainability guide to support its federations and athletes in its sustainability efforts. The level of specificity in sustainability publications and the wide range of topics addressed is commendable. Moreover, the federation has achieved an ISO20121 certification and has paid close attention to the language used in sustainability communications to avoid controversy, such as "transitioning toward carbon neutrality" instead of reaching it by a specific year.

One notable initiative by World Athletics is its Champions for a Better World program, which convened a group of nine athletes representing each of its six continental areas who are being trained and supported to lend their voices to sustainability campaigning within and beyond the sport sector.

World Baseball Softball Confederation (WBSC)

The WBSC is demonstrating significant and impressive engagement in sustainability practices and initiatives. The organization has one full-time staff tasked with sustainability, though this includes both environmental and social sustainability responsibilities. Building on a sustainability strategy published in 2022, the WBSC established a baseline of its organizational carbon footprint that same year, audited emissions relating to the Youth Baseball World Cup in 2023, and pledged to commission at least one impact study during all major tournaments in 2024.

The WBSC has also restructured its event calendar to reduce the number of long flights, resulting in a model whereby athletes travel within their region for the early stages of tournaments. New event bidding guidelines actively promote sustainability, and starting in 2024; the WBSC has committed to prioritizing bidding cities with robust plans for environmental sustainability. The WBSC joined the UN's Sport for Climate Action framework in 2021 and has key staff involved in two of the framework's working groups. The Sustainability Strategy also includes plans to prioritize sustainable companies, materials, accommodations and transportation, as well as more sustainable sport and building equipment and materials.

World Dance Sport Federation (WDSF)

Breaking will make its Olympic debut this summer in Paris. Having already provided its members with environmental sustainability guidance, practical advice and direction since 2016, the WDSF published its Sustainability Operating Policy in 2023. Transforming this policy into actions and initiatives will fall under the remit of the federation's recently appointed volunteer Sustainability Special Advisor. The WDSF's desire for sustainability to be a core objective in the future is indicated by its inclusion in the federation's strategic blueprint, Agenda 2032, as one of the organization's key focus areas and long-term goals. The WDSF make no secret of the fact that it is in the early stages of its environmental sustainability journey. Its intention is to begin implementing its Sustainability Operating Policy throughout 2024 and 2025. During this same period, it hopes to develop sustainability initiatives and programs that can be benchmarked against global standards. Following this, it has stated a goal of achieving a 25% reduction in the federation's carbon footprint by 2028.

World Lacrosse

Lacrosse, absent from the Olympic Games as a contested sport since 1908, returns for the 2028 Los Angeles Games. In anticipation, World Lacrosse has taken several steps aimed at increasing its organizational engagement with sustainability. While it lacks a full-time sustainability officer on staff, a sustainability working group was established in the summer of 2021. A concise sustainability strategy statement aligns with nine Sustainable Development Goals and was delivered in 2022.

Several further actions are noteworthy. A comprehensive Sustainable Event Best Practice Guide was published in 2022, focusing on operational aspects with high environmental impacts, such as waste, energy use, travel and supply chain. Also, in 2022, World Lacrosse became a signatory to the UN's Sports for Climate Action framework. World Lacrosse has also created a Sustainability Excellence Award to promote, inspire, and recognize excellence among its members. However, there is no record of successful recipients, and it is unclear whether the award has ever been handed out.

World Rowing

The most recent sustainability strategy of World Rowing, the World Rowing Sustainability Strategy 2020-2024, is a rather succinct document and set of guidelines. A more detailed strategy was published over a decade ago, in 2012. Since then, the federation has expanded its vision of sustainability to the economic and social dimensions by integrating into its modus operandi the "sustainability race plan", six different principles: "clean water; biodiversity; responsible consumption; climate action; diversity and inclusion; fair and equitable treatment; and partnerships, education and grassroots activism." Due to the nature of its sport, World Rowing has a particular commitment to clean water.

In 2024, World Rowing appointed a full-time staff member to oversee sustainability. In addition, World Rowing has signed on to both the UN's Sports for Climate Action framework and the IUCN's Sports for Nature framework.

Also in 2024, World Rowing extended its strategic alliance with WWF to continue its work on clean water. This alliance has resulted in the establishment of the Kafue River & Rowing Centre, in the most polluted river of Zambia, the Kafue River. This centre is a sport and research centre, bringing local populations, athletes, decision-makers and scientists in the same forum to address water availability and clean water.

World Rugby

On January 17, 2022 World Rugby published its Environmental Sustainability Plan 2030. The document outlines the federation's 'intents' while providing a roadmap of actions that are aimed at tackling the environmental sustainability issues that both affect the sport and/or are affected by the sport. The strategy outlines the federation's three priority themes: Climate Action, Circular Economy and Protecting the Natural Environment, which are then further divided into four pillars of activity: governance, addressing direct impacts, delivering and supporting sustainable rugby events, and promoting sustainability in rugby through education, advocacy and knowledge sharing. To oversee this work, World Rugby appointed a Head of Sustainability in 2022.

Notably, World Rugby released its Rugby and Climate Change report on June 4th, 2024, which outlines the "six main climate hazards that impact both directly and indirectly the sport of rugby, its athletes, spectators, infrastructure and pitches" (World Rugby, 2024). This report provides an overview of what a +2°C warmer world would look like and the direct consequences this temperature increase would have on the sport and the ecosystem.

The report also provides six recommendations which include: developing and implementing sustainability plans to reduce rugby's environmental impact, which align with the Plan published in 2022; integral climate projections into commercial and policy decision-making processes and strategies to prepare for climate impacts; developing and sharing management tools to support action to anticipate the impacts of climate change on rugby; establish a solidarity funding mechanism to support the most vulnerable rugby communities; undertake further research into the adaptation and modification of rugby practices, laws, regulations and event specifications to make the sport more resilient to climate change; and, promote and support local climate change adaptation and mitigation strategies for rugby.

The inclusion of Total Synergies as a sponsor during the last World Cup tarnished the credibility of the federation's work in public opinion, though this was a decision made by France 2023's Local Organizing Committee, not technically World Rugby.

World Sailing

World Sailing launched its sustainability strategy: “Sustainability Agenda 2030” in 2016 and updated further in May 2018. Its strategy is composed of six focus areas: technical standards; events; training; venues and facilities; members; and participation.

World Sailing has been a pioneer to advance sustainability on the global sport stage. Indeed, as a signatory of both the UN’s Sport for Climate Action framework and the IUCN’s Sports for Nature framework, World Sailing was an early mover on the topic of sustainability.

Led by a Director of Sustainability, the federation’s work is well supported by the President, Quanhai Li, and CEO, David Graham, who have been vocal about its commitment on sustainability. Demonstrating the importance of this engagement, David Graham is also chair of the ASOIF’s Sustainability Consultative Group (ASCG).

World Sailing is recognized in this report for its outstanding efforts on two projects: its involvement in the Carbon Fibre Circular Alliance and the federation’s Sustainability Sessions. In the former, World Sailing and its charity arm, the World Sailing Trust, have been working alongside the IBU, ITF, UCI, and equipment manufacturers to give a second life to carbon fibre. For the latter, World Sailing launched a six-months series of eleven webinars on topics ranging from biodiversity to diversity and inclusion in sailing. The sessions are available on the World Sailing TV channel on YouTube.

World Skate

In its strategic plan, World Skate includes only two strategic notes on sustainability: 1) Asserting that all events must be financially, operationally and environmentally sustainable; and 2) Emphasizing the importance of strengthening the image and values of World Skate to achieve global recognition as an environmentally sustainable International Federation. There is no further detail on how these will be achieved.

Nonetheless, the federation joined the IUCN’s Sports for Nature framework as a founding signatory in December of 2022.

World Squash

A new addition to the Olympic programme in Los Angeles in 2028, World Squash has recently adopted its first sustainability strategy. This strategy is set to cover the period of 2023 to 2030. World Squash envisions this strategy as “a statement of intent and roadmap to tackle environmental sustainability issues facing our sport, and to contribute to global environmental priorities.”. Influenced by the IOC’s approach and with a particular focus on environmental sustainability, the strategy scopes five areas of development: operations, events, equipment, membership and governance, outreach and engagement. However, no department within the organization is yet in charge of overseeing the work on sustainability; rather, there is a Sustainability Task Group.

As a signatory to both the UN’s Sport for Climate Action framework and the IUCN’s Sports for Nature Framework, World Squash has committed to more aggressively addressing environmental sustainability in the coming Olympic cycle.

World Taekwondo

World Taekwondo launched its sustainability strategy at its General Assembly in August 2022. The strategy is set to cover the period until 2030 and has been designed to cover the environmental, social, and economic dimensions of sustainability. Within the federation, a sustainability committee and a sustainability working group have been established. The federation has also become a signatory of the UN’s Sports for Climate Action framework and the IUCN’s Sports for Nature framework.

World Triathlon

Whilst no comprehensive document relating to a sustainability strategy exists as of yet, World Triathlon has taken several steps to advance sustainability in its organization. Notably, the federation published its World Triathlon Sustainability Guidelines for Event Organisers in 2020. World Triathlon has also signed on to support the ten principles of the UN Global Compact with respect to human rights, labour, environment and anti-corruption.

World Triathlon has an Environmental Sustainability Committee and is a signatory of both the UN Sports for Climate Action framework and the IUCN Sports for Nature framework. It has also joined the Clean Seas Campaign and the UN's Climate Central Now network. Two reports have been produced (2019 and 2022) about the federation's carbon emissions reduction efforts to date and a new World Triathlon Sustainability Certification has been rolled out for triathlon events implementing sustainable measures.

However, World Triathlon's biggest controversy of this past Olympic cycle is directly related to sustainability, as 57 triathletes fell ill after racing a World Triathlon Championships Series event in Sunderland, UK, in 2023. The event took place on a coastline that had been contaminated with sewage water, and according to local news reports, on the day of the competition, the water "showed 3,900 E. coli colonies per 100ml, more than 39 times higher than typical readings the previous month." While managing the water quality is beyond the purview of the organizing federation, athletes and coaches have publicly argued greater attention should be paid to the water quality of prospective host locations.

CONCLUSION

This last Olympic cycle has been marked by progress on environmental sustainability, however stilted, inconsistent, and undermined by ongoing growth and expansion efforts across various sports. After thirty years since the environment was declared the third pillar of the Olympic Movement, it remains distinctly in third place in terms of priorities, lagging far behind sport and culture in the attention it receives from federations. But as of 2024, it's there in nearly every summer sport federation's work, gaining momentum and attracting resources with every passing year.

Despite these challenges, federations' efforts have been impressive. We celebrate the efforts of World Athletics, World Sailing, and International Hockey Federation in the pages of this report and commend several others on comprehensive strategies and initiatives that have made a tangible positive impact on the natural world. We call on sports media to continue covering these efforts, to platform the good work, and to offer sport federations a platform to amplify their efforts- where these are legitimate, verified, and in keeping with the spirit of the SDGs. With the pandemic slowly subsiding, this next Olympic cycle is well positioned to accelerate environmental sustainability work across all federations.

There remains an apparent lack of prioritization by many federations. It's possible there is more work happening that is not being adequately reported. However, it seems that in some cases, federations remain unconvinced of the urgency to act on climate change. Thus, we call on athletes, sportspeople, activists, and fans to continue to pressure federations to act on climate change and nature. These activist actions work: since Tokyo 2020, groups of athletes in the sports of skiing and rugby, to name just two examples, have successfully influenced their international federations to do more on this agenda, resulting in more commitments, more strategy development, and more action by their respective federations. Similar work has been achieved by members of national teams: in 2020, more than 300 British Olympians and Paralympians penned an open letter to the UK Government, calling on Boris Johnson's administration to prioritize climate change. That letter received international attention and stirred awareness and action among members of parliament in the UK.

Our team noted the number of fossil fuel companies that remain involved in sport at the level of international sport federations, either supporting them directly or by sponsoring large events. With pressure from activists and new legislation in different countries, we anticipate the number of fossil fuel sponsors will drop, mirroring the patterns of divestment in other sectors like the arts. In writing this report, we had to remove some federations from contention for 'Most Improved' and 'Outstanding Leadership' because of their entanglements with fossil fuels. Federations must find new avenues for funding that are more aligned with the environmental values which the majority publicly espouse.

We are heartened by the growing number of personnel working full-time on sustainability and see tremendous potential for continued collaboration between federations to share ideas, definitions, management tools and reporting frameworks to hasten this work. There is a beautiful term commonly invoked in management research that applies here: coopetition, referring to the practice of cooperating and collaborating with competing organizations to advance shared goals. In this case, federations compete for participants, funding dollars, media attention, and fans, but they can collaborate on environmental efforts. We argue they must. The networks created by the UN Sports for Climate Action Framework and the IUCN's Sports for Nature Framework are useful in accelerating these much-needed collaborations, alongside existing ASOIF Sustainability Group work. We call on all federations to engage more deeply with collaborative efforts in this next Olympic cycle, with other sports, with national sport federations, with host cities of events, with academic researchers, with non-profit organizations working in the environmental space, and with whatever other interested parties can help carry the ball forward.

In four years, our teams at The Sport Ecology Group and The Sustainability Report intend to repeat this exercise and review all summer sport federations once again. We are hopeful there will be more progress to report.

