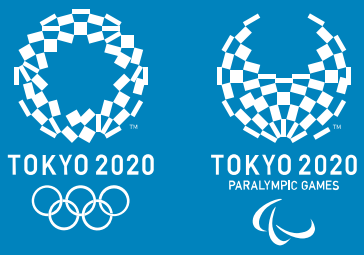

Sustainability Post-Games Report

December 2021

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Contents

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We welcome feedback, comments and suggestions.
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Statement from Tokyo 2020 President HASHIMOTO Seiko

As the last fireworks faded over the Closing Ceremony of the Tokyo 2020 Paralympic Games, the Olympic and Paralympic Games Tokyo 2020 drew to a close. Our ability to hold the Games amidst the unprecedented challenges of COVID-19 was due in no small measure to the understanding and support of many Japanese and international stakeholders, including the citizens of Japan and all those involved in the Games. You have our sincere and deepest gratitude.

Ever since my appointment as Tokyo 2020 President in February 2021, I listened to the concerns of Japanese and international stakeholders about holding the Games during the pandemic and made COVID-19 safety our top priority. I am convinced that, as the first global event held during the pandemic, the Tokyo 2020 Games provided a viable model for safely resuming socioeconomic activity in the new normal.

We have received many appreciative comments from the athletes, some saying that the conditions provided by Japan enabled them to achieve their best performance. The dynamism of these athletes, their belief in holding the Games, and their persistence within numerous constraints have brought hope and inspiration to everyone who watched.

I believe the value of holding the Olympic and Paralympic Games during such trying times lies in its ability to restore human connection and reunite the world through the power of sport.

Looking back on our preparation for the Tokyo 2020 Games, we set out early on to face the aftermath of the 2011 earthquake and tsunami. Aware of the role of sport in society, we had a responsibility to use the Games and leverage the power of sport to solve issues and place Japan on a more sustainable path.

By considering sustainability in every phase of the Games, from preparation until after the Games were over, we undertook initiatives that would provide a model for solving challenges all countries face. Through the core concept of Unity in Diversity and efforts in gender equality, we also advocated for change toward more inclusive societies. We hope that what we have achieved, as well as the obstacles encountered and insights gained, will be of intangible value to many people.

History will tell whether the Tokyo 2020 Games were a success. Meanwhile, it is critical that the people who experienced and watched these Games continue the work we started and take steps toward an even better future, believing in the power of sport. By doing so, they become part of the legacy of the Games here in in Japan and around the world as agents of change toward a more sustainable planet. As one of those people, I too will continue the work of building that legacy.

HASHIMOTO Seiko
Tokyo 2020 President

Statement from Urban Planning and Sustainability Commission Chairperson KOMIYAMA Hiroshi

The Urban Planning and Sustainability Commission, launched in 2015, has convened 10 times to carry out discussions and provide expert guidance on urban planning and sustainability initiatives for the Tokyo 2020 Games. The contributions of our work have taken various forms, including the Games Sustainability Plan and Sustainability Sourcing Code, as well as inputs into initiatives based on those documents. With the Games now behind us, I would like to briefly review our achievements and offer my perspective as the commission's chairperson.

The COVID-19 pandemic strongly impacted the Tokyo 2020 Games, forcing us not only to delay the Games by a year, but also to stage competitions without spectators at many of our venues. The pandemic has had the effect of accelerating this transitional era in which humanity now finds itself — an era of confronting challenges to the sustainability of people, planet, and prosperity . We must seize this pandemic as an opportunity to create an even better world.

Since before the pandemic, the Urban Planning and Sustainability Commission has advocated for making the Tokyo 2020 Games a sustainable society showcase. During the Games, gold, silver, and bronze medals made from recycled consumer electronics (the so-called "urban mine") were awarded to athletes on podiums of recycled plastic. Competition venues were powered on 100 per cent renewable energy. And the Olympic and Paralympic cauldron and the Olympic torches were fuelled by renewably sourced hydrogen from Fukushima Prefecture. Village Plaza, located inside the Olympic/Paralympic Village, was built using timber borrowed from local governments across Japan; that timber is now being sent back and used to make public benches and other facilities. Unity in Diversity, a core concept promoted and communicated through the Games, will speed progress in creating more inclusive societies.

These symbolic, multi-stakeholder initiatives have deeply inspired the athletes, as well as people in Japan and around the world who watched them, to contemplate what it means for our world to be sustainable and to act in service of sustainability going forward.

While the Tokyo 2020 Games are over, there are things we can still do to ensure that they are recognised as a segue into a more sustainable society. Let us bring the sustainability concepts and practices forged here in Tokyo to Paris! This is an essential part of our legacy, one we expect Paris will build upon.

As for us members of the Urban Planning and Sustainability Commission, we will do our part in our respective fields to further sustainability and keep up the work of creating a better world.

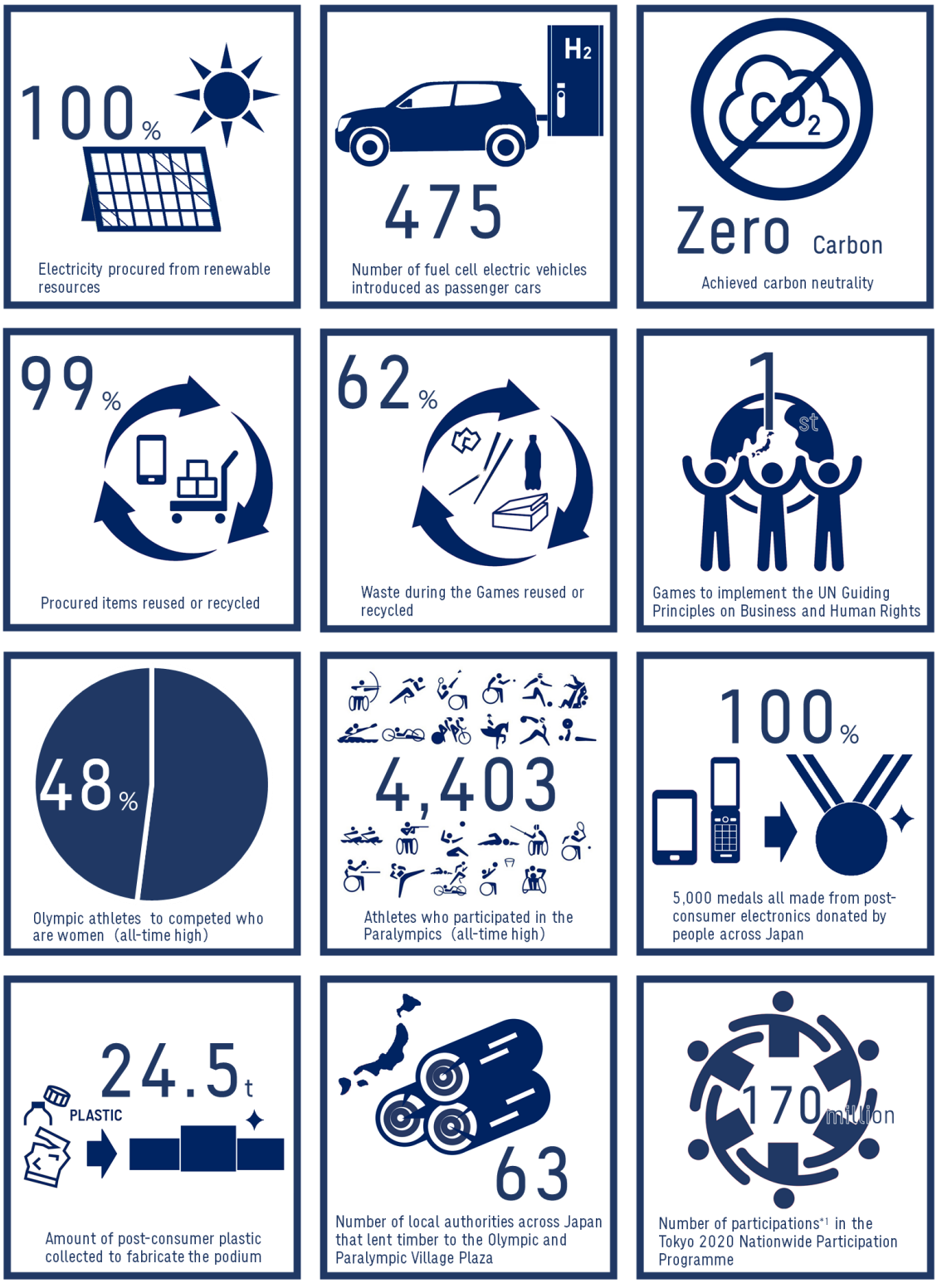
KOMIYAMA Hiroshi
Urban Planning and Sustainability Commission Chairperson

1

Basic Information on Tokyo 2020 Games Sustainability

1.1 Sustainability of the Tokyo 2020 Games in Numbers

Our Achievement

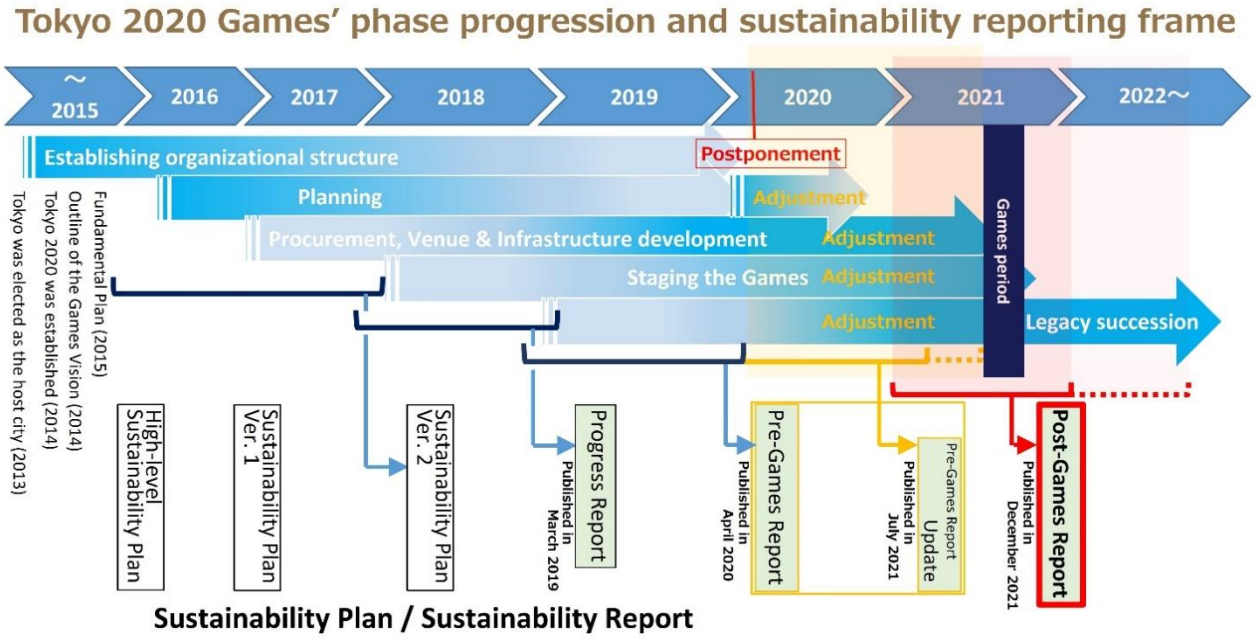


*1 The numbers represented accumulative participations [person-count] including multiple counts of participations by people who joined multiple initiatives.

1.2 About the Sustainability Post-Games Report

(1) Reporting plan (schedule)

Sustainability initiatives for the Tokyo 2020 Games were carried out based on the Tokyo 2020 Olympic and Paralympic Games Sustainability Plan. These efforts are detailed in three sustainability reports: Progress Report, Pre-Games Report (and its Update report) and this Post-Games Report.



This Post-Games Report is the last of three sustainability reports by the Tokyo Organising Committee of the Olympic and Paralympic Games (Tokyo 2020). It details information on staging the Games and information obtained after the Games. It also overviews the big picture of preparations and delivery of the Games over eight years. *1

Please also refer to the preceding plan and reports for the overall picture of the Tokyo 2020 Games sustainability.

(2) Reporting framework (adherence to international standards)

The Post-Games Report was prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option, and with reference to GRI's Reporting Principles*2.

(3) Scope of this report

All sustainability reports, including this Post-Games Report, primarily address core initiatives of Tokyo 2020 in preparing for and delivering the Games. However, sustainability initiatives related to the Tokyo 2020 Games are the domain of not only us but also Tokyo Metropolitan Government (TMG), the Government of Japan (GOJ), related local governments, sponsors and other

*1 The impact of the Tokyo 2020 Games will be addressed in reporting under the legacy reporting framework, which is a new initiative for evaluating and reporting on the impact of Olympic Games by assessing their legacy, published by the IOC in February 2018. The sustainability reports will provide supporting information alongside the legacy reporting. (See the Sustainability Pre-Games Report, *page 17*.)

*2 Reporting Principles for defining report content: Stakeholder inclusiveness, sustainability context, materiality, and completeness
Reporting Principles for defining report quality: Accuracy, balance, clarity, comparability, reliability, and timeliness

stakeholders. This Post-Games Report thus also includes important and representative initiatives by these stakeholders, as such information is likely to be useful for understanding our initiatives and the overall sustainability of the Games.

(4) Period covered by this report

This Post-Games Report mainly covers the period of activities from publication of the Update report (July 2021), through Games time and passing on the legacy, to just before conclusion of Tokyo 2020's operations (through December 2021). However, it does contain some forward-looking statements that reflect our expectations as of the date of this report's publication.

This report also repeats important content from the Sustainability Plan and previous reports to aid understanding of our initiatives as a whole.

(5) Editorial policy of this report

A key goal of sustainability reporting is to present information to stakeholders that enables them to accurately evaluate the reporting entity's efforts on sustainability. It is crucial, therefore, that sustainability reports present information on material (important) topics in an easy and appropriate manner.

The COVID-19 pandemic caused dramatic changes in preparations and delivery of the Tokyo 2020 Games. In March 2020, the decision was made to postpone the Tokyo 2020 Games — the first postponement in Olympic and Paralympic history. From that time and until the Games were held in Summer 2021, we took various measures to prevent the spread of COVID-19 infection. For this reason, Games preparations and delivery took on a different character between the roughly six-year period from Tokyo's election as host city until the postponement decision was made, and the roughly two-year period from the subsequent relaunch, through Games time, until just before the conclusion of Tokyo 2020's operations.

The differences between those two periods impacted sustainability efforts as well, in some cases requiring planning changes or new initiatives altogether. It is important to keep in mind that the social environment surrounding sustainability also changed significantly during those eight years, as people of the world witnessed and faced, and that changes in society and people's thinking influenced the Tokyo 2020 Games in various ways. Additionally, given its role in overviewing Games activities, this report must also present the outcomes of plans and targets in an organised manner.

For these reasons, we decided to organise the chapters of this report by the main sustainability themes of the Tokyo 2020 Games in order to maintain consistency with the Sustainability Plan and three sustainability reports. Meanwhile, we organised impacts and changes associated with postponement and COVID-19 measures into those that were related to Tokyo 2020's operations or cross-cutting, which we placed toward the beginning of the report, and those that pertained to each sustainability theme, which we placed in their relevant chapters.

The outcomes of targets for each theme are presented as a list in each theme.

1.3 Overview of Sustainability Initiatives

Positioning and Sustainability of the Games

(1) Basic guidelines for a sustainable Games

Tokyo 2020 has consistently recognised the importance of sustainability in the Tokyo 2020 Games*1 ever since Tokyo's bid to become the host city and the initial stages after the announcement of its election in 2013.

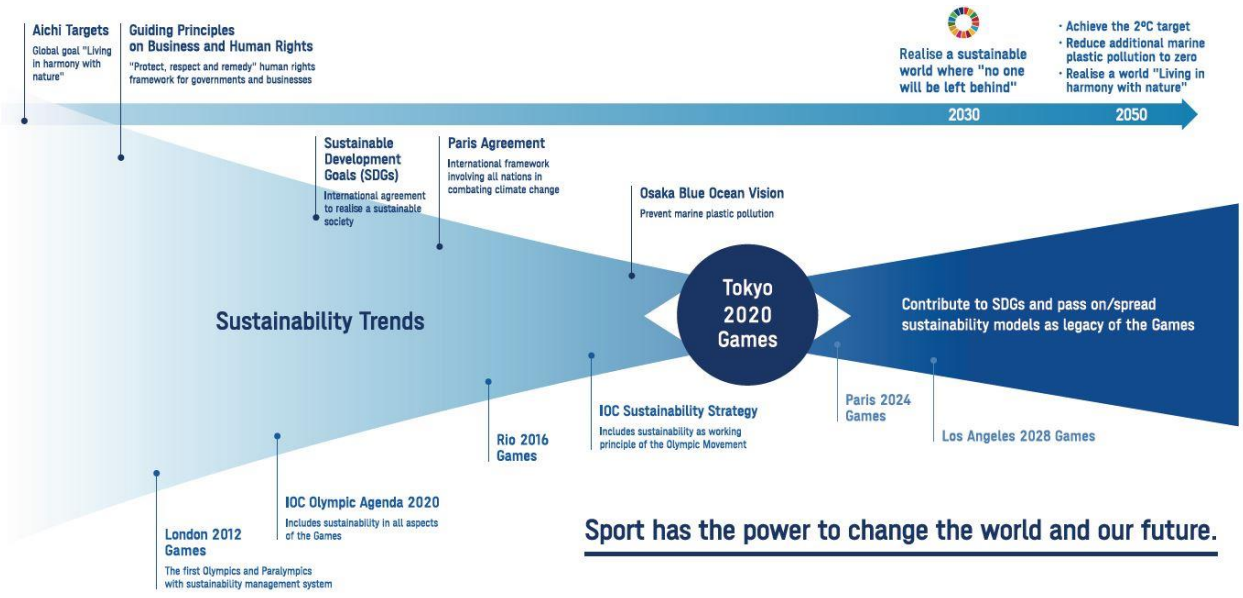
In 2014, sustainability, together with credibility and youth, was identified as one of the three key pillars of Olympic Agenda 2020, the strategic roadmap for the future of the Olympic Movement. Olympic Agenda 2020 placed great emphasis on incorporating sustainability in all aspects of the Olympic Games and encouraged all stakeholders of the Olympic Movement to include sustainability in their daily operations.

The relevance of sport in society was acknowledged in 2015 by the United Nations (UN), when sport was highlighted as an "important enabler" to achieve the ambitious agenda of the UN Sustainable Development Goals (SDGs).*2

We at Tokyo 2020 are aware of the fundamental nature and importance of human dignity. We resolved to contribute to the 2030 Agenda and the SDGs through the Tokyo 2020 Games by showing the world how 21st-century sustainable development in which "no one will be left behind" can be pursued holistically across the environmental, social and economic spheres. Our hope was for the Tokyo 2020 Games Vision to create a legacy that inspires future Olympic and Paralympic Games, future mega-sporting events and all sporting and non-sporting events worldwide.

*1 References to;
- the Tokyo 2020 Games Sustainability Policy
https://www.tokyo2020.jp/ja/games/sustainability/
- the Tokyo 2020 Games Sustainability Plans
https://www.tokyo2020.jp/ja/games/sustainability/sus-plan/index.html
- the Sustainability Reports
https://www.tokyo2020.jp/ja/games/sustainability/report/index.html

*2 See the Tokyo 2020 Olympic and Paralympic Games Sustainability Plan Version 2 *(page 11)*.



Key developments in sustainability and the Olympic and Paralympic Movement

(2) Main sustainability themes of the Tokyo 2020 Games

We selected five main themes to serve as a framework for pursuing sustainability in the Tokyo 2020 Games. These main themes are: climate change; resource management; natural environment and biodiversity; human rights, labour and fair business practices; and involvement, cooperation and communications (engagement). These themes are based on a careful deliberation process begun in 2015 that involved numerous discussions within the Urban Planning and Sustainability Commission and were joined by external experts.

To guide specific actions on these themes, we formulated a Sustainability Plan (Version 1 in January 2017; Version 2 in June 2018), defined the sustainability concept of the Games as "Be better, together — For the planet and the people," and compiled a list of specific targets and actions for each theme.

To manage sustainability in procurement processes during the preparation and delivery stages of the Games, in March 2017 we formulated a Sustainability Sourcing Code that was applied to goods and services procured by Tokyo 2020, and licensed products, and in April 2018 we began operating a grievance mechanism to address cases of non-compliance with the code.

The five main themes and their goals

Significance and Sustainability of the Olympic and Paralympic Games during COVID-19

The COVID-19 pandemic has shaken economic and social systems and had dramatic impacts on the daily lives of people all around the world. The Tokyo 2020 Games were similarly impacted, becoming the first Games in Olympic and Paralympic history to be postponed, and were held during the COVID-19 pandemic.

The Olympic and Paralympic Games is the largest sports event in the world. Holding the Games has the power to give hope and to change the world and its future. Simultaneously, it also impacts society in many ways, in part because of its unrivalled scale.

For this reason, the time from postponement until just before Games time was a period of much discussion and debate over the appropriateness and significance of holding the Games during the COVID-19 pandemic.

Recognising the Olympic and Paralympic Games' place as part of society, we at the Tokyo 2020 sought to ensure a safe and secure Games for all those involved in the Games as well as for all Japanese citizens and Tokyo residents. Working closely with relevant organisations, we aimed to hold and have been preparing for a safety-first Games by placing the highest priority on preventing the spread of COVID-19 infection*1. These efforts included the decision in March 2021 not to accept overseas spectators and the following decisions on July 8 and August 16 that we forwent the inclusion of spectators at almost all competitions of the Olympic Games*2 and all competitions of the Paralympic Games*3, respectively. During the Games-time, we thoroughly implemented concrete COVID-19 counter-measures such as infection control measures for stakeholders of their activities and screening testing in accordance with the Playbooks which outlined specific rules for stakeholders involved in the Games to follow.

At a time when COVID-19 was creating much hardship for people everywhere, we believed in the power of sport to change the world and our future, and thus, as the first global sports event to be held during the pandemic, aimed to present a model for resuming socioeconomic activity in a new normal.

Moreover, our efforts to showcase to the world a model for holistically addressing our environmental, social and economic challenges and creating impetus for social change through sustainable Games operations took on even greater significance during the pandemic.

Nonetheless, the process of preparing for and delivering the Games posed numerous challenges, and these we worked to solve or improve upon. The virtues of holding these Games were not decided when the Games ended; rather they will be judged based on the legacy that is built by all who were involved in this project as they seek to use their experience in subsequent endeavours and continue to act on their belief in the power of sport.

*1 For COVID-19 counter-measures during the preparation phase of the Games, also see the Update to the Sustainability Pre-Games Report, Chapter 3. Preparations and Organisational Structures Following Games Postponement (*page 13*).

*2 Only the venues located in Miyagi and Shizuoka prefectures had spectators. The venue in Ibaraki prefecture had only visitors from schools.

*3 Except visitors from schools.

2

Organisational Structures

2.1 Reorganisation of organisational structures

Tokyo 2020 Organising Committee (Tokyo 2020) has strengthened and reformed its organisational structure as necessary to operate efficiently in line with the projected progress through each phase.*1

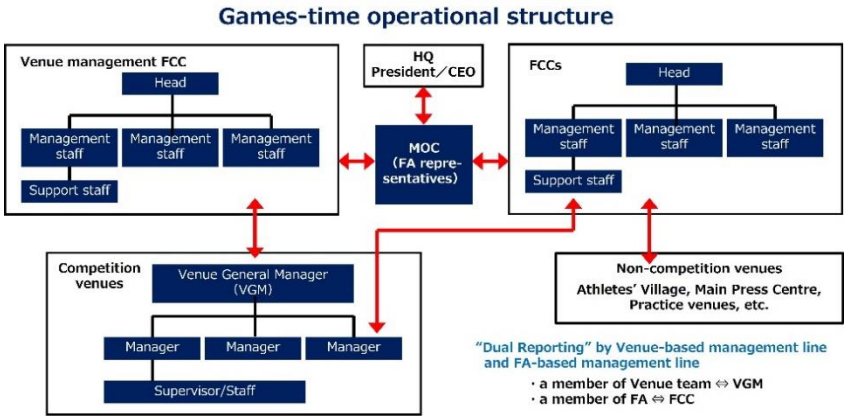
*1 For organisational structures during the preparation phase of the Games, see the Sustainability Progress Report, the Sustainability Pre-Games Report and the Update to the Sustainability Pre-Games Report.

Tokyo 2020 organisational structures at Games time

We postponed the full-scale transition to a Games-time operational structure in 2020 due to postponement of the Games. During that time, we kept the existing Functional Area (FA)-based operational structure (a structure organised by functional/operational divisions). Thereafter in June and July 2021, we transitioned fully to a Games-time operational structure.*2

*2 For planning the transition to Games-time operational structure, see the Update to the Sustainability Pre-Games Report *(page 25)*.

The Games-time operational structure was composed of multiple units working together, including competition venues, non-competition venues, Headquarters (HQ), Main Operation Centre (MOC; an organ tasked with general coordination, troubleshooting, and aggregating and distributing information), Functional Area Coordination Centre (FCC; the FA Headquarters, which supported MOC during the Games).



Building an Organisational Structure for a Sustainable Games

Sustainability (SUS) was the FA tasked with overseeing sustainability initiatives. Its mission being to enable sustainable Games operations by implementing the Sustainability Plan in collaboration with the Tokyo Metropolitan Government (TMG) and other relevant organisations and by supporting initiatives undertaken by units of Tokyo 2020.*1

*1 For more on SUS's mission, see the Sustainability Progress Report *(page 28)*.

(1) Changes in SUS operations and structure

SUS's primary role in the first half of Games preparations was to develop sustainability policies and plans at an early stage and embed sustainability into planning preparations carried out by relevant organisations and various units of Tokyo 2020. The process of developing the Sustainability Plan and Sustainability Sourcing Code from 2016 to 2018 involved discussions within Tokyo 2020 through internal forums such as the Sustainability Strategic Meeting, an internal body composed of bureau heads; coordination with relevant organisations and

stakeholders; and intensive, public discussions with bodies of experts such as the Urban Planning and Sustainability Commission. These inclusive discussions helped to instill the importance of sustainability considerations within and outside our organisation and also provided opportunities to ensure transparency and communicate externally on sustainability initiatives for the Games.

*2 See the Sustainability Plan (Version 2)

After numerical targets and specific initiatives on sustainability were established*2, SUS focused on the development of the Tokyo 2020 sustainability management system (SMS) - a systematic approach that provides guidelines for an organisation to evaluate, manage, and improve its sustainable practices. SUS also focused on supporting other FAs to implement the SMS in their sustainability efforts.

In July 2018, we assigned sustainability administrators and coordinators to each Tokyo 2020 department and, through the SMS, built an organisational structure for ensuring progress on initiatives in the Sustainability Plan.*3 Public announcements on the status of these efforts began in 2019 with the first sustainability report and other communications.

*3 See the Sustainability Pre-Games Report, Section 3.2 Sustainability Management System *(page 31)*.

Initiatives in accordance with the Sustainability Plan were implemented by all FAs with SUS's support and in partnership with other departments closely linked to sustainability (including venue development, energy, transport, waste, food & beverage, asset management, sourcing, people management, and communications), TMG, Games partners, and other stakeholders.

Proceeding to practical preparations for sustainable Games and putting them into practice at venues became an important task around the time our organisation expanded as an accelerated pace and began transitioning toward a venue-based structure. To do this, we selected some of the venue coordinators from other FAs to be sustainability contact persons*4 and, starting right before Games time, had SUS staff patrol venues to provide on-site support.*5 Meanwhile, the Sustainability FCC, which served as a SUS headquarters, consolidated information on sustainability efforts at each venue. We also set up a sustainability information booth at the Main Press Centre to communicate with domestic and international media.

*4 Those who have the role of bridging and coordinating sustainability issues and efforts between SUS and respective venues, and among related venue members.

*5 For sustainability considerations in venues, see next section, Practicing sustainability in venue operations (*page 13*).

SUS operated with a team of around 20 people during 2016 – 2018, the beginning of planning phase. Then, its personnel organisation, including expertise of respective sustainability themes, was reinforced in 2017-2018 when planning tasks went into full swing. From 2018 onward to the Games-time, SUS had 24 members.

The SUS team was composed mainly of seconded employees from TMG, the Government of Japan, local governments, and Games partners.

(2) Lessons and takeaways from the Games

Sustainability operations of the Tokyo 2020 Games were broad in scope, ranging from the development of plans and standards, to implementing and communicating diverse initiatives, to practicing sustainability at venues during the Games. This work was primarily focused on environmental and human rights issues.

Managing both environmental and human rights issues within the purview of a single FA had various benefits. It made it possible to view individual issues in a manner that integrated both perspectives, and allowed SUS staff to approach their work of implementing sustainability at Games-time venues with a holistic mindset. On the other hand, the type of work and expertise required from the environment and human rights fields are drastically different, and the breadth

of these two fields together presented difficulties for management, for example, securing personnel with the appropriate experience and expertise. Moreover, SUS was limited in its budget, work scope, and staff expertise, and close cooperation with other Tokyo 2020 departments and relevant organisations was consistently challenging from early during the strategic planning phase through to Games-time.

Shifting away from a FA-based organisational structure and creating a new structure to implement sustainability on a venue-basis during the Games was also a major challenge. Given our limited staff size, we decided to adopt a structure in which SUS staff patrolled venues on a rotational basis supported by the sustainability contact persons that were based permanently at the venue. However, other operational methods are possible, such as posting SUS staff at specific venues.

At future Olympic and Paralympic Games and other large-scale sports events, it would be effective that there is a knowledgeable champion for sustainability at a senior level in the organisation so that responsibility for sustainability could be embedded effectively across the organisation as well as while working with multiple delivery partners. It is also crucial that organisers secure people with the necessary skills to correctly lead and manage sustainability, anticipate the shift to a venue structure and adapt their organisational structure flexibly, by outsourcing if necessary, for example, as they proceed through the planning and operational phases, and in other ways develop a structure most suitable for the functions required and capabilities of the organisation.

Practicing sustainability in venue operations

Venue operations at Games-time is a crucial area for achieving sustainable Games in addition to competition venue development and other preparations. Because many stakeholders are present and active at venues during Games-time, on-site staff need to be especially mindful of sustainability in various aspects of venue operations.

We therefore worked to incorporate sustainability into the operations of each venue[*1] by developing the necessary tools and teams. For example, we created a list of considerations and measures and assigned sustainability contact persons at the venues.

For information on sustainability considerations in the venue development phase, see Section 3.7 Venue Development (*pages 109-119*).

*1 All competition venue, IBC/MPC, Olympic and Paralympic village, and Tukiji/Wakasu Depo

(1) Specifying and checking sustainability practices

Given the breadth of factors to consider in venue operations, from environmental impacts to human rights, we prepared a comprehensive list of sustainability considerations for each venue ahead of time, including what things to keep in mind when working at a venue and how to address problems that might arise. Considerations included in these lists were decided based on the main sustainability themes of the Games, initiatives described in the Sustainability Plan, conditions specific to each venue (such as wildlife), and issues that arose at test events. We carried out these practices while having discussions with the IOC advisors.

(Overview of sustainability considerations)

Theme	Focus	Considerations and action items (items common to all venues are shown below)
Resource Management	3Rs and waste reduction	・Properly sort waste according to sorting categories ・Provide necessary amount of food and reduce food waste ・Do not offer single-use plastic shopping bags for free in stores
Human Rights, Labour and Fair Business Practices	Human rights and D&I	・Check that the prayer room for spectators is in an acceptable condition ・Check that content to be broadcasted is free of discriminatory or biased language
	Ensuring accessibility	・Check that wheelchair users have unobstructed paths of movement ・Check that spectators are being given adequate mobility-related guidance and support
Natural Environment and Biodiversity	Water, air, noise, and vibration	・Take measures to prevent spills when fuelling boats, etc. ・Implement safety measures for electric generators, such as preventing knock-overs and fuel spills
	Natural environment and biodiversity	・Do not damage plants when installing equipment and wiring ・Follow designated procedures when a designated invasive alien species is found
Climate Change	Energy saving and CO_2 reduction	・Do not idle when operating a vehicle ・Take care to save electricity and water in offices

To facilitate the integration of sustainability into venue operations, we assigned permanent on-site staff members to the role of sustainability contact persons who bridged and coordinated sustainability efforts among SUS and respective venues, implemented e-learning and operational readiness activities,*1 and created ongoing reminders for staff at each venue; for example, through awareness posters on how to sort waste.

Based on the list of sustainability considerations shown above, Games staff working at each venue checked whether sustainability practices were being properly implemented, endeavoured to prevent issues, and addressed or rectified issues that arose. When monitoring venues during the Games, the patrolling staff of Sustainability (SUS) Functional Area confirmed the status of sustainability efforts, addressed issues that required action, and encouraged on-site staff to keep sustainability in mind.

It is also important to note that the number of sustainability considerations requiring implementation, such as waste reduction, were significantly reduced at many venues due to the absence of spectators.

(2) Lessons and takeaways from the Games

By listing, implementing, and monitoring sustainability practices, we were able to promote venue operations that took sustainability into consideration and also present an example of how to

*1 Operational Readiness (OPR) activities refers to the exercises for review and improve operation plans and enhance our operating capabilities (tabletop, simulations, venue rehearsals, etc.)

An e-learning course for Games staff, titled "Sustainability Considerations at Venues" (held January 2021)

Awareness poster for saving energy and sorting waste at Games-time venues

＊2 Designated Invasive Alien Species:
An alien species designated by Cabinet Order based on the Invasive Alien Species Act that will cause or is likely to cause adverse impacts on ecosystems, human safety, or agriculture, forestry and fisheries.

Using samples to create sings on how to sort waste

practice a holistic model of sustainability that includes both environmental and human rights factors. When staff discovered the redback spider, a designated invasive alien species (IAS)*2, at a venue, they removed the spider and issued an alert following designated procedures, thus preventing human injury and impacts on the competition. Other staff showed creativity in their response to conditions at each venue, such as using samples to create signs on how to sort waste.

- On the other hand, we had difficulty throughout the Games in getting all staff members to carry with them and act on an awareness of sustainability, as evidenced by cases of inadequate sorting of waste. We expect it would have been more effective to share and integrate sustainability practices into venue operations early in the planning and creation of work duties, rather than when venue operations began. We also realised how important it is to follow a PDCA cycle for implementing sustainability practices. This cycle would involve defining in the Sustainability Plan and FA Operations Plan specific procedures and lines of teamwork and reporting for preventing and responding to issues, and then checking regularly whether all necessary preventive measures are being taken and whether sustainability is being properly integrated into venue operations. When doing so, we imagine it would be effective to adapt each list of considerations to the unique circumstances of each venue and identify those considerations that need to be prioritised based on potential risks and the size of their impacts, since local conditions vary between venues.

In addition, SUS FA conducted multiple case studies to monitor the venues. We have improved our ability to check if there were any sustainability issues in general and standardised the necessary measures. We believe that it would be more beneficial to allocate personnel with sustainability expertise to each venue and to provide such training to staff.

One obstacle to integrating sustainability practices more thoroughly into venue operations was how to get all venue users involved, not just staff and volunteers. Spectators and relevant organisations such as journalists and broadcasters need to be informed and their cooperation enlisted.

We worked on incorpoating sustainability into the operation of the Tokyo 2020 Games while having discussions with the IOC advisors. Organisers of future Olympic and Paralympic Games and other large-scale sports events should identify sustainability risks that could arise and how to manage them when operating venues, and integrate sustainability practices throughout venue operations by having a shared understanding among all relevant parties and those who manage such risks.

2.2 Sustainability Management System

Establishing and implementing an ISO 20121 management system

To ensure that the Games will be an event conscious of its effects on sustainability, Tokyo 2020 introduced a management system in accordance with the ISO 20121 standard[*1] for event sustainability management systems.

To develop this system, we first conducted an ISO-based assessment (gap analysis) of our activities to identify new actions that needed to be taken, allowing us to make the most of our existing management system.[*2]

Key activities related to the establishment and implementation of our management system for the Games are described below.

(1) Sustainability Policy and Plan

We began by defining our core philosophy and main sustainability themes[*3] in the Sustainability Policy, and then preparing and announcing a Sustainability Plan, in which we set down initiatives for achieving specific targets on sustainability. When formulating the Sustainability Plan, we held dialogues with a broad range of stakeholders. This included discussions with external experts and other specialists through the Urban Planning and Sustainability Commission, and opening the plan to public comments.

This open approach to formulating the Sustainability Plan, supported by specific targets and initiatives identified in the formulation process, allowed us to communicate more effectively on the Games' sustainability. Moreover, discussions amongst relevant departments within Tokyo 2020 during the planning process helped to foster a broad internal awareness of sustainability and an understanding of their respective roles for achieving the targets.

(2) Sustainability administrators and coordinators

When it came time to implement the Sustainability Plan, cooperation between Sustainability (SUS) FA and other departments became even more important. For this reason, during the planning process, we appointed staff within each FA to the position of sustainability administrator or coordinator. The administrators and coordinators served a valuable role in promoting sustainability initiatives and achieving targets by promoting actions based on the Sustainability Plan, monitoring progress, and communicating and coordinating with SUS.

(3) Progress management

To centralise management of efforts to achieve targets set out in the Sustainability Plan, we compiled all targets, their planned deadlines, the names of departments in charge of each target, and other information into a responsibility matrix and shared it across the organisation.

We managed progress by having each department record the status of initiatives in the responsibility matrix. Every six months, SUS summarised the state of progress and, when there were delays or barriers to achievement, worked with relevant departments to explore a solution.

This centralised management method helped to reduce potential sustainability-related risks and also facilitated information sharing and teamwork between SUS and other departments.

*1 ISO 20121: Its purpose is to manage the impact of event operations on the environment, economy, and society and to improve event sustainability.
It was issued in 2012, the year of the London Olympic and Paralympic Games, which prompted its establishment.
Tokyo 2020 was third-party certified to the ISO 20121 requirements in October 2019.
The London 2012 Games, Rio de Janeiro 2016 Games, and PyeongChang 2018 Games obtained third-party ISO 20121 certification.

*2 The gap analysis was conducted in 2017. At the time, Tokyo 2020 had already been conducting stakeholder engagement (discussions within the Urban Planning and Sustainability Commission, holding public comment sessions, etc.; see Sections 1.3(2) and 2.1(1)) and supply chain management (discussions and formulation of a sourcing code; see Sections 1.3(2) and 3.6). These activities were found by the gap analysis to conform to the requirements of ISO 20121, and were thus integrated into the ISO 20121 management system.

*3 The main sustainability themes were selected taking into account discussions held by the Urban Planning and Sustainability Commission, which included outside experts. See Section 1.3(2).

(4) Management review

SUS reported the status of sustainability initiatives to Tokyo 2020's CEO once a year (from 2019 to 2021). The management review was a useful opportunity for reporting to the head of the organisation a comprehensive update on sustainability initiatives in general, including societal trends related to sustainability, and to receive the Director General's direct input and instruction on those efforts.

(5) Internal audits

The operational status of the management system was periodically checked through internal audits every six months (from 2019 to 2021). Tokyo 2020 staff trained in internal auditing conducted document reviews and interviews, identified and noted problems and necessary improvements, and reported their findings to the Director General. Departments that received guidance acted promptly to rectify the issue or make improvements.

Internal auditors pointed out that the management system should be applied more thoroughly within the organisation. In response, we reinforced implementation by holding informational meetings with Executive Directors, with sustainability administrators and coordinators, and with each unit, and these meetings led to an improvement in our performance.

Acquiring and maintaining third-party certification

The management system we adopted underwent third-party audits to check for conformity with the ISO 20121 standard. We obtained ISO 20121 certification in October 2019. Following certification in 2019, we continued to receive third-party surveillance audits to confirm proper implementation.Surveillance audits in 2020 and 2021 both confirmed that proper implementation of the management system was being maintained.

Audits focused on the establishment and implementation of the management system and the status of sustainability initiatives in Games preparations and test event operations, but also covered other important elements of a sustainable Games, including supply chain management, occupational health and safety, and measures to address heat and COVID-19.

The 2021 audit included on-site audits of venues and other facilities and events during the Games. The audit covered the Olympic Closing Ceremony, the Olympic/Paralympic Village, and competition venues (multiple selected via sampling) and checked the status of operations during the Closing Ceremony, Village operating period, and competitions. The audits pointed out that even for wastes that were seldom thrown, it would be better to put labels for them in the sorting instructions of waste storage facilities. Following this guidance, we made improvements during Games time.

Responding to Games postponement and COVID-19

Even with the changes that occurred due to Games postponement and COVID-19, we continued to operate following the ISO 20121 framework, and also assessed the impacts of those changes on the sustainability policies and targets of the Games. As a result, we confirmed that it was unnecessary to change the policies and targets and decided to continue our initiatives.

Meanwhile, individual initiatives for achieving the sustainability targets were impacted in ways described in subsequent chapter/sections.*1 We therefore performed checks and evaluations within the management system on a continual basis to ensure that each initiative was being implemented properly taking such impacts into account.

*1 For more on impacts related to Games postponement and COVID-19, see also the Update to the Sustainability Pre-Games Report.

Benefits of ISO 20121

The establishment, operation, and third-party certification of a management system conforming to ISO 20121 had wide-ranging benefits, as outlined below.[*1]

*1 Key activities associated with the benefits described are shown in parentheses.

● **Benefits of establishing and operating the system**

- Clearly defined our organisational policies, announced our commitment to internal and external parties, and fostered shared understanding within the organisation (development and announcement of Sustainability Policy and Sustainability Plan)
- Reduced potential risks associated with sustainability initiatives, and ensured that proper procedures were followed (progress management, management reviews, internal audits, third-party audits, stakeholder dialogues)
- Increased staff's understanding about sustainability and promoted collaboration and information sharing within the organisation (preparation of Sustainability Plan, progress management, appointment of sustainability administrators and coordinators, management reviews)
- Enabled continuous improvement following a PDCA cycle[*2] (progress management, management reviews, internal audits, third-party audits, corrective action and improvement)

*2 Method of continually improving a process or operation through a repeated cycle of four stages: Plan, Do, Check, Act

● **Benefits of acquiring third-party certification**

- Validated the appropriateness of Tokyo 2020's management system
- Improved the Games' credibility in external communications, resulting in a better reputation
- Increased the recognition of sustainability initiatives at events

See the following chapters for more information on the outcomes of targets resulting from implementation of the ISO 20121-certified management system.

Lessons and takeaways from the Games

As explained above, Tokyo 2020 conducted an evaluation of its activities (gap analysis) using the ISO 20121 framework in 2017, established the management system by developing missing components, and then acquired third-party certification in 2019, approximately two years later. This seems relatively fast for an organisation of our size. We recognise at least two factors that contributed to this speed: (1) We used existing systems when establishing the system; and (2) We had already been implementing certain key components of the ISO 20121 standard, including discussions with experts and preparation of the Sustainability Sourcing Code.

On the other hand, it was difficult to enhance sustainability awareness and integrate the sustainability management system across our organisation when it was growing rapidly ahead of the Games.[*1] In an effort to do this, we conducted training for new hires and periodic e-learning for existing staff, kept staff informed through the intranet, and held repeated senior staff meetings and briefings for sustainability coordinators. These efforts were productive to an extent, but ultimately failed in certain ways to achieve complete integration. Considering the potential for unexpected adjustments needing to be made when developing and implementing the management system, it may have been better to establish the system in an early stage.

*1 Tokyo 2020's staff grew from 44 members at its initial launch in February 2014, to around 470 (March 2016), 1,350 (March 2018), 2,050 (January 2019), 3,300 (January 2020), and 7,000 during the Games in 2021.

There are not many previous examples of event sustainability management systems being introduced in Japan. Tokyo 2020's approach is just one of those examples, and it is important to introduce a system that suits the size and nature of the event. We hope that organisers of various

future events will make the most of ISO 20121 management systems as a method for integrating sustainability into their organisational operations.

3

Main Sustainability Themes

3.1

Climate Change

Towards Zero Carbon

3.1 Climate Change

Overview

With the world experiencing heat waves, heavy rains and other natural disasters and extreme weather events that are getting more severe each year, climate change measures have become urgent issues that align directly with the SDGs. In October 2020, the Government of Japan (GOJ) declared to achieve carbon neutrality by 2050, and in April 2021 GOJ declared that Japan aims to reduce its greenhouse gas emissions by 46 per cent in fiscal year 2030 from its fiscal year 2013 levels, continuing strenuous efforts in its challenge to meet the lofty goal of cutting its emission by 50 per cent. In October 2021 the Plan for Global Warming Countermeasures, Strategic Energy Plan and Long-Term Strategy under the Paris Agreement were decided by the Cabinet. Tokyo Metropolitan Government (TMG) announced new targets in January 2021: to reduce greenhouse gas (GHG) emissions in Tokyo by 50% by 2030 (compared to 2000 levels) and to increase the use of electricity generated from renewable sources to approximately 50%.

With the Games originally scheduled to be held in 2020 when the Paris Agreement*1 started implementation, Tokyo 2020 Organising Committee had committed to a "Towards Zero Carbon" engagement in 2018, an ambitious major goal for Japan at the time when Sustainability Plan (Version 2) was formulated. We worked on climate measures for the Games with the aim of being at the forefront of building the groundwork for decarbonisation with collective participation, through a carbon management system that focuses on enhancing energy efficiency and transitioning into renewable energy use to the maximum extent possible.

For carbon management, we calculated our carbon footprint to determine the current status. Based on this, we implemented measures that include shifting to renewable energy, revising plan to avoid emissions and conserve energy. For emissions that cannot be eliminated even with these measures, we decided to fully compensate them. We used the PDCA cycle approach for the 12 separate targets we had set to carry out our carbon management initiatives, and were able to generally achieve these targets. On the other hand, the COVID-19 pandemic had a huge impact on our climate measures. In particular, the fact that there were no spectators from overseas and most events were held in venues with few spectators had a large impact in reducing our carbon footprint compared with what we had originally predicted..

*1 An international framework on climate change for 2020 and beyond, adopted at the 2015 United Nations Climate Change Conference (COP21) held in Paris. It aims to strengthen the global response to the threat of climate change, by holding the global average temperature increase to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C, increasing the ability to adapt to climate change impacts, and making finance flows consistent with a pathway towards low emissions and climate-resilient development, among others.

Completion of separate targets

Deep green: Completed

Pale green: Not achieved but mostly completed

Items			Target (including qualitative targets, implementation plan)	Main indicator	Performance Refer to page 40~43 of the Sustainability Pre-Games Report for the names of each venue.
Emissions Avoidance		[Construction] 1. Strategic venue planning for the maximum use of existing venues and public transport networks	Use of existing competition venues Ratio: 58%	Number of existing competition venues/total number of competition venues	58% (25 out of 43 venues)
		2. Ensuring high environmental performance in the construction of venues	Number of venues with passive design: 5	Number of venues with passive design	Five new permanent venues (See the Sustainability Pre-Games Report (*page 40*))
			Use of recycled materials in venues and the amount used	Amount of recycled materials used in venues	Used recycled crushed stone, etc. at various venues. See Section 3.7 Venue Development (*pages 152-153*)
			Use of environmentally conscious materials	Venues that use environmentally conscious materials	[Examples of extensive use of native Japanese wood] - Olympic Stadium - Ariake Gymnastics Centre - Olympic/ Paralympic Village Plaza
		[Operation] 3. Maximum procurement of materials and items with high environmental performance	Procurement of materials and items compliant to the Sourcing Code	Use of goods and materials with high environmental performance ・ Amount of recycled fibre used ・ Amount of recycled metal used in medals	[Recycled fibre] Used for uniforms for approx. 88,000 people [Tokyo 2020 All Medal] Gold: Approx. 32 kg Silver: Approx. 3,500 kg Bronze: Approx. 2,200 kg
Emissions Reduction	Reduction measures	[Construction] 4. Construction of venues by effectively using energy saving technologies	Three new permanent venues aiming for satisfying CASBEE*1 Rank S	Number of venues which aims for satisfying CASBEE Rank S, etc.	Four venues with energy saving technologies equivalent to CASBEE Rank S (See the Sustainability Pre-Games Report (*page 41*))
			Temporary indoor sport venues certified with CASBEE Rank S for short-term use	Number of venues which satisfy CASBEE Rank S, etc.	The only one temporary indoor sport venue (See the Sustainability Pre-Games Report (*page 41*))

			Seven new permanent venues with floor areas of 2,000m^2 or more to satisfy Level 3 of the Tokyo Green Building Programme and achieve more than 30% energy reduction rate (ERR) of facilities compared to standard buildings	Number of venues which satisfy Level 3 of the Tokyo Green Building Programme Evaluation and with more than 30% ERR of facilities compared to standard buildings	All of seven new permanent venues with floor areas of 2,000m^2 or more (See the Sustainability Pre-Games Report (*page 41*))
		[Operation] 5. Maximum use of facilities and equipment with high energy efficiency	Maximise use of high energy efficiency equipment	Number of high energy efficiency equipment in use ・ Number of temporary venues with LED lighting and high-performance air conditioners	- Used LED lighting in principle in overlay*2 (For other items, see Appendices (*page 138*))
		6. Implementation of energy management in venue operations, and install and use building and energy management system (BEMS) in new permanent venues	Optimal use of lighting and room temperature in office facilities	Status of optimising lighting and room temperature in office facilities	Put up environmental-awareness-raising poster at rooms at venues and checked status during the Games when Sustainability Department staff went round the venues
			Number of venues using BEMS: 4	Number of venues using BEMS	Four venues (See the Sustainability Pre-Games Report (*page 41*))
		7. Reduction of CO_2 emissions through recycled use of items as much as possible	Ratio of reuse and recycling of procured items: 99% (linked with resource management target)	Amount of recycling and reuse/amount procured	99.97% More than 99% of the procured items were reused or recycled. (See Section 3.2 Resource Management (*page 44*))
		8. Promotion of transport with lower environmental load	Proportion of low-pollution and fuel-efficient vehicles for passenger cars: 100%	Passenger car model composition	95% Some vehicles that had to be modified, such as for use in road races and other events, could not be certified as low-emission vehicles (Ministry of Land, Infrastructure, Transport and Tourism)
			Average CO_2 intensity of vehicles used in the Games : 80g-CO_2/km	Average CO_2 intensity of vehicles used in the Games (g-CO_2/km)	- Attained 80g-CO_2/km or less based on model composition of vehicles used in the Games - Used hydrogen from renewable energy sources in some FCEVs
		9. Maximum reduction of greenhouse gases (GHGs)	Reduction of alternative HFCs	Actual installation of equipment that use natural refrigerant	Introduced 5,987 units of equipment that use natural refrigerant and low-GWP (global warming potential)

		(e.g. hydrofluorocarbons (HFCs))			equipment and 15,460 units of other alternatives (See Appendices (*pages 138-139*))
	Renewable Energy	[Construction] 10. Installation of facilities that use renewable energies in permanent venues	Venues in which solar photovoltaic (PV), solar heat thermal or geothermal heating/cooling systems are installed and the capacity of the installed systems: Seven venues	Total number of facilities with installation and installed capacity (kW)	- Seven venues - Total capacity of solar PV systems: Approx. 515 kW - Total capacity of solar heat thermal systems: Approx. 462 kW - Total capacity of geothermal heating/cooling systems: Approx. 1,523 kW (See the Sustainability Pre-Games Report (*Page 260*))
		[Operation] 11. Maximum use of renewable energy	Rate of electricity use from renewable energy: 100%	・Amount of electricity use from renewable energy sources during operation ・When no available electricity from renewable energy sources, amount of electricity use from renewable energy sources using tradable green certificates and others	Used 62.5million kWh of electricity from renewable energy. Achieved 100% usage rate ・ Direct sourcing of renewable electricity: 20.6% ・ Power generated by renewable energy system at venue: 0.6% ・Green certificates: 78.8%
			Use of renewable energy for other than electricity	Use of hydrogen energy from renewable energy sources in areas other than vehicles	Used hydrogen from renewable energy sources for part of the Olympic and Paralympic cauldron and torch relay, and part of the Olympic/ Paralympic Village facilities
Carbon Offset		12. implementation of offset CO_2 and other greenhouse gases that are inevitably emitted even with the implementation of elimination/ reduction measures	Implement carbon offset or other measures	Amount of carbon offset by credits[*3] in line with the programme for the Tokyo 2020 Games	- Participated organisations: 217 - Volume of credits donated: approx. 4,830,000 t-CO_2
				The outcome of reduction initiatives towards decarbonisation, engaged by various actors	- 9 applications - Apprpx. 250,000 participants (as of Sep. 2021)

*1. Comprehensive Assessment System for Built Environment Efficiency (CASBEE) is the green building certification system in Japan for evaluating and rating the environmental performance of buildings and the built environment.

*2. Overlay is defined as structures and equipment added to the Games venues, only temporarily for the duration of the Games for operational purposes. Examples are: prefabricated structures, tents, and broadcast lighting.

*3. A credit refers to the greenhouse gas reductions achieved, which is tradable among parties through certification programme after verification.

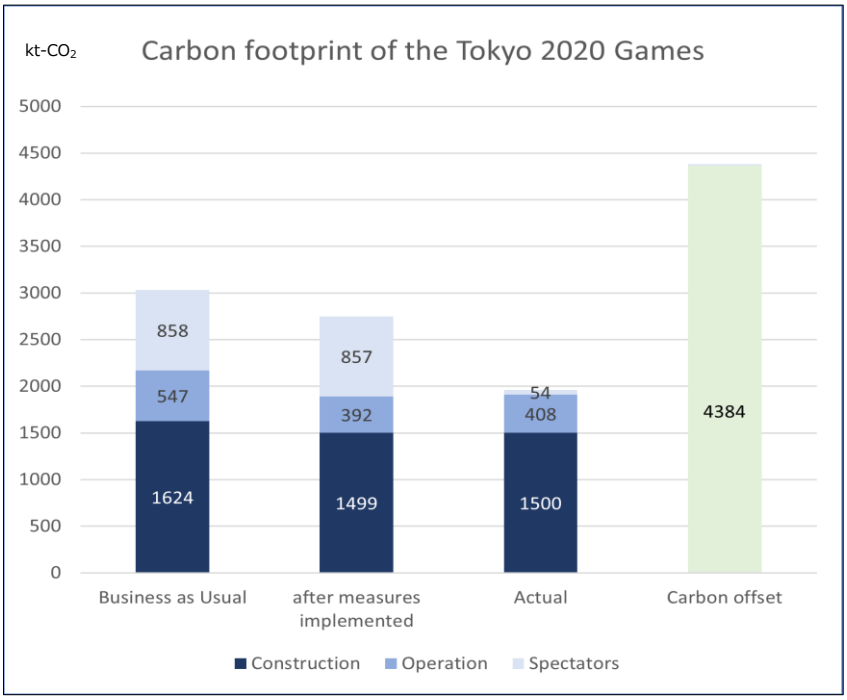
Carbon footprint and carbon offset

We had previously published our carbon footprint calculations twice, in June 2018 and in April 2020, for the case with business as usual when no extraordinary measures were taken (BAU case) and the case when effects of venue plan revisions, energy conservation and other measures were taken into account (an estimate based on effects of measures being implemented).

For this report, we recalculated our carbon footprint based on the actual values obtained after the Games. We then carried out carbon offsetting based on our post-Games carbon footprint.

(1) Carbon footprint calculations

a. Carbon footprint of the Tokyo 2020 Games



Category	BAU	After measures implemented	Actual	Offset
Construction	1.624 million t-CO_2	1.499 million t-CO_2	1.50 million t-CO_2	
Operations	0.547 million t-CO_2	0.392 million t-CO_2	0.408 million t-CO_2	
Spectators	0.858 million t-CO_2	0.857 million t-CO_2	0.054 million t-CO_2	
Total	3.029 million t-CO_2	2.748 million t-CO_2	1.962 million t-CO_2	4.380 million t-CO_2

b. Breakdown of carbon footprint

Carbon footprint details						
Item			Related organisation	Emissions with revised BAU*1 ($kt\text{-}CO_2$)	After measures implemented ($kt\text{-}CO_2$)	Actual ($kt\text{-}CO_2$)
Construction (by venue)	Newly constructed venues	TMG permanent venues	TMG	511	336	336
		Olympic Stadium	GOJ/Japan Sport Council (JSC)	465	311	311
		Olympic/Paralympic Village	TMG	405	553	553
		New venues (temporary parts)	Tokyo 2020	98	83	83
	Temporary venues		Tokyo 2020	87	89	9
	Existing venues		Tokyo 2020/ Other facility administrators	58	127	127
	Subtotal			**1,624**	**1,499**	**1,500**
Operation	Energy consumption		Tokyo 2020 /TMG/Other facility administrators	64	17	22
	Overlay*2		Tokyo 2020	133	11	15
	IT services		Tokyo 2020	44	44	44
	Ceremonies		Tokyo 2020	17	25	25
	Torch relay		Tokyo 2020	3	3	2
	Security		Tokyo 2020	26	26	26
	Medical		Tokyo 2020	11	11	11
	Advertisement and publicity		Tokyo 2020	13	13	13
	Logistics		Tokyo 2020	5	20	20
	Commemorative coins		Tokyo 2020	2	2	2
	Medals		Tokyo 2020	0.1	0.1	0.1
	COVID-19 measures		Tokyo 2020 /TMG/GOJ	0	0	1
	People involved in the Games	Catering/ Travel Accommodation/ Paper/ Uniform/ Use of offices/ Office equipment	Tokyo 2020	228	221	227
	Subtotal			**547**	**392**	**408**
Spectators	Accommodation		Tokyo 2020	168	168	4
	Food and beverage served at venues		Tokyo 2020	30	30	1

	Shopping (official licenced goods)	Tokyo 2020	49	49	49
	Travel	Tokyo 2020	611	610	0.1
	Subtotal		858	857	54
Total			3,029	2,748	1,962

*1 When no special measures are implemented (business as usual (BAU) case).

*2 Overlay boundary (i.e. scope of calculation) in calculating the carbon footprint is as follows: Tents, prefabricated structures, modular housing, containers and modular toilets for operational purposes.

Notes :

- The value of "energy consumption" includes CO_2 emissions from the use of gas and heat in addition to electricity.
- CO_2 related to "spectators" decreased due to no admission of overseas spectators and the fact that many of the venues had few spectators.
- Since the official licenced goods were manufactured before the Games, the emissions from "shopping (official licenced goods)" were not affected by such changes in the Games operation.
- Recalculated the BAU and After measures implemented according to the calculation of Actual.
- For CO_2 emission intensity used for the calculation, see the Sustainability Pre-Games Report (*page 47*).

Event held with few spectators
(Ariake Gymnastics Centre)

(2) Details of the carbon footprint calculations

To recalculate, we mainly used values that were actually taken, such as energy consumption and the number of people including Games-related personnel, as a measure of the levels of activity. The numbers for the levels of activity were obviously affected by the postponement of the Games and the measures taken against COVID-19.

a. Energy consumption (renewable energy, hydrogen)

During the Games, the amount of electricity used at competition venues, Olympic/Paralympic Village and International Broadcast Centre/Main Press Centre (IBC/MPC) totalled 62.5million kWh, which we were able to cover with 100 per cent renewable energy. This resulted in a reduction of about 30,000 t-CO_2. In addition, since hydrogen from renewable energy sources was used as fuel for the Olympic and Paralympic cauldron at the Opening and Closing Ceremonies, it led to a reduction in CO_2 compared to the case where all the fuel for the cauldron was LPG.

b. Overlay

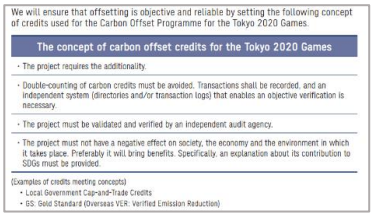
For overlays, while we were able to reduce the area of prefabricated buildings and other structures to simplify the Games, the overlay lease period was extended for prior use of some venues and for maintenance of temporary venues during the period when the Games were postponed, resulting in slight variations in CO_2 emissions.

c. Torch Relay

Because of the COVID-19 pandemic, the number of participants in the Flame Lighting Event in Athens was significantly reduced, which also led to reducing CO_2 emissions. We were unable to hold the torch relay on public roads in some cases. Instead, we held flame lighting ceremonies in various venues to pass on the Olympic flame as a replacement measure for the torch relay on public roads, resulting in a reduction of about 750 t-CO_2.

d. Spectators

Because there was no admission of overseas spectators, CO_2 emissions generated by the movement and accommodation of overseas spectators fell by about 340,000 t-CO_2. A further reduction of 460,000 t-CO_2 was realised because many of the venues had few spectators.


We will ensure that offsetting is objective and reliable by setting the following concept of credits used for the Carbon Offset Programme for the Tokyo 2020 Games.

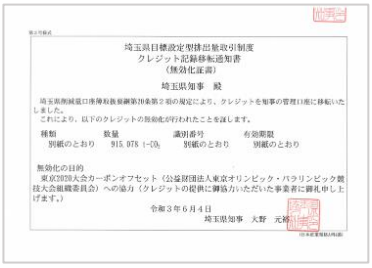
The concept of carbon offset credits for the Tokyo 2020 Games

- The project requires the additionality.
- Double-counting of carbon credits must be avoided. Transactions shall be recorded, and an independent system (directories and/or transaction logs) that enables an objective verification is necessary.
- The project must be validated and verified by an independent audit agency.
- The project must not have a negative effect on society, the economy and the environment in which it takes place. Preferably it will bring benefits. Specifically, an explanation about its contribution to SDGs must be provided.

(Examples of credits meeting concepts)
- Local Government Cap-and-Trade Credits
- GS: Gold Standard (Overseas VER: Verified Emission Reduction)


東京都キャップ＆トレード制度
クレジット記録移転通知書
（無効化証書）

東京都（東京2020大会関連オフセット）殿


埼玉県目標設定型排出量取引制度
クレジット記録移転通知書
（無効化証書）

埼玉県知事　殿

Certificate of credit cancellation issued by Tokyo and Saitama

e. COVID-19 measures

We established a temporary testing centre in the Olympic/Paralympic Village and purchased commodities for COVID-19 measures, which increased CO_2 emissions by approximately 1,000 t-CO_2.

(3) Carbon offset

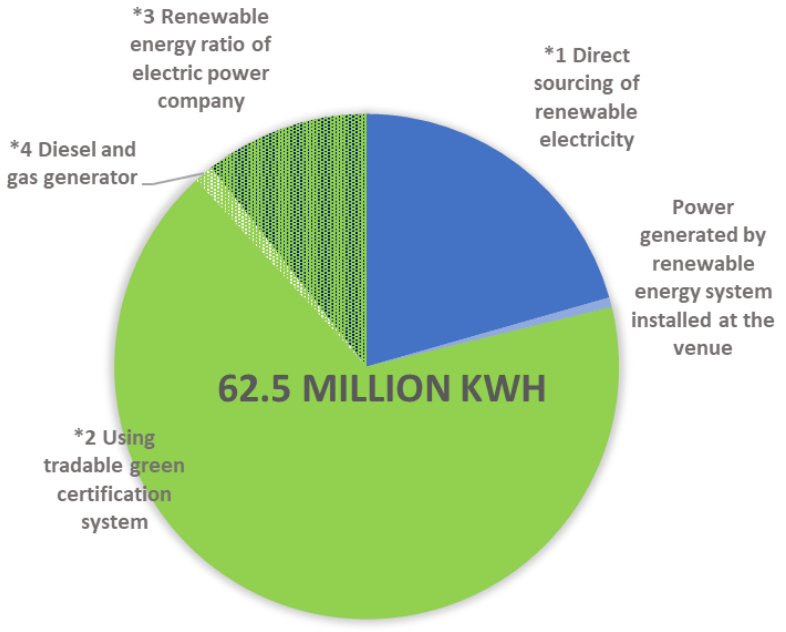
Through Tokyo cap-and-trade programme and Saitama Target Emissions Trading System, as many as 217 businesses provided certified Excess Reduction Credits, amounting to 4.38 million t-CO_2 available to offset the Games. This amount exceeds the calculated total carbon footprint of 1.96million t-CO_2 by 2.42 millionf-CO_2. This meant that the Tokyo 2020 Games had gone beyond carbon neutrality.

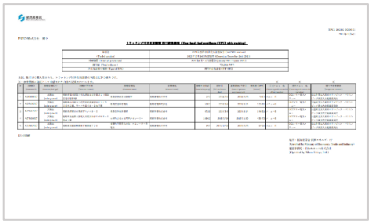
100% renewable electricity target achieved

Tokyo 2020 had set a target of 100 per cent renewable energy sources for electricity used to run the Games. We achieved this target by mainly using two methods. The first method is direct sourcing of renewable electricity — getting electricity from power utilities using renewable energy and using electricity from power generated by renewable energy facilities at the venues. For electricity we used from non-renewable energy sources, the second method is converting this amount into renewables using tradable green certification and other environmental schemes on renewable energy. In addition, 4 venues (Tokyo Aquatics Centre, Sea Forest Waterway, Kasai Canoe Slalom Centre, Musashinomori Park) changed their contracts to power utilities with higher rates of renewable energy use, which aided in transitioning greater society to use renewable energy more during and after the Games.

During the Games, all electricity at Ariake Urban Sports Park and a portion of electricity at Aomi Urban Sports Park were electricity generated from solar power facilities in Fukushima Prefecture, which has been strongly urging for the adoption of renewable energy in its recovery plan. We supported reconstruction through the use of renewable energy at the Games.

100% renewable energy for electricity used during the Games





Notice of non-fossil fuel certificate with tracking

Green certificate

Category	Electricity use (million kWh)
Direct sourcing of renewable electricity	12.9 (20.6%)
Power generated by renewable energy system installed at the venues	0.4 (0.6%)
Using tradable green certification system	49.2 (78.8%)
Total	62.5 (100%)

*1 For Sources of power in power supply agreement with ENEOS, see Update to Sustainability Pre-Games Report (*page 37*). For FIT solar power generation, the non-fossil fuel certificate with tracking was utilized.

*2 In cooperation with the host cities of Tokyo and Yokohama, we used green certificates obtained by the respective local governments. We used Yokohama City's green certificates for electricity at competition venues within Yokohama City and TMG's green certificates for electricity at all other competition venues.

*3 Estimated amount calculated from the renewable energy rates of each power utility (Tokyo Electric, Tohoku Electric, Hokkaido Electric, etc.): Approximately 6.6 million kWh (Source: Renewable energy rates and other data from the list of electricity providers that fall under Tokyo Metropolitan Government's energy and environment planning programme)

*4 We also used green certificates for in-house power generated using gas or diesel oil at some venues. Carbon offsetting were also carried out for their CO_2 emissions.

Use of hydrogen energy

Hydrogen is an energy source that does not emit CO_2 during use and is expected as one of Japan's main strengths in advancing towards its climate goals. Tokyo 2020 repeatedly explained about this new technology in detail to people in local communities to solicit their understanding. In corporation with relevant organisations and parties, we used hydrogen in various situations at the Tokyo 2020 Games, and helped in realising a hydrogen-based economy through the Games.

(1) Hydrogen produced in Fukushima

Olympic/Paralympic Village relaxation facility

By producing hydrogen using renewable energy, we can create energy that is completely free from CO_2 emissions, all the way from production to utilisation. A large-scale facility for hydrogen production using renewable energy started operating in Fukushima Prefecture in 2020. Tokyo 2020 also used the hydrogen produced at this facility.

At the Olympic/Paralympic Village, a relaxation house was set up by TMG to serve as a haven of rest equipped with massage chairs, cool misters and other amenities for athletes and team officials. The facility is powered by electricity from the hydrogen produced in Fukushima Prefecture. Electricity generated by the hydrogen produced in Fukushima Prefecture also supplied a part of the residential buildings.

Olympic cauldron at the opening ceremony
(Photo taken on July 23, 2021)

Shiomi hydrogen station

(2) Olympic and Paralympic cauldron and torch

The Olympic and Paralympic cauldron for the opening and closing ceremony installed at the Olympic Stadium was fuelled by hydrogen produced from renewable energy sources in Fukushima Prefecture. Hydrogen was also used as fuel for the cauldron installed at the Yume no Ohashi bridge located in a Tokyo waterfront area.

Also, hydrogen was partially used to fuel the Olympic torch relay. Certain segments of the Olympic Torch Relay in Fukushima, Aichi, and Tokyo used torches fuelled by hydrogen.

(3) Use of fuel cell electric vehicles (FCEVs)

There were 475 FCEVs, provided by Worldwide Olympic/Paralympic Partner Toyota, used as transportation vehicles for Games-related personnel. For the Games, new hydrogen stations were implemented in the locations in and around the city, and they were used to supply the FCEVs with hydrogen fuel. The hydrogen produced in Fukushima Prefecture was also supplied to the FCEVs for the Games.

FCEVs played a large part not only in moving Games staff but also in the competitions, for example through functioning as lead vehicles in the marathon events.

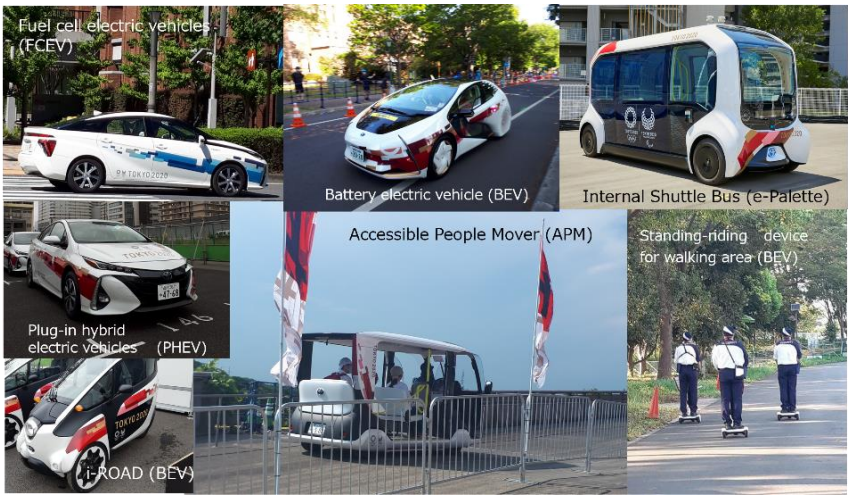
Transport with low environmental impact

We actively used low-pollution and fuel-efficient vehicles such as FCEVs and plug-in hybrid electric vehicles (PHEVs), which led to the average CO_2 emission intensity of less than 80 g-CO_2/km for passenger cars used in the Tokyo2020 Games.

(1) Vehicles used in the Games

We used 2,654 passenger cars provided by Toyota for the transportation of personnel during the Games. We decided to use low-pollution and fuel-efficient cars, such as FCEVs and PHEVs, as much as possible. Our rate of use of low-pollution and fuel-efficient vehicles for the Games was 95 per cent.

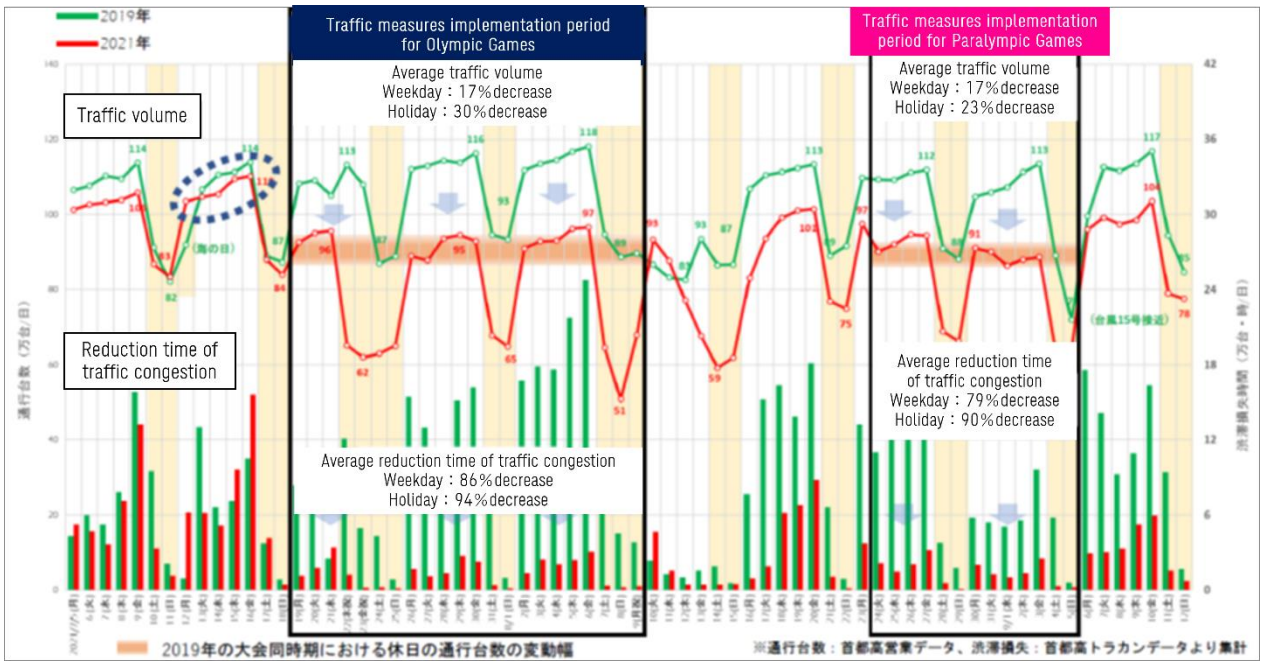
This led to an average CO_2 emission intensity for Games fleet vehicles of 80 g-CO_2/km or less, which was the best result achieved in the history of the Olympic/Paralympic Games. In addition we used electric buses which run around in the Olympic/Paralympic Village and electric vehicles for competition vehicles at road events to fulfil our goal of providing transport with a low environmental impact across various aspects of the Games.



(2) Effect of travel demand management (TDM)

For transportation, the goal of the Tokyo 2020 Games was to provide smooth and efficient transport at the Games and maintain the stability of activities in the metropolitan area. We implemented travel demand management (TDM) as one of the strategies to achieve this goal. Collaborating with businesses, and national and local governments, we called for cooperation in our initiatives to ease road congestion during the Games. The TDM initiatives reduced the overall amount of vehicular traffic, and the smooth and efficient flow of transportation at the Games also helped reduce our environmental impact.

During the Games, transport system management (TSM) and toll measures for the Metropolitan Expressway were implemented in addition to TDM. This led to an approximately 20 to 30 per cent reduction in vehicular traffic compared to 2019, and demonstrated that the traffic management plan was working appropriately.



Reduction in vehicular traffic and road congestion on the Metropolitan Expressway during the Games (Source: Meeting materials, 16th transportation liaison and coordination council)

Activities of CO_2 reduction by citizens at the Tokyo 2020 Games

Aside from carbon offsetting by credits, we collected and released data on carbon reduction activities conducted by citizens and groups, with the aim of encouraging participation from more people and promoting actions for a decarbonised society. Approximately 250,000 people[*1] participated in a total of 9 activities listed in the following table. (as of Sep, 2021)

Applicant	Action	No. of participants	Amount of reduction ($t\text{-}CO_2$) *2
Yokohama City	Go Ecology with the Tokyo 2020 Games in City of Yokohama!	Approximately 111,000 people, and 10 Company	1,900
Kumamoto Prefecture	Kumamoto BDF	Approx.86,000	159
Shinjuku City	Shinjuku's Green Curtain Project	1,501 (households) 351 (schools and other organisations)	120.3
Kodaira City	Challenge energy saving in Kodaira	40	4.6
Kodaira City	The Eco-challenge Tree	42	0.1
Hachioji City	The Energy Conservation Challenge	8,954	36.9
Nerima City	Stop Climate Change!: Join us for eco-lifestyles	40,601 19 (offices)	2.4
Oita Prefecture	Oita's Home Energy-saving Diagnosis	66	99
Ministry of the Environment	Home Energy-saving Diagnosis	2,933	3,596

*1 For convenience, the total number of participants is calculated using one person per number of households or schools. In addition, for activities spanning multiple years, the total number of participants is given.

*2 For the total amount of carbon reduction, the total amount of reduction is given for activities spanning multiple years.

Conducting a home eco-diagnosis (Oita Prefecture Global Warming Association)

Adaptation

Apart from reducing carbon emissions and offsetting, we needed to implement adaptation measures at the Tokyo 2020 Games to reduce the consequences of climate change and extreme weather, such as heat stroke. We worked on heat management measures in cooperation with TMG, GOJ and other organisations. For more details, see Section 3.3 "Natural Environment and Biodiversity" (*pages 60-63*).

Lessons and takeaways from the Games

For the Tokyo 2020 Games, we first conducted carbon footprint calculations while making their procedure manuals a few years before the delivery of the Games. Then we have monitored carbon footprints of various activities at each stage of the Games preparation while estimating the impact of changes in the Games schedules and the effects of our carbon reductions efforts. It was critical that the efforts to reduce carbon footprints had been continued over the whole life of the Games, based on the procedure manuals and referring to the calculation values.

With the cooperation of our Games partners, we were able to use a large number of low-pollution and fuel-efficient cars during the Games, including FCEVs and PHEVs, which emit less CO_2. This resulted in the lowest ever emissions intensity related to passenger car transportation of Games personnel for any Olympic and Paralympic Games. However, as a measure to control the COVID-19 pandemic, we had to limit the use of public transportation with low carbon emissions, such as rail.

Because overseas visitors use air transport, they have a significant impact on emissions, accounting for approximately 40 per cent of the expected CO_2 emissions by spectators before the decision to hold the Games without spectators. For the Tokyo 2020 Games, the number of overseas visitors turned out to be significantly low. However, we hope that more initiatives will be carried out in the aviation industryin the future: For example, using alternative energy sources such as biofuels for aviation, or initiatives that enable the visitors themselves to take some action through quantifying the CO_2 emitted by the movement of people.

Carbon offsetting for the Games was made possible by the cooperation of businesses, which are located in municipalities of the host city and provided the credits. Credits were derived from the extra carbon-reduction activities carried out by the business operators. This is the first time in the Olympic and Paralympic Games that carbon offsetting was implemented with the cooperation of local governments and numerous businesses, along with marketing rights. We hope that this will serve as a new model for offsetting events in the future.

As the world makes great strides toward decarbonisation, the introduction of carbon pricing is also starting to be discussed in Japan as well. At the Tokyo 2020 Games, we quantified and provided data on CO_2 emissions of our activities and procured goods, as well as recommended the selection of goods and methods with low carbon emissions. We hope that this will lead the way for future Games and sporting events to opt for considering CO_2 emissions as a cost, in order to further reduce emissions.

Comment from Decarbonisation Working Group Chairperson

At the beginning of 2015 summer, the name of our working group (WG) was "Low Carbon WG", but after the global transformation along with the adoption of Paris Agreement and the SDGs, it was updated to "Decarbonisation WG" in 2017 autumn. It was a great achievement to aim for and achieve zero carbon together with WG members, secretariat and the stakeholders involved in the Tokyo 2020 Games.

We were able to contribute to the legacy, from establishing the method of calculating carbon dioxide emissions, to the identification of the 12 actions, and in particular to the expansion of the use of renewable energy, with some facilities continuing to procure renewable energy.

Other remarkable outcomes were emissions reductions that surpassed Games' own emissions through the use of carbon credits, which are more environmentally sound than in previous Olympic and Paralympic Games, and collaborations with local governments and citizens' groups.

I sincerely appreciate the secretariat members' great efforts to work with internal and external stakeholders not only on decarbonisation but on sustainability in general. I myself learned a lot from the direct communication with the IOC's sustainability advisors, the design of the Olympic/Paralympic torches, and the communication with everyone including the youth. I would like to thank everyone involved in the Tokyo 2020 Games, and I hope that I can use this experience elsewhere.

FUJINO Junichi

3.2

Resource Management

Zero Wasting

3.2 Resource Management

Overview

The Olympics and Paralympics Games Tokyo 2020 had set Zero Wasting as a major goal. Through collective efforts throughout the supply chain, we all worked together with the aim of managing our resources effectively to eliminate the environmental impact caused by fully utilising resources and by avoiding deforestation and land devastation caused by resource exploitation.

With the concept of the 3Rs (Reduce, Reuse, Recycle) as our basis, we first worked on the procurement of goods for the Games using the reduce principle. To procure raw materials, we made efforts to utilise recycled resources, such as in the medal and podium projects.* After the Games, we worked on reusing and recycling items with the cooperation of reuse- and recycling-related industries, Games-related organisations and government agencies. We continued to make improvements in our efforts whenever resource-related issues or matters arose throughout and after the Games.

Due to the COVID-19 measures and the impacts of staging the Games with limited spectators, we had to make changes on the materials needed to deliver the Games. However, we persevered with our efforts to maximise the effective use of resources, as it remained an important goal.

This section presents our resource management initiatives and our performance, with a view of contributing to sustainable resource management of events in the future.

* See Section 3.5 Involvement, Cooperation and Communications (Engagement) (*page 84*).

Completion of separate targets

For resource management of the Games, we set eleven key areas and carried out initiatives in each area. The table below lists the key areas, summarises the initiatives, and their details are discussed in the following sections. Although issues arose in some areas, we were able to show results and future direction that should be taken for most of them.

Deep green: Completed

Pale green: Not achieved but mostly completed

No colour: Worked to resolve issues that arose during the Games to achieve target

Point of view	Item/ Objective	Key area	Performance
For people and society	Reduce	Reduce edible part of food waste	At the Olympic/Paralympic Village, closely linked food preparation to various Games information, such as competition schedules to reduce food loss and waste. And carried out various other food loss and waste reduction measures such as minimising number of ingredient items. When providing lunch boxes to Games personnel at competition venues, reviewed the number of orders whenever necessary to adapt to changing circumstances, such as the policy change on spectator

			numbers. However, shift schedule changes on the day of events resulted in fewer meals eaten and food loss and waste. Took additional measures to improve the situation
		Reduce packaging and containers	Reduced packaging and containers, such as by simplification of packaging and by minimising use of single-use plastics
		Reduce production of new items by utilising rentals and leases for procurement	Procured items were reused or recycled, achieving over 99% reuse and recycling rate. Approximately half of items which Tokyo2020 procured directly were procured by rental or lease.
	Reuse/ Recycle	Reuse procured items: Utilise rentals and leases, reuse or recycle items after the Games : 99% (target)	
	Recycle	Use recycled materials	Procured items that use recycled materials such as torches, uniforms and podiums
		Use recycled metal for medals of the Games	Manufactured Games all the medals using recycled metal
	Reuse/ Recycle	Reuse or recycle waste generated from operations of the Games : 65%(target)	Recycled waste during operations, including paper, plastic and food waste, achieving 62% recycling rate
		Recycle food waste	
		Reuse or recycle construction waste: 99% (target)	Worked on recycling and reducing construction waste and effectively using construction-generated soil. 99% or more achieved with some exceptions
For the environment		Use renewable resources in a sustainable manner (e.g. timber)	Completed venues development using timbers at Olympic Stadium and Ariake Gymnastics Centre and the Olympic/Paralympic Village Plaza
		Reduce waste to landfill and CO_2 emission from waste	Minimised waste landfill and CO_2 emissions derived from waste by working on effective use of resources

Initiatives on single-use plastics

In recent years, there have been growing concerns about single-use plastics and ocean plastic waste, leading to an increasing number of regulations and initiatives to reduce the use of single-use plastics globally. In Japan, the Plastic Resource Circulation Act was enacted to further encourage efforts in this direction. At the Tokyo 2020 Games, we shared the current state of single-use plastics amongst stakeholders, reduced single-use plastics and recycled the plastics we used mainly through the following efforts.

- Reduce and recycle single-use plastic containers and cutlery for the meals of athletes and Games staff (Prior to the decision to not have spectators during competition, we had also planned to reduce single-use plastic containers when providing food and beverages to spectators.)
- Replace shopping bags at licensed shops with paper bags
- Fabricate the medal podiums using recycled plastic
- Recycle the plastic material from containers and packaging discarded at the Games

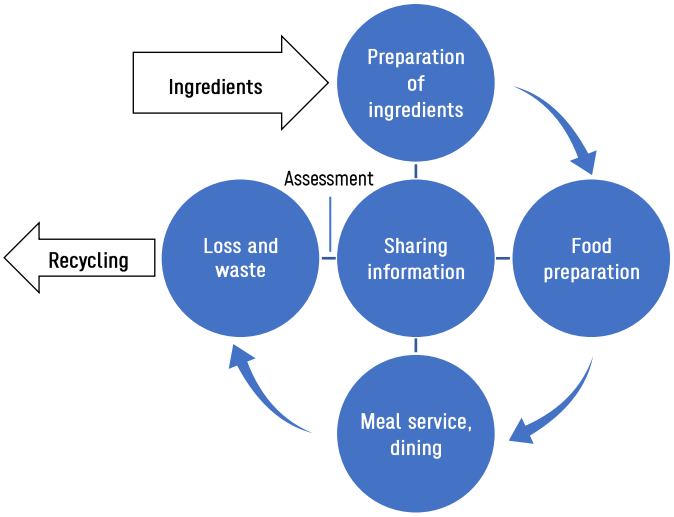
We discuss the outcome of these initiatives in this section (3.2).

Reduction in food loss and waste

The Olympic/Paralympic Village

At the Olympic/Paralympic Village, we provided food and drinks to athletes and personnel from the opening of the Village for Olympics on July 13 to the closing of the Village for Paralympics on September 8. The COVID-19 pandemic made it impossible for these people to dine outside the Village, so it was imperative that safe, healthy and satisfying meals were available at all times at the Village. To reduce food loss and waste, we partnered with a contract caterer with experience in large-scale catering and undertook initiatives starting from the planning stage.

System to reduce food loss and waste at the Olympic/Paralympic Village

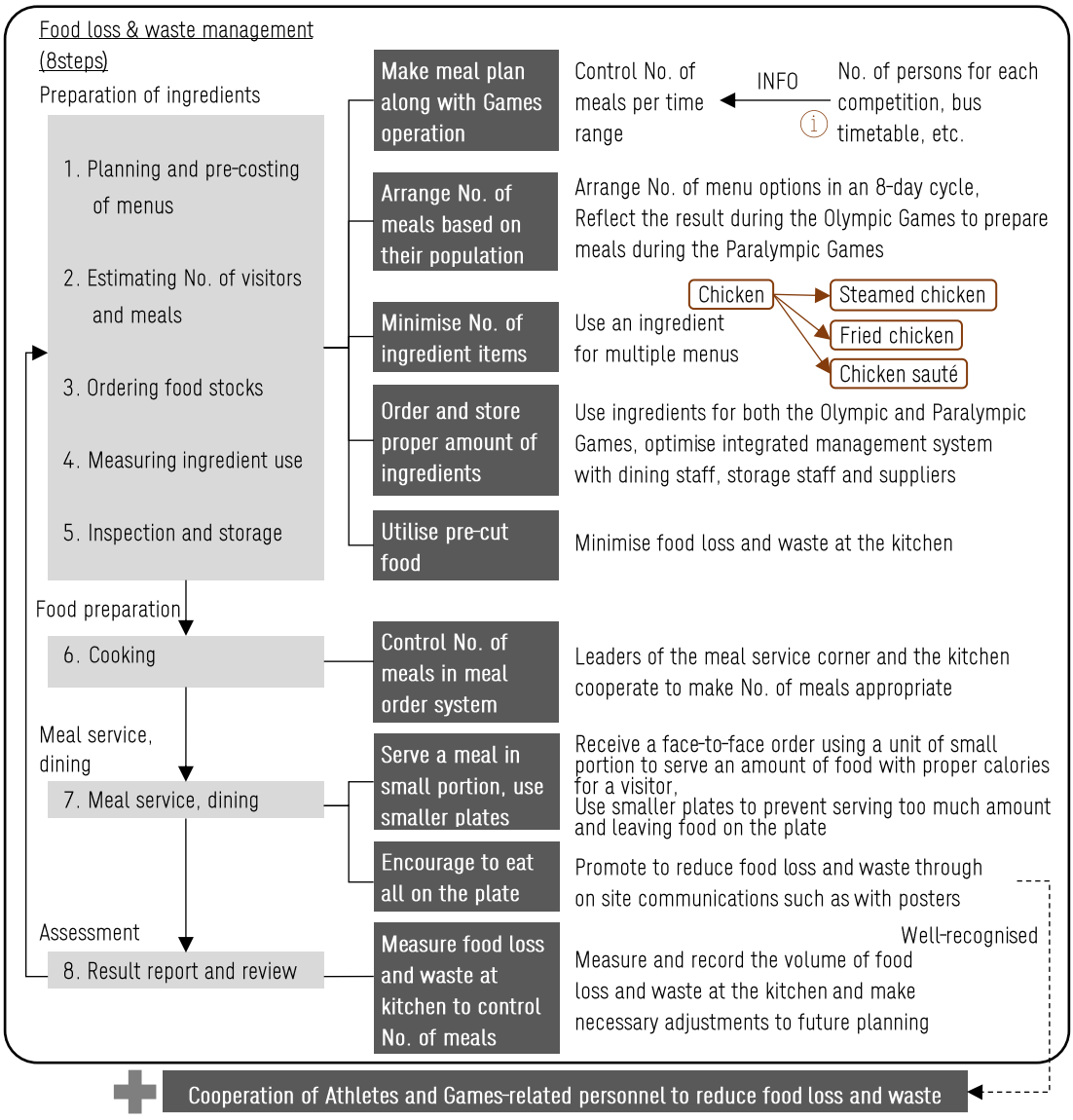


At the main dining hall of the Olympic/Paralympic Village, we provided food and beverages that account for the athletes' culture, religion and various dietary preferences. Since our priority was to provide adequate nutrition and help maintain the physical condition of all the athletes, it was

necessary to open the main dining hall 24 hours a day and offer menus containing around 700 food options in an 8-day cycle without fail. This resulted in approximately 870,000 meals being served throughout the full Games-time period, under conditions prone to food loss and waste, such as the need to change menus for morning, noon, night and midnight on a daily basis. To reduce food loss and waste under these circumstances, we took various measures that utilise ICT technology,[*1] including closely linking food preparation to various Games information such as competition schedules, assessing the popularity and quantity of each menu, minimising the number of ingredients by standardising the food ingredients we used (e.g. steamed chicken, fried chicken and chicken sauté are made from chicken of single ingredient), and controlling the number of dishes optimally through a linked operation system between the serving area and kitchen. Moreover, the kitchen staff served portioned meals to athletes instead of allowing athletes to serve themselves. We displayed the number of calories and nutritional information corresponding to the food on menu cards, to enable each athlete to decide for themselves the amount they need.

*1 ICT: Information and Communication Technology. We considered information such as the number of people per competition and bus schedules in the number of dishes to prepare to reduce waste. We utilised a system to manage the inventory of ingredients and adjust the remaining number of dishes by linking the kitchen and serving area to reduce waste.

Food loss and waste measures at the Olympic/Paralympic Village



Minimise food loss and waste by utilising information and data, and arranging meal service properly

collected the data on our performance on food loss and waste for the main dining hall, with the following results.

- Total amount of food ingredients used throughout the Games: 1,207 tonnes
- Disposed amount of edible parts after removing skin and bones from food ingredients: 175 tonnes (disposal rate: 14.5%)
- Estimated intake per person per meal: 1.12 kg
- Amount of disposed waste per person per meal: approximately 0.2 kg

Note 1) The amount disposed is the total amount of food which was not eaten after two hours following food preparation and which cannot be served for hygienic reasons (Hygiene standards are based on the Manual for Hygiene Management at Large-Scale Food Preparation Facilities specified by Japan's Ministry of Health, Labour and Welfare).

Note 2) Food that was disposed of for hygienic reasons were recycled by converting them into animal feed.

Since amount of disposed edible parts, that is in the calculation for disposed rate noted above, includes the weight of a considerable amount of water added during cooking, the calculated disposal rate is higher than the actual rate.

Evaluating our performance is quite difficult as there are no comparative cases with the same scale and conditions. For reference cases, we considered a report on a study conducted to help reduce food loss and waste at the Tokyo 2020 Games commissioned by the Ministry of Agriculture, Forestry and Fisheries.[*1] The report studied two cases of large, international sporting events in Japan that are equivalent to the 14.5 per cent disposal rate at the Olympic/Paralympic Village during the Tokyo 2020 Games. The first case, a hotel buffet during a sporting event in 2018, showed a food disposal rate before serving[*2] of around 26 per cent. The second case in 2019 showed varying disposal rates daily going from 58 per cent, to 24 per cent and 35 per cent. However, it should be noted that a simple comparison of this study and the Tokyo 2020 Games is not necessarily appropriate. While meals were served as a buffet style in the cases in this study, a certain amount of meals was provided to athletes by staffs during the Tokyo 2020 Games. Other differences include the ability to go out of the hotel, handling data on contained water, and number of samples. At the Tokyo 2020 Games, we consulted the results of this study for our food loss and waste measures, which included posting informational materials, linking food preparation with Games information, displaying menus for easy adjustment of food portions, and preparing food based on active assessment of popular menus and dishes that are regularly eaten.

As no data on food loss and waste remains from past Olympic and Paralympic Games, we hope to provide figures that can be used as a guide for future Games, by measuring the amount of food loss and waste at the Olympic/Paralympic Village during the Tokyo 2020 Games as outlined above.

Additionally, menu selection by athletes and other information initially provided by the IOC tended to differ from our actual experience in many cases. We hope that referring to our food loss and waste data and information on measures we took at the Tokyo 2020 Games will enable further consideration of food loss and waste in future Games.

*1 Reference: Report of investigation in regard to the recycling status of the food industry in 2019. This is commissioned by the Ministry of Agriculture, Forestry and Fisheries https://www.maff.go.jp/j/shokusan/recycle/syoku_loss/attach/pdf/161227_8-66.pdf

*2 Ratio of food loss and waste of before serving to the total amount of cooked food

Competition venues

At competition venues, we provided meals to staff and Games-related personnel in the Games. We took a tentative order of lunch boxes for staff about two months prior. Thereafter, we addressed the decrease in staffing numbers caused by the reduction of spectators for the Games and worked to reduce food loss and waste by making our final order three days before delivery. The number of meals we served was about 1.6 million across 43 competition venues. However, due to the fluid nature of Games delivery, we could not sufficiently reevaluate the volume of orders. Also, there were shift schedule changes amongst staff on the days of competition. These caused disparities between orders and actual demand and led to a waste of lunch boxes. As a case in point, we provided 10,000 lunch boxes for the opening ceremony of the Olympic Games but around 4,000 boxes were left unopened, resulting in a large volume of food loss and waste.[*1] Hence, we partnered with a contract caterer to improve the situation and implemented measures such as reviewing food orders in more detail, encouraging eating ordered lunch boxes without leftovers, extending serving times, promoting eating meals, and promoting fruit consumption by making venues more accommodating. As a result, we were able to improve the situation for the closing ceremony of the Olympic Games, with only 200 unopened boxes out of the 6,000 distributed.

For competition venues as a whole, we looked at the trends in food loss and waste by month. Although there were some variations across venues due to differences in scale, competition schedules and management, the total number of uneaten meals was around 190,000 during the early stages of the Games in July, which represents an overall total of 24 per cent of food uneaten. This reduced to 100,000 uneaten meals for 15 per cent uneaten in August, and around 8,000 uneaten meals for about 8 per cent uneaten in September. For the entire duration, the number of uneaten meals was around 300,000 for about 19 per cent of food uneaten. Along with the previously discussed measures, we worked on recycling the food in the unopened lunch boxes that had to be disposed of after their expiry dates by converting them into animal feed and biogas.

Additionally, for the surplus food left even after implementing our reduction measures, we cooperated with food banks and donated bread with longer expiry dates during the Paralympic Games. In total, we provided nearly 1,000 meals' worth of bread.

*1 Results in Olympic stadium which has a large number of staff
(Number of ordered meals/ uneaten meals/ percentage of uneaten meals)
<the Olympic Games>
Opening celemony :
10,000 / 4,000 / 40%
Closing celemony :
6,000 / 200 / 3%
< the Paralympic Games>
Opening celemony :
6,000 / 100 / 2%
Closing celemony :
6,500 / 350 / 5%

Performance on meal provision for Games staff[*2]

Duration (2021)	Number of ordered meals (x 1,000)	Number of uneaten meals (x 1,000)	Percentage of uneaten meals
July	810	190	24
August	690	100	15
September	100	8	8
Total for whole duration	1,600	300	19

*2 Results during the Olympic/Paralympic Games
(Number of ordered meals/ uneaten meals/ percentage of uneaten meals)
<During the Olympic Games>
23 Jul. to 8 Aug. 2021
810k / 170k / 21%
<During the Paralympic Games>
24 Aug. to 8 Sep. 2021
290k / 30k / 11%

Reduction of packaging materials

We worked to reduce packaging and container waste by limiting their use and the use of disposable products. We pursued sustainable procurement through simple packaging and containers, considering ease of recycling and environmental impact of disposal in line with guidelines such as the Tokyo Metropolitan Government's Green Purchasing Guidelines.*1

*1 https://www.kankyo.metro.tokyo.lg.jp/policy_others/tokyo_green/tokyo_green.html

Initiatives on single-use plastics

At the main dining hall in the Olympic/Paralympic Village, we used paper plates instead of disposable plastic plates to provide meals to athletes which then, where possible, recycled into toilet paper. In the casual dining areas, we reused tableware made of recycled plastic material to serve Japanese food. Metallic cutlery was also used.

Tableware made of recycled plastic material to serve Japanese food

We considered various options for staff lunch box containers, including those made of paper. After conducting operational studies on delivery and food safety, we decided to use recyclable plastic containers. A merit of this type of container is that it can be collected in a clean state by peeling off its inner film after the meal. Volunteers and staff worked on waste sorting campaigns at each venue, which led to the proper collection of these containers for material recycling.

Recyclable lunch box container

Official Tokyo 2020 shops used recyclable paper bags to reduce plastic bags use when required.

To collect plastics at ocean-based competition venues, three ocean plastic waste collecting devices called Seabins were deployed at Enoshima Yacht Harbour in Kanagawa Prefecture.*2

We also carried out the Recycled Plastic Podium Project to make medal podiums using recycled plastic and smaller amounts of marine plastic to symbolise our commitment to addressing plastic pollution.*3

Lunch box containers with films peeled off, sorted and stacked in a clean state

*2 See *page 149* of the Sustainability Pre-Games Report.

*3 See Section 3.5 Involvement, Cooperation and Communications (Engagement) (*page 84*).

Reuse and recycling of procured items and goods

We worked on achieving our set target of 99% for the reuse or recycle of procured items and goods. Whenever possible, we used rentals and leases when procuring goods and services. For purchased items, we pursued avenues for reuse or recycling, such as by reselling or by identifying people/entities willing to accept them post-Games, with the cooperation of the national government, local governments and related organisations.

(1) Reuse and recycling rate of covered items, calculation and implementation

To achieve a 99 per cent rate of reusing or recycling procured items, we created the Reuse and Recycling Guidelines (Procedure)*1 to establish the method for calculating the percentage.

To calculate the reuse and recycling rate, we used data from the asset tracking system (ATS), which managed the entire process from procuring items until their disposal, as well as from separate ledgers managed by each Tokyo 2020 functional area (FA).

The result showed that we achieved our target with a reuse and recycling rate of 99.97 per cent. The remaining 0.03 percent fell under wooden elements that were difficult to be recycled, and disposed of after energy (heat) recovery.

*1 Refer to *page 73* of the Pre-Games Report for details of Reuse and Recycling Guidelines (Procedure).

a. Calculating reuse and recycling rate

In the formula, the denominator is the total weight of covered items and goods whilst the numerator is the weight of items that were reused or recycled. Note that for recycling, the weight of items brought to recycling facilities was used.

[Calculation method for the reuse and recycling rate of procured items]

$$\left(\frac{\text{Weight of procured items that were reused or recycled}}{\text{Weight of procured items}} \right)$$

Note: Calculate based on weight at the time of procurement of the items.
Rental and leased items are also included as reused items.

b. Reuse and recycling results

The breakdown of covered items and goods specified in the Post-Games Reuse and Recycling Guidelines (Procedure) is as follows. For reused and recycled items, 93.93 per cent were reused and 6.04 per cent were recycled. The high rate of reuse was due to our utilisation of rentals and leases, as well as our initiatives to transfer sporting and other equipment to local governments and bulk transfer IT equipment. (See *page 140* of the Appendix for details)

Reuse and recycling results of procured items and goods

[Unit: tonnes]

Area		Total weight of procured items	Total weight of procured items that were reused or recycled						Total weight of procured items that were used for energy recovery	
			Reused + Recycled		Reused		Recycled			
			Weight	%	Weight	%	Weight	%	Weight	%
Items procured through lease, rental or purchase	Fixtures and furniture	3,135	3,135	100.00	3,131	99.87	4	0.12	0	-
	Consumer appliances (refrigerators, washing machines, etc.)	768	768	100.00	767	99.99	0.1	0.01	0	-
	Electronic equipment	435	435	100.00	432	99.24	3	0.76	0	-
	Medical equipment	131	131	100.00	131	100.00	0	-	0	-
	Sporting equipment	6,119	6,114	99.92	5,983	97.78	131	2.15	5	0.08
	Other venue equipment (UPS, barricades, etc.)	2,359	2,358	99.98	2,084	88.34	275	11.65	0.4	0.02
	Subtotal	12,946	12,941	99.96	12,528	96.77	413	3.19	5	0.04
Items procured during construction work	Air conditioning, water heater, modular bathrooms, modular housing, prefabricated structures, tents, containers, modular toilets	33,427	33,427	100.00	31,220	93.40	2,207	6.60	0	-
Other items that require special attention for reusing or recycling	Venue decorations	200	192	96.00	0.4	0.19	192	95.81	8	4.00
Total		46,574	46,560	**99.97**	43,748	93.93	2,812	6.04	13	0.03

* Excludes some consumables, material goods, construction materials and items whose quantities are difficult to determine

* Collected from information by the date of issuing this report

* No procured items regarding this table are landfilled

(2) Results of transfer of sporting equipment using toto lottery subsidy

For competition equipment acquired using Sports Promotion Lottery subsidies*1, we openly solicited local governments and other organisations interested in using this equipment, so that they can be effectively utilised to promote sports at the community level even after the Games. We will provide 76 sets of competition equipment (see table below for details) to 34 selected local governments that have been selected.

*1The Sports Promotion Lottery subsidy is provided by the Japan Sport Council by using profits allocated from the Sports Promotion Lottery sales revenue. It subsidises projects that aim at promoting sports conducted by Japan's local governments or sports organisations..

List of transferees for competition equipment acquired using Sports Promotion Lottery subsidies

Sport	Item	Number of items	Planned local government transferee
Equestrian	Horse ambulance	1	Aichi Prefecture
Handball	Goal set (net, post, push cart, etc.)	8	Local governments in Tokyo, Aichi, Chiba and Hokkaido prefectures
Weightlifting	Competition stage, etc.	1	Tokushima Prefecture
Volleyball	Referee communication system	1	Local governments in Tokyo
Rowing/Canoe	Referee catamaran, etc.	1	Local governments in Kyoto Prefecture
Powerlifting	Barbell set (competition set, bench, rack, etc.)	38	Local governments in Gunma, Hokkaido, Tokyo, Yamanashi, Nara, Chiba, Kumamoto, and Gifu prefectures
Sitting Volleyball	Court flooring, rack	4	Local governments in Tokyo, Hokkaido, and Aichi prefectures
Boccia	Court flooring, storage cart	16	Local governments in Tokyo, Chiba, Yamagata, Kanagawa, Tochigi, and Hokkaido prefectures
Football	Lawn mower	6	Local governments in Hokkaido, Ibaraki Prefecture, Kanagawa
Number of items transferred		76	

(3) Results of arrangements of local governments in Tokyo by TMG

Some of the procured items we purchased were funded in part by TMG and GOJ. Therefore, to use public funds more effectively, we conducted inquiries on intent on reusing items to TMG and local governments, with the aim of transferring ownership free of charge for official government use, public use or charitable purposes, in addition to selling to the private sector. From October 2019 to November 2021, we carried out a total of nine inquiries on intent for reusable items post-Games targeting TMG and local governments, and handed over a total of around 5,600 items.

Results of arrangements with local governments in Tokyo by TMG [Unit : number]

Items	Transferred number
Fixtures, consumer appliances	600
Electronic equipment (PCs, printers, security cameras, etc.)	2,900
Other items in venues	2,100
Total	5,600

(4) Results of bulk transfer of IT equipment

From among our procured items, computers, security cameras and other IT equipment are expected to be sold. Since a wide range of IT equipment was used across all competition venues, we consolidated delivery locations once, and carried out bulk sale and transfer of these items efficiently.

(5) Results of rental and lease procurement

We used rentals and leases whenever possible to procure goods and services. As a result, rentals and leases accounted for 48.6 per cent of our procured items.

Rental and lease results

[Unit: weight in tonnes, %]

Items		Total weight of procured items	Total weight of procured items that were rented or leased	Percentage
Chairs		757	665	87.7
Desks		901	647	71.8
Furniture and storage equipment		1,476	967	65.5
Consumer appliances	Recyclable appliances	722	707	97.9
	Other appliances	45	33	73.0
Electronic equipment	Computers and computer accessories	50	5	9.3
	Other electronic devices (communication devices, database servers, etc.)	385	183	47.6
Medical equipment		131	131	99.8
Sporting equipment		6,119	1,904	31.1
Other venue equipment		2,359	1,052	44.6
Total		12,946	6,294	48.6

* Does not include items procured during construction work

General furniture, fixtures and equipment (FF&E) used at competition venues in the Games were procured under bulk lease contracts. Through proper management of layout and quantity in cooperation with suppliers, as well as thorough implementation of the 3Rs, there was almost no loss or damage.

(6) Reuse case on venue

Whenever possible, we also used rentals or leases to procure items to furnish the venues. We secured post-Games destinations for stadium lighting and emergency equipment through arrangements with local governments in Tokyo via TMG.

a. Stadium lightings installations

We transferred some of the lighting equipment installed at Oi Hockey Stadium and Ariake Tennis Park to TMG.

Oi Hockey stadium (Games time)

Lightning fixtures
(Source: Iwasaki Electric Co., Ltd. website)

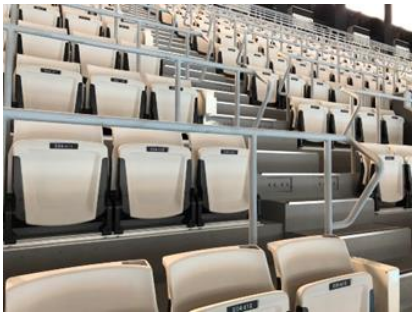
b. Fire extinguishers and firefighting equipment

We transferred fire extinguishers, power pumps and other firefighting equipment installed at competition venues to TMG and local governments in Tokyo.

Transferred fire extinguishers (left) and power pump (right)

c. Equipment used at Tokyo Aquatics Centre

At the Tokyo Aquatics Center, TMG will renovate the spectator seats from 15,000 to 5,000 after the Games. TMG is working to transfer the spectator seats to be removed to local governments in Tokyo.



Spectator seats at Tokyo Aquatics Centre

d. Equipment used at the Olympic/Paralympic Village

The hot water supply equipment, toilets, and building materials used in the accommodation buildings, Village Plaza and the main dining hall in the Olympic/Paralympic Village will be transferred to Tokyo and local governments in Tokyo.

(C) TMG Office for Housing Policy

The hot water supply equipment and building materials which will be utilised

(7) Utilising consumables

Although we worked to procure a minimum of consumables for the Games, there was however a surplus consumables caused by the decision to limit spectators.

For medical consumables, some items such as masks were discarded due to restrictions on handover period of facilities and storage locations during dismantlement of venues after the Olympic Games. During the Paralympic Games however, we were able to thoroughly utilise medical consumables across venues, and then transfer remaining ones to TMG etc. free of charge after the Games.

For COVID-19-related items such as alcohol-based disinfectants, we worked to use consumables more efficiently by modifying contracts, effectively using them across venues, and transferring them to local governments and charitable organisations. For other consumables that still remained, we collected them from the venues, put them in temporary storage, and sold or transferred them to local governments. We were able to effectively utilise about 60,000 units of alcohol-based disinfectant and 30,000 pieces of disposable gloves.

Wooden wall for the climbing competition

(8) Recycling cases

At the sailing competitions held at the venue in Enoshima, wooden platforms were required to measure boats. At Aomi Urban Sports Park, wooden boards were used for the sport climbing competitions. The wooden material used for this were crushed, moulded and recycled into wooden boards.

For Look of the Games decorations, (Tokyo 2020 decorations at the venues and in specific locations in Tokyo) waste polyester was recycled into roof insulation material, other plastic materials were chemically recycled, and metal including steel and concrete were recycled as raw materials.

We needed to use products made of polyvinyl chloride (PVC) to ensure durability for some items such as stickers for outdoor use and competition equipment. Although PVC products are generally difficult to recycle, we recycled them as raw materials for industrial products such as ammonia and carbon dioxide gas through chemical recycling.

Wooden board made from recycled wood waste as raw material and used for housing

Use of recycled materials

We used recycled materials for torches, uniforms and podiums. We were able to collect materials through the participation and cooperation of most citizens.

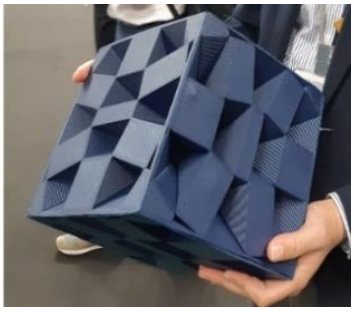
Major Games-related items using recycled materials

Items	Summary of recycled materials
The Olympic and Paralympic torches	A part of the materials used in making the torches is recycled aluminium that was originally used in the construction of prefabricated housing units in the aftermath of the 2011 Tohoku Earthquake and tsunami.
Official torchbearer uniforms for the Tokyo 2020 Olympic Torch Relay	With the cooperation of Coca-Cola (Japan), official torchbearer uniforms for the Tokyo 2020 Olympic Torch Relay are made from recycled plastic bottles collected by the company.
Uniforms for the Tokyo 2020 Games	Uniforms for the Tokyo 2020 Games were developed with three concepts in mind: comfort in hot weather, sustainability and diversity, to make sure that everyone wearing them can comfortably perform their roles regardless of their age, gender or nationality. The uniforms contain a considerable amount of recycled polyester and plant-based materials.
Podiums for the Tokyo 2020 Games	The plastic parts of podiums were all made from used / post-consumer plastic such as detergent bottles collected by the Recycled Plastic Podium Project that was implemented in collaboration with P&G.*1 Aluminum wastes that were used for temporary housing provided in the regions affected by the 2011 Tohoku Earthquake and tsunami were recycled as materials to create the Olympic and Paralympic symbols of five rings and three agitos.

Torch and torchbearer uniform using recycled materials

*1 Refer to *page 61* of the Update report for the outcome of the Recycled Plastic Podium Project.

Podium made from recycled plastic



Podium parts fabricated with a 3D printer using recycled plastic

*2 Refer to *page 151* of the Pre-Games Report for details of the Tokyo 2020 Medal Project

Medal made with recycled metal

Use of recycled metals in medals

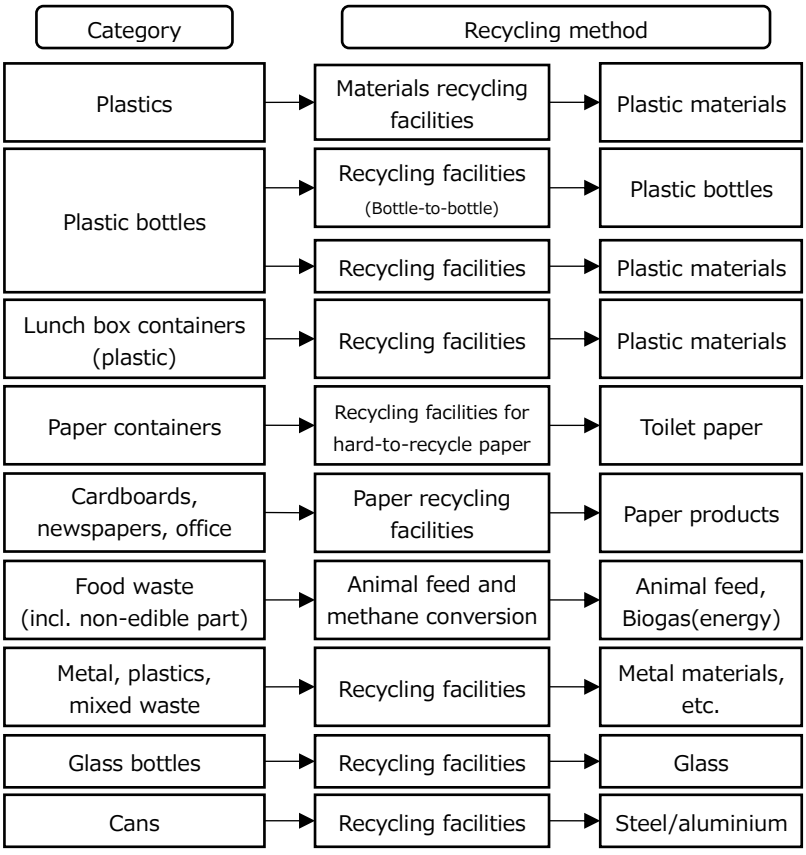
We carried out the Tokyo 2020 Medal Project to produce the medals for the Games.*2 A first of its kind in the history of the Olympic and Paralympic Games, the project collected post-consumer mobile phones and other consumer electronics from all over Japan to produce medals made from the metals recovered from these electronic devices.

Reuse and recycling of waste generated during the Games

For waste generated during the Games, we carried out initiatives to achieve our set target of 65 per cent reuse and recycling rate.

We created a disposal system that prioritised recycling based on the type of waste generated such as plastic bottles and paper containers, during the Games. In particular, in order to boost the circular economy, we worked on recycling and other initiatives that have the potential to be more widely adopted, such as recycling plastic containers and packaging into recycled plastic pellets, lunch box containers into new container raw materials, plastic bottles into new plastic bottles, and paper plates into toilet paper. We also carried out thermal recycling for waste types that are currently difficult to recycle. In managing waste information, we utilised an electronic manifest system that is effective in improving work efficiency and ensuring traceability.

Recycling methods for the main categories of waste during the Games



Thorough waste sorting

At the Games, we carried out waste sorting according to the recycling methods given above. Aiming to ensure that each waste was thrown into the proper waste bins, the number of types of waste was relatively large for a sport event. For Games-related personnel, we worked to increase the recycling rate by conducting information drives using e-learning and guides for various stakeholders before the Games as well as during the Games at venues, in order to raise awareness of the importance of sorting waste for recycling. We also encouraged waste sorting by putting pictograms and sorting instructions near the waste bins.

A waste sorting drive at the staff dining hall of a venue

Waste sorting drive at the main dining hall of Olympic/Paralympic Village

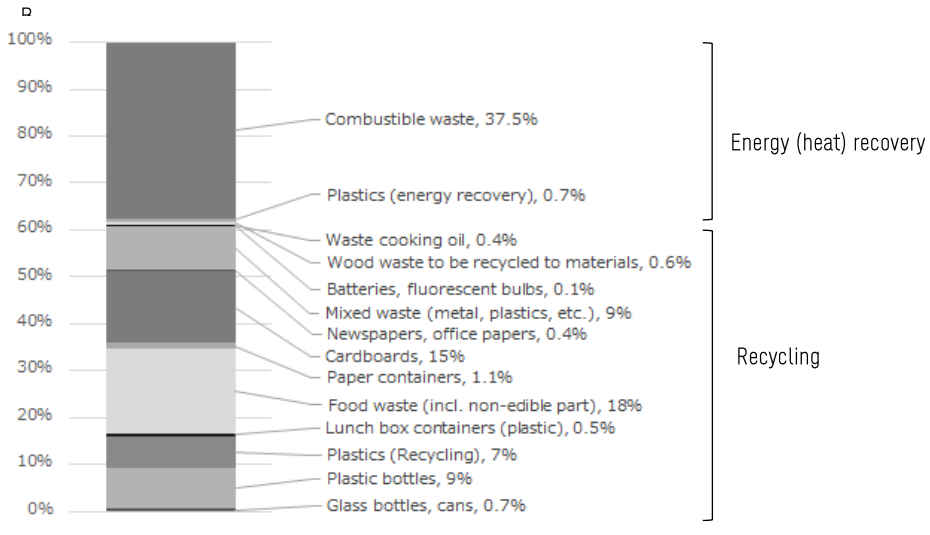
(1) Overview of waste generated from Games-time operations

Amount of waste generated and recycling rate

The total amount of waste generated during the Games was 2,900 tonnes. This was a considerable reduction from the estimated amount of approximately 6,900 tonnes, which had been previously calculated based on the assumption that the Games would be conducted with spectators. The recycling rate was 62 per cent, which was slightly below our target of 65%. Since the majority of venues held competitions with almost no spectators because of the COVID-19 pandemic, the amount and composition of waste generated at the Games were different from what was put forward in the Tokyo 2020 Sustainability Plan (Version 2)*1. Wastes from plastic bottles, cans, paper containers, plastic containers and combustible waste went down because spectator concessions were not operational. However, cleaning items necessary during the pandemic such as disinfectants and wipes, which were disposed of as combustible waste, increased. These changes affected our recycling rates. (See *page 141* of the Appendix for details)

For reference, the recycling rate of industrial waste in Japan as a whole is about 53 per cent (based on FY2019 data*2, Ministry of the Environment; recycling into refuse paper and plastic fuel (RPF) is included whilst incineration is not). However, it should be noted that the conditions do not exactly match those of the Games.

Amount of waste generated at Games-time and recycling rate



Total : 2,900 tonnes

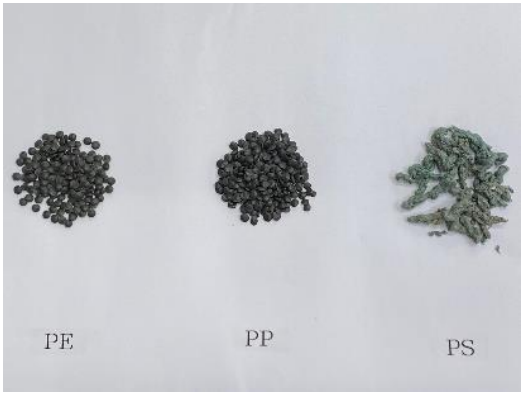
*1 https://www.tokyo2020.jp/ja/games/sustainability/sus-plan/index.html

*2 https://www.env.go.jp/recycle/R1%E7%94%A3%E5%BB%83%E6%8E%92%E5%87%BA%E3%83%BB%E5%87%A6%E7%90%86%E7%8A%B6%E6%B3%81%E8%AA%BF%E6%9F%BB%E5%A0%B1%E5%91%8A%E6%9B%B8%EF%BC%88%E6%A6%82%E8%A6%81%E7%89%88%EF%BC%89.pdf

(2) Plastic waste

For plastic waste generated at venues in Tokyo, we recycled them into plastic pellets (polyethylene, polypropylene, and polystyrene). Plastic wastes is often used for thermal recycling, but we worked on a more advanced way of recycling the plastic from containers and packaging to transform them into plastic material. At events like the Games, the challenge is to wash and dispose of plastic wastes (that has been used for packaging food and has organic matter on it), similar to the way household plastic wastes are treated.

Sorted plastic waste



Pellets recycled from the plastic waste of the Games

(3) Plastic bottles

We conducted bottle-to-bottle recycling, in which the empty plastic bottles generated were sorted, collected and then recycled into new plastic bottles. The collected bottles were shredded into small flakes. Underwater buoyancy was then used to separate the materials. After turning them back into material pellets, they were transformed into plastic bottles.

Resin (left) and preform (right) manufactured through the bottle-to-bottle recycling process

(4) Paper waste

We initially envisaged using paper containers to a maximum extent for Gamest-time food and beverages. We used paper containers to serve meals at the Olympic/Paralympic Village. However, soiled paper containers had so far been difficult to recycle. We were able to recycle them as toilet paper by using technologies for removing foreign matter, washing and treating wastewater.

Paper container at the main dining hall of Olympic/Paralympic Village

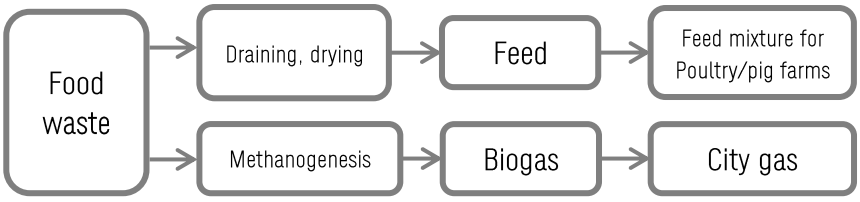
Toilet paper made from recycled paper containers at the Games

Recycling of food waste

Collecting food waste

Whilst we worked to reduce food waste, we also worked to recycle the food waste generated from surplus food by turning it into animal feed or biogas.

At the venues, the Games-related personnel worked on sorting food waste. The collected food waste was transported to plants for recycling into animal feed or biogas. The feed was used as an ingredient in feed mixtures for poultry and pig farming, whilst the biogas was used as city gas. (Details are given in the Appendix, Reuse and recycling of Operational Waste (*page 141*))



Reuse and recycling of construction waste

At new venues, we actively carried out recycling in order to achieve our targets: 99 per cent or higher construction waste recycling and reduction rate, and 99 per cent or higher effective utilisation rate of construction-generated soil. At the Olympic Stadium, the effective utilisation rate of construction-generated soil was about 85 per cent because the transport and delivery times could not be coordinated with the reuse destination, although we did successfully reach our target for the construction waste recycling and reduction rate at 100 per cent. For other existing venues maintained by TMG, the construction waste recycling and reduction rate was 99.6 per cent. The effective utilisation rate of construction-generated soil was 99.9 per cent.*1

*1 Refer to Section 3.7 for detail

Use of sustainable resources — Timber

We used Japanese timber as part of our sustainable venue construction objectives, including the Olympic/Paralympic Village Plaza, Olympic Stadium and Ariake Gymnastics Centre. In addition, we conducted a project to construct the Village Plaza called Operation BATON (Building Athletes' village with Timber Of the Nation).*2

At the opening ceremony of the Olympic Games, we used the wood from forest thinning and of trees grown from seeds brought in during the 1964 Tokyo Games to represent the five rings. We tended the trees in the interim between the two Games and used this legacy of the previous Games with care for the current Games.

*2 Refer to *page 205* of the Pre-Games Report for the result of the Operation BATON project.

Reduction of waste and environmental impact

To reduce environmental impact, we worked on the reuse and recycling of items we used at the Games. Waste that could not be recycled due to some properties of the items were disposed of after energy (heat) recovery. Around 1,100 tonnes of waste was treated in this way and around 1,200 tonnes of CO_2 was emitted.*3 To dispose of lead-contaminated soil generated when restoring a venue to their original state, we performed solidification treatment in order not to affect the environment on less than 0.5 tonnes of soil in all.

*3 Reference for the calculation of CO_2 emissions
"Environmental Impact Assessment Report - Edogawa Incineration Plant Reconstruction Project - " (2019)
"List of calculation methods and emission factors in the calculation / reporting / publication system"

Lessons and takeaways from the Games

Sustainability concerns are sometimes considered as conflicting with other requirements such as cost, safety and health. Therefore, it is important to include sustainability as early as possible, into planning and design stages, prior to procurement stages, and to check for sustainability at each stage of the process instead of attempting to add sustainability when other constraints and considerations have been determined. At the same time, it is essential for everyone to have a sense of responsibility for sustainability at every level, from each person working at the frontline of the Games to each department responsible for planning, preparations and operations. At Tokyo 2020 Games, we conducted discussions and presented our sustainability approach from the very early stages (of Games planning). However, looking back on issues that arose pertaining to Games resource management, we believe that there is still a lot of room for improvement starting from the planning stage.

During the Games, there were several resource management issues. The resources are affected by the circumstances and scale of the Games. Under the circumstances of the Tokyo 2020 Games, in which there was a postponement and reductions in the number of spectators and Games staff, from our experience we believe that providing more flexibility around procurement between suppliers and the organising committee was important to avoid waste and optimise resources in line with the 3Rs concept.

[Reducing food loss and waste]

Whilst reliably providing athletes and staff meals that were safe, healthy and satisfying and responded to their demands, the number of people we needed to serve was never constant — continually rising, peaking and ebbing — over the duration of the Games. We regularly referred to and used information obtained during the operation phase to constantly make improvements in our operations within a short period of time. Lunch boxes served to Games personnel at competition venues were fewer than originally planned due to changing circumstances, and the daily shift changes which led to waste. Although we worked to improve the situation throughout the Games-time period, we are convinced of the importance of studying more ways to create a better system. One that can manage the conflicting demands for a reliable catering service and for reducing food loss and waste emanating from meals with short expiry dates, whilst being able to take into account the possibility of sudden and unexpected changes to planning. We hope that our initiatives and performance measures for the Tokyo 2020 Games will serve as a reference for future Games and events.

[Post-Games reuse of procured items]

Many of the competition venues were existing venues that were rented for the period of the Games by the Tokyo 2020 Organising Committee. This meant that once the Games concluded, we needed to very quickly remove all Games-related infrastructure from the venues within the allocated time-frames. Although we prioritised rentals and leasing for procurement and worked to arrange reuse destination of items before the Games, arranging for all destinations and completely eliminating surplus of consumables before the start of the Games were not easy tasks. Skilfully balancing preparations for the Games whilst also finalising post-Games operations can be a major issue for

events of this scale. Planning for such situations and securing storage spaces in advance, which can also be used post-Games, will be effective in carrying out reuse initiatives in future sport events.

To ensure post-Games reuse destinations, we also sold items to reuse companies. The concept of reuse has lately been gaining ground among consumers in Tokyo and Japan. However, because the market for business and office reuse has not grown as well as that for consumers, even items in mint condition did not have high market value in many cases. Going forward, we feel that initiatives to develop the reuse market, and at the same time to expand systems for accessing direct users, are needed. We also experienced difficulties first-hand from the fact that even when we attempted to reuse products in a short period of time, they could not be effectively utilised unless there is an equivalent demand for them at the same time. For large-scale competitions, drawing up an action plan for reusing items post-competition is of vital importance because It is a very time-consuming task though it needs to be completed.

[Sorting and recycling of waste]

For waste management, Japanese laws and regulations set strict rules with respect to waste disposal. In Japan, separate contracts are required for the collection and transportation and for disposal. Moreover, licensed operators have to be considered for each item and each municipality. Individual businesses in the industry are not large in size, and recycling methods differ for each item. This meant that outsourcing all aspects to a single operator was not possible at the scale of the Olympic and Paralympic Games, and a large number of contracts was needed. To achieve Tokyo 2020's high target rate of 65 per cent for reusing or recycling waste, it was essential to work backwards from calculating recycling rates to set categories for sorting waste and to ensure quality of the sorted waste. However, there was limited time for separating trash in the back of house areas of the venues because competitions were held successively for days on the same competition venues. If waste is not separated properly then the waste stream it goes into can be contaminated, resulting in all waste in that bin not being able to be recycled. This made sorting at the point in time when each person disposes of the waste in waste bins of utmost importance. Although we encountered some difficulties with compliance for people who have never been required to perform such detailed sorting in their normal daily lives, improved sorting and recycling of waste was brought on by the fact that volunteers and other Games staff actively campaigned and called out for waste sorting in resourceful ways to suit each venue, as well as on the combined efforts of every waste operator towards recycling. On the other hand, the composition of generated waste changed because of the limited number of spectators who tend to consume recyclables such as plastic bottles. Moreover, items cleaning articles required because of the pandemic such as disinfectants and wipes, and which were disposed of as combustible waste, increased. All these have likely affected the recycling rate.

To encourage spectators to correctly sort theire waste, we had planned on placing "waste separation guides" (staffs) near waste bins to guide visitors on separating their waste, in partnership with people experienced in these kinds of activities and in collaboration with TMG. However, this initiative did not materialise since it was considered unnecessary because of the limited spectator numbers. As this kind of initiative had already been undertaken at many large events in Japan, we look forward to such actions becoming a key part of sustainable event management in the future.

[Waste recycling method]

For recycling waste, we put material recycling first. We engaged in various ways to recycle waste into raw materials; plastic waste was recycled as plastic, soiled paper containers that were typically incinerated was recycled as toilet paper, polyester fibres were recycled as heat insulating material, wood waste was recycled into chipboards for housing, and waste polyvinyl chloride (PVC) products that were difficult to recycle were recycled as raw materials through chemical recycling. These ways of recycling have only just begun in Japan, particularly for events where huge amounts of waste are generated simultaneously. Even with the commitment to recycle, there are at present only few business operators in Japan with the necessary technology. To establish these advanced recycling methods throughout society, we need the waste generators to take more serious actions, and at the same time we need to further expand recycling technologies going forward.

For plastics in particular, the "Plastic Resource Circulation Act" will come into effect in Japan in April 2022, and concerns have been growing as the momentum towards a circular economy picks up. At the Tokyo 2020 Games, we worked on material recycling for plastic waste and even though the technology for recycling them had already been available, there were very few facilities that could accept them, which meant we had to give up in a number of cases. For material recycling, making sure that the waste is composed of only one material and is free of dirt serves to improve the yield (productivity) and quality of recycled materials. To improve them, we look forward to further studies and innovations on this area, although sports competitions and other events may have restrictions for installing equipment. In terms of materials, although polyethylene terephthalate (PET), polyethylene, polypropylene, polyester and some PVC were accepted by the recycling facilities, we felt that the infrastructure for recycling plastic was inadequate. Moreover, although we had considered utilising bioplastics and advanced materials, there were times when we had to give up on their use because we could not secure their recycling. As long as they are not accepted in the limited recycling facilities currently available in Japan, these plastics had to be removed as foreign matter or included in items planned for incineration. Going forward, we hope that recycling systems for diverse materials will be established and that the circular economy grows further through the development of the recycling industry.

[Involvement and cooperation]

Resource management is a field where people can get a sense of what sustainability means, because it is easy to understand what one has done and is easily accessible to anyone. On the other hand, large-scale, high-volume recycling can only be achieved through the accumulation of an immense number of small efforts from many people. At the Tokyo 2020 Games, numerous people including city residents participated in various projects such as the Tokyo 2020 Medal Project and the Recycled Plastic Podium Project. These projects were made possible through the collaboration of TMG and other government bodies, as well as Games partners and other stakeholders. We believe that the participation and collaboration of many people helps instill greater awareness of sustainability issues in wider society. We also believe that publicly showing concrete initiatives that involves the participation of numerous people plays a big role in providing inspiration for sporting and other events in the future.

[Utilising recycled materials]
When procuring symbolic elements of the Games, such as medals, podiums, torches and uniforms, we decided to use recycled materials in order to raise awareness on the importance of recycling and to highlight the value on materials. On the other hand, whilst we assumed that some recycled materials have been used in many other items as well, we realised once more the difficulty of obtaining our performance for recycled materials in detail. We believe that making such data available is important in spreading such initiatives and creating a mechanism for efficiently assessing this remains as a challenge for the future.

Comment from Resource Management Working Group Chairperson

For legacy for the sustainable future

The Resource Management working group has worked on various initiatives based on our belief that sustainability-focused operations can contribute as a legacy to the transformation of the socio-economic system for the future.

Our working group organised by external experts and related organisations set "Zero Wasting" as a major goal, and established 10 targets, considering global trend toward circular economy. We had many tours and study sessions on advanced cases, considered proposals by NGOs, and set up high numerical targets that exceed existing initiatives.

To meet committee members' request on enhanced management system to comply with various laws and regulations on resource recycling and proper disposal while taking on new challenges, Tokyo 2020 earnestly worked to build such management system, and I sincerely appreciate their efforts.

Whilst most ambitious challenges have been successful, however, there were also challenges that needed efforts to solve problems in unexpected situations, and we hope that all of our experience will be useful as a legacy for the next generation.

Main numerical targets were: (1) Medals made from 100-per-cent recycled metal; (2) 99-per-cent reuse and recycling of procured items; and (3) 65-per-cent recycling of waste generated during the Games.

We carried out the Tokyo 2020 Medal Project in collaboration with mobile phone businesses, local governments, and recycling companies to collect post-consumer electric appliances. As a symbol of minimising natural resources use and aiming to realise a circular economy, the project created a momentum for global circular economy.

In the initiative for 99-per-cent reuse and recycling of procured items, Tokyo 2020 achieved 99.97 per cent by thoroughly utilising rental and lease, which has a large positive impact on future business practices.

The initiative for 65-per-cent recycling of waste generated during the Games resulted in 62 per cent. The amount of plastic bottles, which was planned to be recycled to new bottles, decreased significantly due to holding most events with limited spectators, and the amount of waste incinerated and used for energy (heat) recovery increased due to COVID-19 measures. Under such circumstances, the result could be regarded as sufficient.

Other achievements which can serve as a reference for future initiatives include reducing one-way plastics like plastic shopping bags, and recycling paper plates and cups from the Olympic/Paralympic Village into toilet paper.

We also focused on reducing food loss and waste. The main dining hall in the Olympic/Paralympic Village was open 24 hours a day and always offered around 700 food menu options, including food prepared with religious considerations. The food loss and waste rate was suppressed to 14.5 per cent, by cooking with thorough demand forecasting and careful checking of the food consumption.

On the other hand, 24 per cent of lunch boxes prepared for the security staff, and competition and volunteer staff at 43 venues such as the Olympic Stadium were uneaten at the opening period of the Olympic Games (July) due to shift schedule changes on the day of competitions, although a reservation system for making accurate orders had already been implemented.

After that, by optimising the ordering system and cooperating with food banks, uneaten meals rate was dropped to 8 per cent at the closing period of the Paralympic Games (September), resulting in an average uneaten rate of 19 per cent over the Games period.

We have learned a lot of lessons through improving preparation and making comprehensive on-site judgment. We thank all those involved in resource management for their efforts. At the same time, I would like to widely disseminate this report for better resource management practices.

SAKITA Yuko

3.3

Natural Environment and Biodiversity

City within Nature / Nature within the City

3.3 Natural Environment and Biodiversity

Overview

Japan has a rich natural environment made up of naturally existing green spaces and rivers as well as new greenery and waterfronts that have been created and maintained not only by government agencies, but also private-sector companies, local organisations, and private individuals, among other stakeholders.

However, the natural environment is being threatened by development, overfishing, climate change and other problems. Protecting this abundant natural environment is extremely important, which is the basis of the targets set to halt the loss of biodiversity at the tenth meeting of the Conference of the Parties (COP10) to the Convention on Biological Diversity held in Japan in 2010.

In line with this philosophy, the Tokyo 2020 Games aimed to achieve the major goal of "City within Nature/Nature within the City" by working to minimise the environmental impact of holding the Games and undertaking initiatives through the Games to improve the comfort of the urban environment in harmony with nature.

We aimed to reduce the environmental impact of the Games through initiatives that include the effective use of water at venues, conservation of existing trees and creation of new greenery. To provide favourable environmental conditions for the Games, we took measures to manage heat at the venues and other areas, and to maintain the quality and temperature of the waters at Odaiba Marine Park. With the year of the Tokyo Games set as the target year, efforts to colour urban areas with flowers and greenery were carried out throughout the city to create centres of biodiversity where people can get close to nature. By holding the Games in Tokyo, we were able to undertake initiatives that work toward creating a city within nature and with nature within the city.

Heat-related measures

In light of the importance of heat-related measures for successfully holding the Games, the Tokyo 2020 Organising Committee in cooperation with the Government of Japan (GOJ) and, the Tokyo Metropolitan Government (TMG), implemented detailed measures that were planned for each stakeholder and every aspect of the Games, based on the outcome of trials at test events. Since the Games took place amidst the COVID-19 pandemic, balancing measures against heat with measures to control the infection was a top priority.

In terms of heat conditions during the Games, there were a number of humid days in Tokyo during the Olympic Games (21 July - 8 August 2021) with no notable high temperatures, and during the Paralympic Games (24 August - 5 September) temperatures fluctuated significantly, with high temperatures in August and low temperatures in September.

Although there were 214 patients with heat-related illness during the Olympics and 66 during the Paralympics, we were able to control the occurrence of serious cases. To mitigate the impacts of potential high temperatures, we also changed the schedule for some events.

(1) Initiatives for each stakeholder and aspect of the Games

Tokyo 2020 implemented the measures given in the table below, accounting for each stakeholder, including athletes, competition officials, spectators and Games staff, as well as every aspect, including facilities equipment, beverage supply, and preventive management.

Heat-related measures for Tokyo 2020 Games

	Athletes, competition officials	Spectators (Only for venues with spectators. At venues with no spectators, we used the following measures effectively for others at venues.)	Games staff, Games volunteers
Facilities and equipment	・Athlete lounges ・Athlete rest areas ・Solar-heat-blocking pavement ・Zoning road for athletes ・Fans, misters	・Shaded areas, parasols ・Cool-air circulators, electric fans ・Rest areas for those who feel sick ・Aiding spectators on the last mile to venues	・Workforce dining areas ・Shaded areas, parasols ・Cool-air circulators, electric fans ・Rest areas
Beverage provision	・Providing beverages	・Selling beverages ・Allowing beverages to be brought in (under certain conditions) ・Temporary water taps	・Providing & selling beverages ・Water dispensers ・Tokyo 2020 official water bottles made from 100% recycled PET
Preventive operations (incl. equipment)	・Changing event schedules ・Collaborating with IF in reviewing standards for interrupting/cancelling a competition, rules on rehydration ・Providing ice bags ・Cooling vests for competition officials	・Sport presentation ・Announcement at venues ・Distributing paper hand fans ・Mist-spraying clues ・Potted plants of morning glories in pedestrian screening areas (PSAs)	・Explaining ways to take adequate breaks ・Notebooks for health management ・Providing salt tablets ・Providing body cooling sheets ・Providing "OSHIBORI" (wet towel to wipe the hands and face) ・Wearing sunglasses (guards)
Medical operations	・Medical office for athletes ・Ambulance deployment ・Medical ice bath	・Medical office ・Ambulance deployment ・First responders' patrolling venues ・Building first-aid stations	・Medical office ・Ambulance deployment
Information provision, sending reminders	・Disseminating weather information through IF/NF, NOC, NPC ・Weather Information Centre ・Explaining Japan Tourism Agency's Safety Tips ・WBGT monitoring	・Tokyo 2020 official website ・Tokyo2020 Cooling Project ・Tokyo 2020 official mobile app ・Digital guide sent to spectators ・Website of Japan's Ministry of the Environment, Japan Meteorological Agency ・Explaining Japan Tourism Agency's Safety Tips ・WBGT monitoring	・Enhancing understanding of the measures at pre-Games training ・Explaining Japan Tourism Agency's Safety Tips ・WBGT monitoring

*For more details, see 1.3"Overview of Sustainability Initiatives"(*page 9*).

For example, for athletes and competition officials, we provided places to cool off, such as air-conditioned athlete lounges and rest areas, and made sure that drinks were immediately available at all times, including during road races. For referees and other competition officials who spent most of their time working outdoors, we provided cooling vests that cool down the body.

At the venues with spectators, * we set up tents at entrance lanes to provide shaded areas for spectators. We also allowed beverages to be brought in under certain conditions to enable them to rehydrate frequently.

Tokyo Tap Water Station installed in front of the dining hall, Olympic/Paralympic Village

Tokyo Tap Water Station in the dining hall

* Olympic Games: Tennis, Women's Football, Women's Marathon; Paralympic: Wheelchair Tennis

Similarly for Games staff, we provided shaded areas, made sure they can rehydrate anytime, and distributed salt tablets. Since the outdoor venues such as Odaiba Marine Park and Kasumigaseki Country Club were particularly hot, the ice cream we provided to the Games staff refreshed both body and spirit and was well received.

Additionally, TMG installed the Tokyo Tap Water Station, where Tokyo's tap water was available for drinking, in the Olympic/Paralympic Village. This was quite popular, with many athletes and volunteers coming to fill up their own water bottles. They offered comments such as, "It's good and convenient. I can drink cold water anytime" and "Tokyo's tap water is clean. I love it."

(2) Working with COVID-19 measures and revisions in competitions

Tokyo 2020 worked to balance our heat-related measures with COVID-19 measures. We posted information boards to encourage physical distancing at shaded spaces and other areas, as well as actively called out for rehydration in light of the higher risk of heat-related illness due to wearing masks.

We assessed the state of the heat stress index (wet bulb globe temperature: WBGT) inside and around all 43 competition venues with the cooperation of Japan's Ministry of the Environment, and used these data to remind of and boost preventive action for Games staff and related people.

To deliver competitions, we had set the competition schedules that consider hot weather conditions in consultation with the International Federations (IFs) and other parties. However during the Games, we made revisions and changed the times of some events* to avoid daylight hours and other conditions based on the weather conditions.

Information boards at venues showing measures against COVID-19 and heat illness

Display board showing the heat stress index installed at the entrance of a venue

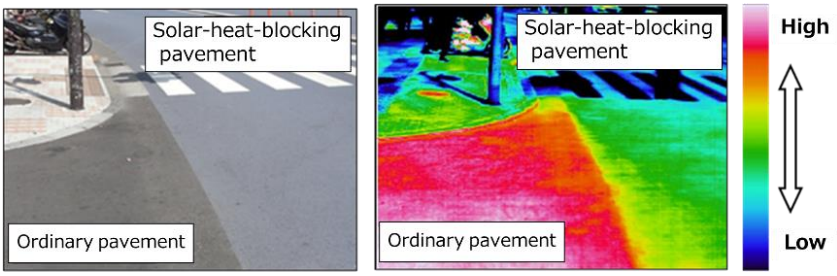
(3) Measures in the city

In preparation for the Tokyo 2020 Games, TMG created cool areas at the vicinity of competition venues to alleviate the heat sensed by people. They also created cool spots and installed heat mitigation systems such as eaves and misters at public transportation facilities and other establishments. With eight cool areas and 56 cool spots installed by March 2021, this measure helped alleviate the heat felt by passers-by.

Moreover, measures were undertaken to lower the heat from roadways. At the Paralympic marathon course and other road spaces around the venues, pavements with road surface temperature control were installed on 5.6 kms of national roads (as of June 2021) and 157 kms of municipal roads (as of March 2021).

On the routes that serve as marathon courses and access routes to major competition venues, comprehensive measures to control the rise in temperature were implemented, such as systematic pruning of trees to make them larger in size in order to provide shade from the strong summer sun.

Development of a cool area
(vicinity of Tobitakyu Station, Chofu City, Tokyo)
Photo: © Bureau of Environment TMG



Reduction of road surface temperature using solar-heat-blocking pavement (infrared thermal image)
Photo: © Bureau of Construction TMG

Air and soil considerations

In preparing competition venues and other areas, we accounted for the use of chemicals, the risk of soil contamination, and the impact on air and noise, based on the Tokyo 2020 Olympic and Paralympic Environmental Impact Assessment that was independently conducted by TMG. In particular, we actively used low-VOC (volatile organic compound) paint, used clean construction vehicles and construction machinery that produces minimal exhaust gases, and controlled soil and dust by cleaning the tires of construction vehicles as they depart.

For Games-related transportation, we used clean and fuel-efficient vehicles, such as fuel cell electric vehicles,[*1] as Games fleet vehicles. Furthermore, we issued the Venue Delivery Guide[*2] and provided driver training to ensure they practice eco-driving, such as limiting sudden starts and stops, to reduce environmental impacts and cut carbon dioxide emissions.

*1 For more details, see Section 3.1 Climate Change (*page 31*).

*2 Venue Delivery Guide
A guidebook sent to shipping businesses hired by FAs, delivery partners and other stakeholders that explains safe and efficient vehicle entry and exit routes for Games-related distribution and rules for moving in and out of venues at different time periods.

Water circulation and quality

(1) Initiatives for the Games

a. Using rainwater and other sources at venues

We installed systems that use rainwater, recycled water or recirculated water for various purposes in some of the new permanent venues, such as the Olympic Stadium and Ariake Arena. We also installed a filtration facility at the Kasai Canoe Slalom Centre to recycle water stored at the courses and effectively utilise valuable water resources.

b. Managing water quality and temperature at Odaiba Marine Park

Odaiba Marine Park

For several years, TMG and Tokyo 2020 have held discussions with the International Swimming Federation, World Triathlon and the IOC to stabilise water quality at Odaiba Marine Park, the competition venue for Marathon Swimming and Triathlon, and have undertaken various measures such as conducting water quality and temperature surveys as well as testing underwater screens. The surveys and tests revealed that the water quality tends to deteriorate after rainfall and that the underwater screens inhibit the inflow of E. coli and other bacteria.

Based on these results, we deployed three-layer screens for better inhibiting effect during the Olympic and Paralympic Games held in 2021. To address concerns regarding the rise in water temperature due to the screens, the screens were designed with a sink-float mechanism. When the weather is stable, we moved down a screen to let in tidal streams from outside the screen and used a water circulation system to generate water currents that mix higher-temperature water near the surface with the cooler water beneath to effectively balance out the overall temperature.

There had been concerns about water quality during the Games, since the swimming portion was cancelled at the Triathlon test event in 2019. But by taking measures based on our surveys

and testing, we were able to secure the required water quality and temperature to successfully complete all the competitions.

(2) Improving water circulation in the city

Planned efforts to improve the waters at the capital, including rivers and seas, have been ongoing for some time. TMG accelerated these projects ahead of the Tokyo 2020 Games for the many events to be held in coastal areas.

More specifically, the combined sewers that serve the majority of central Tokyo discharge rainwater mixed with sewage to the rivers and sea during heavy rains. To reduce the pollutant load, a facility to store particularly dirty sewage in the early stages of rainfall was built with a total capacity of 1.5 million m^3 by March 2020.

Moreover, to further improve the quality of treated sewage discharged into rivers and other waters, advanced treatment and semi-advanced treatment facilities were constructed to remove more amounts of nitrogen and phosphorus, which are some of the causes of red tide. Treatment capacity within TMG's cities reached a total of 3.34 million m^3/day (as of March 2021).

Furthermore, efforts to revitalise Tokyo Bay are also underway. This includes ongoing public awareness campaigns on environmental surveys and water quality improvement in Tokyo Bay and feeder rivers, with the participation of related ministries and agencies, local governments along the bay, including Tokyo, Chiba, and Kanagawa, as well as businesses and civic groups.

Greening

(1) Competition venues

Conserving existing trees wherever possible in the construction of permanent venues, by taking existing planted areas into consideration from the design stage and minimising changes to these areas. In addition, we transplanted trees and planted new trees of native species. We also carried out greening at the Olympic/Paralympic Village to blend in with the surrounding greenery at Harumi Greenway (tentative name) and Harumi Port Park for the after use.

Most of the new permanent venues are located in the Tokyo Bay Zone. These venues run along an existing green network at the waterfront area, and contribute to the creation and maintenance of an ecological network by providing new green areas.

(Permanent venues)

Competition venue	Number of saved trees	Number of transplanted trees	Number of newly planted trees
Olympic Stadium*1	Approx. 10	130	Approx. 47,000
Permanent venues developed by TMG*2	Approx. 37,530	Approx. 120	Approx. 24,860

*1 For new construction only

*2 Values planned for the Tokyo Aquatics Centre, Sea Forest Waterway, Ariake Arena, Kasai Canoe Slalom Centre, and Yumenoshima Park Archery Field (including those carried out after the Games), as well as the total number of trees at the time of completion of Musashino Forest Sport Plaza

Tree planting at Ariake Arena to show support for reconstruction
Photo : ©TMG

As part of efforts by TMG to support reconstruction in areas affected by natural disasters, a tree-planting event to rally hope for fast reconstruction was held at Ariake Arena before the Games in June 2021. Prefectural trees from the four prefectures struck by major natural disasters in recent years, Iwate, Miyagi, Fukushima and Kumamoto, will grow to become symbolic reminders of Tokyo 2020 as the "Reconstruction Games" even after the Games. Further greening initiatives are planned, in consideration of the surrounding environment.

(2) Pleasant urban green spaces

TMG engaged in various projects to make Tokyo an attractive, green city with flowers and foliage, including the Tokyo Greenery and Flowers Promotion project supporting businesses to plant flowers and trees, and City of Flowers Project encouraging municipalities to work with local communities and groups to brighten up the city with flowers and greenery in preparation for the Tokyo 2020 Games.

To cover the city with colourful flowers, flower merry-go-rounds and Flower Canvas were designed by Katsushika City, and set up in the Symbol Promenade Park and Yume no Ohashi in Ariake, where the Olympic and Paralympic cauldron was located, and in areas close to the competition venues such as Makuhari Messe. Flowers and greenery were utilised to better a city landscape even after the Games; for example, seven flower merry-go-rounds have been installed at the Symbol Promenade Park.

Mascot Garden (By TMG : center) and Flower merry-go-round (left/right) installed at Symbol Promenade Park

©Katsushika City

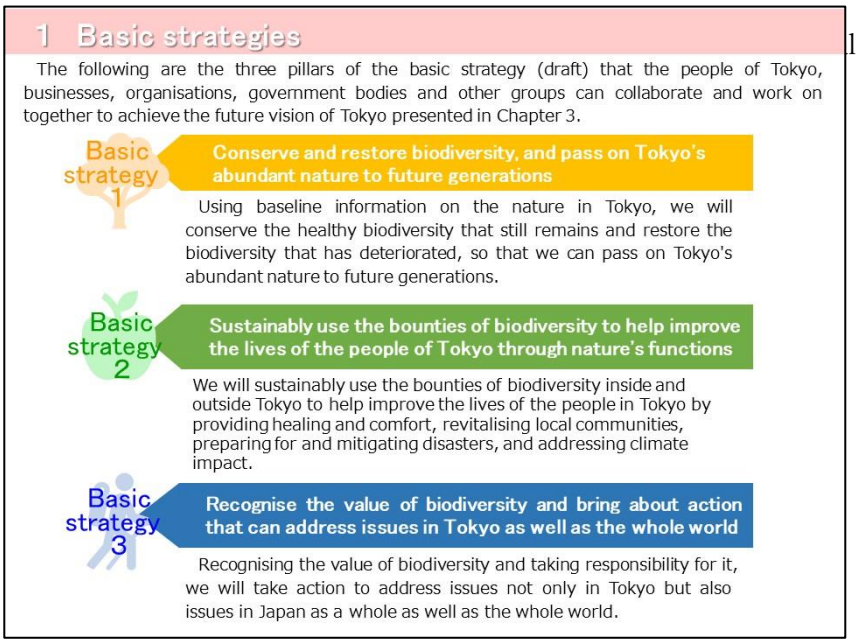
Volunteers and Katsushika's staff tending to the flowers at the Flower Canvas during the Games
©Katsushika City

Biodiversity conservation and regeneration of natural environments

A variety of initiatives related to the conservation of biodiversity were carried out in preparation for the Games, as 2020 is the year targeted by (short-term) initiatives designed to achieve biodiversity under the 10th Meeting of the Conference of the Parties (COP10) to the Convention on Biological Diversity.

Goals and targets under the new Post-2020 Global Biodiversity Framework are expected to be established in 2022. In light of this, TMG is reviewing and considering revisions on its regional biodiversity strategy (fundamental plan for conservation and sustainable use of biodiversity).

The draft strategy clearly provides a path toward sustainable biodiversity and states its commitment to the following main pillars: (1) conserve and restore biodiversity, (2) sustainably use the bounties of biodiversity to help improve the lives of the people of Tokyo, and (3) recognise the value of biodiversity with the aim of bringing about behavioural changes that can also address global issues.



Revised Regional Biodiversity Strategy of Tokyo: Zero Draft (Source: TMG's Bureau of Environment website)

(1) Initiatives for the Games

a. Sea turtle nesting at Tsurigasaki Surfing Beach

Sea turtle nesting at Tsurigasaki Beach (during test event in 2019)

Kujukuri Beach, where Tsurigasaki Surfing Beach is located, is a nesting ground for the rare loggerhead sea turtles . We had confirmed that sea turtles has laid eggs at the venue, Tsurigasaki Beach, prior to the test event in 2019 and in 2020. In September 2020, it was confirmed that the majority of the turtles hatched and reached the ocean. When the eggs were laid, Tokyo 2020 worked with authorities in Ichinomiya, Chiba and a local group to protect sea turtles to section off and protect the nesting sites.

We also set up a system together with the stakeholders to manage the situation: i.e. to protect any eggs and conduct events during the Games. No eggs were found in Tsurigasaki Beach in 2021. The cause is not clear, but the number of loggerhead sea turtles' eggs is reportedly decreasing nationwide.

b. Invasive alien species management

In autumn 2019, a large number of queen fire ants, which are designated as a designated invasive alien species* of Japan, were discovered at Aomi container terminal, one of the Port of Tokyo's primary container terminals. To ensure the safety of the Games, in 2020 and 2021 we worked with GOJ and TMG to search for fire ants where there is concern that they will have an impact in Tokyo Bay Zone venues. No fire ants were discovered in the search.

At a Tokyo Bay Zone venue the redback spider, another designated invasive alien species, has also been discovered. It was properly exterminated upon discovery and concerned parties were alerted, resulting in no reported human harm.

While carrying out these searches and extermination, we conducted briefings for the Games staff on the biology and dangers of fire ants and redback spiders, and on biodiversity conservation.

＊Designated Invasive Alien Species:
An alien species designated by Cabinet Order based on the Invasive Alien Species Act that will cause or is likely to cause adverse impacts on ecosystems, human safety, or agriculture, forestry and fisheries.

c. Campaign to prevent ivory export from Japan

TMG worked together with GOJ and Tokyo 2020 on a campaign to inform athletes and related staff arriving in Japan for the Games and to prevent the illegal export from Japan of ivory products,

which are banned for international commercial trade.

(2) Biodiversity conservation in the city

Out of 31 Tokyo metropolitan parks that based for local ecosystems, extensive environmental improvements were carried out on eight parks by 2020. At other metropolitan parks, conservation measures for rare species that suit the characteristics of each park were also carried out to provide habitats and spaces for growth for various flora and fauna throughout the park.

For marine parks, Kasai Marine Park, next to the Kasai Canoe Slalom Centre, was the first Ramsar Site designated in Tokyo on October 18, 2018. The tidal flats that spread over a wide area of the park are home to a variety of marine life such as shellfish and crustaceans, as well as many flying migratory birds. TMG will continue to conserve its natural environment and promote more sustainable uses of tidal flats according to the philosophy of "wise use" advocated by the Ramsar Convention. For all the marine parks, tidal flats, sandy beaches, rocky beaches and other areas have also been improved, and efforts have been carried out to conserve and create biotopes for various living creatures.

Also, during the development of Kasai Canoe Slalom Centre, the facility layout was revised from its planned location during the candidacy stage to its current location, in order to account for the natural environment and reduce the impact on biological life at the park.

The Ariake Marine Park (tentative name) will be developed as a park together with the Ariake Arena, which will remain after the Games. The park will be created with the participation of Tokyo residents and will also be utilised as a place for environmental education after its opening. In addition to helping alleviate Tokyo's heat island effect, the Harumi Greenway (tentative name) and Harumi Port Park, which were part of the Olympic/Paralympic Village, will also be transformed into a place where city dwellers can come in contact with nature after the Games.

Businesses are also carrying out greening initiatives that take biodiversity into consideration. TMG operates the Edo-midori Registered Green Space System, a public registry of private-sector green spaces where plant species native to Tokyo are actively planted. Since the establishment of the system in 2017, a total of 12 locations in Tokyo have been registered and the number of ecologically friendly green spaces have been growing across the city.

Through these initiatives, we have been greening the Games venues as well as connecting urban districts and waterfront areas with ecologically friendly greenery, and has helped create and expand the ecological network that provides habitats for flora and fauna.

Example of the kinds of birds found in Kasai Marine Park (© TMG)
Greater scaup

Harumi Greenway (tentative name)

Harumi Port Park

Integrating biodiversity in Games procurement

In procuring for the preparation and delivery of the Games, we promoted biodiversity considerations across the supply chain through the implementation of our Sustainable Sourcing Code.[*1] Likewise, GOJ and TMG have also been promoting efforts to implement Good Agricultural Practices (GAP) and increase the number of certifications, with the aim of providing food for the Games and realising sustainable agriculture, forestry and fishing industries.[*2] As a result of these efforts, the number of national GAP certified groups reached approximately 8,000 groups as of March 2021, an increase of about 1.8 times in the four years since the establishment of this food procurement standards. Around 22,000 business groups have also been certified for prefectural GAPs. As such efforts are underway to consider sustainability, in the production of agricultural and livestock products.

*1 For more details, see Section 3.6 Sustainable Sourcing (*page 95*)

*2 For more details, see Chapter 3. Natural Environment and Biodiversity *(page 95)* of the Sustainability Pre-Games Report

Status of each target

Key area	Status
To minimise the environmental impact of the Games, enhance the functions of water circulation in the city and improve the comfort that urban environment can offer	・We implemented detailed heat measures that took into account each stakeholder and aspect of the Games, while making sure to conform with COVID-19 measures. ・For air and soil considerations, we used low-VOC paint in construction work and employed clean and fuel-efficient vehicles for Games-related transportation. ・We installed systems that recycle rainwater and other water used at the venues. In addition, we took measures to ensure proper water quality and temperature for the waters at Odaiba Marine Park, based on the results of the test event and demonstration tests. ・TMG implemented planned projects to develop sewerage facilities as well as other initiatives to enhance the functions of water circulation in the city.
To develop an urban environment with a rich ecological network by conserving biodiversity, creating lush greenery and water environment, and forming an attractive landscape	・We preserved existing trees at venues and created greenery using tree species suitable for the development site. ・TMG supported initiatives that create areas with flowers and greenery in local communities. ・We worked hard to protect biodiversity at the Games through measures such as invasive alien species management and protection of rare species at the venues. ・TMG carried out the necessary development and maintenance of metropolitan parks and marine parks in order to provide habitats and spaces for various flora and fauna.
To minimise the environmental impact associated with production, distribution and procurement necessary for the Games by preventing environmental contamination and protecting biodiversity	・We implemented the Sustainable Sourcing Code to encourage business to incorporate their impact on biodiversity through the supply chain for procurement necessary for the Games. ・GAP was implemented more widely and the number of certifications increased, and more consideration was given to sustainability in agricultural and livestock production.

Lessons and takeaways from the Games

We searched for and eliminated invasive alien species at the competition venues, as well as worked to protect rare sea turtles. For Games-time staff, these initiatives turned out to be great opportunities to make such issues more familiar and learn more about biodiversity conservation.

Planting trees at the Ariake Arena and tending the flower merry-go-rounds were planned to be carried out with many people as an opportunity for participation and collaboration, but due to COVID-19 we had to scale down the number of participants, and activities were not carried out as planned.

With the year of the Tokyo 2020 Games set as a target year, efforts were carried throughout the city by municipalities, communities and groups to colour urban areas with flowers and greenery and create centres of biodiversity where people can get close to nature. By holding the Games in Tokyo, we were able to undertake initiatives to create and maintain a pleasant urban environment in harmony with nature.

This initiative to create a city within nature/nature within the city is relevant not only during the Games but also as a potential roadmap after the Games for creating a natural environment in the city. Each stakeholder involved in environmental conservation, including Tokyo 2020, GOJ and local governments agencies, has to work together with post-Games use in mind. Tokyo 2020, in collaboration with GOJ and TMG, implemented heat-related measures during the Games and took measures that will lead to better thermal environments in Tokyo after the Games, including creating cool areas and cool spots and installing solar-heat-blocking pavement on municipal and national roads.

These initiatives at the Tokyo 2020 Games have made us as a community realise once more the importance of creating and preserving a rich natural environment. Even after the Games, we hope that various stakeholders will move on and continue with actions aimed at achieving a pleasant urban environment in harmony with nature.

3.4

Human Rights, Labour and Fair Business Practices

Celebrating Diversity – Inspiring Inclusive Games for Everyone

3.4 Human Rights, Labour and Fair Business Practices

Overview

The Tokyo 2020 Games declared "Unity in Diversity" as one of its core concepts. This concept was put into practice in the main sustainability theme of "Human Rights, Labour and Fair Business Practices."

The Tokyo 2020 Games was held as the first Olympic and Paralympic Games that strived to align with the principles and procedures of the UN Guiding Principles on Business and Human Rights. In an age of growing recognition of the fundamental value of human rights, we worked to demonstrate leadership in practicing respect for human rights through this mega-sporting event. To achieve our goal of "Celebrating Diversity — Inspiring Inclusive Games for Everyone", we made efforts to create an environment conductive to the delivery of a Games that embodies diversity and inclusion (D&I) *1, in which no one experiences discrimination or harassment based on race, colour, sex, sexual orientation, gender identity, language, religion, political view, social status, age, or impairment, in every field of preparation and operation of the Games.

*1 Diversity and inclusion (D&I) refers to a state in which people of all walks of life can understand and accept each other's differences, allowing everyone to be their fullest selves, without experiencing discrimination or harassment

The Games was also expected to go beyond its immediate scope to have an impact that would instil respect for human rights and D&I in society. To achieve this, we provided education for staff that prepared and operated the Games as well as others involved in the Games, and partnered with many stakeholders in the field of human rights. From February 2020, when the role of the Tokyo 2020 Games — which champions Unity in Diversity — in promoting gender equality and D&I within Japanese society came into question, we took specific actions such as establishing a Gender Equality Promotion Team, and called on people to work towards a society where everyone is free to live as who they are.

Through the Opening and Closing Ceremony performances, and the teamwork of our diverse staff who operated the Games, we conveyed to people around the world the beauty of a society that celebrates "Unity in Diversity".

The impact of coronavirus disease 2019 (COVID-19), postponement of the Games, and its implementation with almost no spectators

The COVID-19 pandemic put serious limitations on human interaction, and our human rights and D&I initiatives during the postponement and running of the Tokyo 2020 Games took place under circumstances different to what was planned or assumed. In particular, the Games was held with very few spectators, and there was a limit to how much athletes and other visitors in Japan could experience Japanese society, culture and technology, and interact with local people. This represented a loss of a major opportunity to deepen understanding of and promote D&I through and beyond the Games in Japanese society.

At the same time, societal changes related to sport and human rights*2 also arose in the period between postponement and the ultimate opening of the Games, which led to initiatives within the world of sport and by International Olympic Committee (IOC) in acceleration of existing efforts. These developments went on to have an impact on how the Tokyo 2020 Games was held and the athletes' action. As a result, the initiatives of Tokyo 2020 and partner organisations that were steadily developed over the course of eight years of preparation and operation still bore some fruits.

* 2 Such as the rise of social activism in sport sparked by Black Lives Matter and other movements, increased awareness of abuses in sport, greater concern for athletes' mental health, and the impact of political situations and conflict on sport

The Tokyo 2020 Games and human rights, D&I, gender equality and Unity in Diversity

As an Olympic and Paralympic Games that promotes human rights, D&I, gender equality and Unity in Diversity, and that was held in the midst of large societal changes exacerbated by the global pandemic and related to sport and human rights, the Tokyo 2020 Games was distinct in a number of ways.

(1) Diversity of participating countries and regions

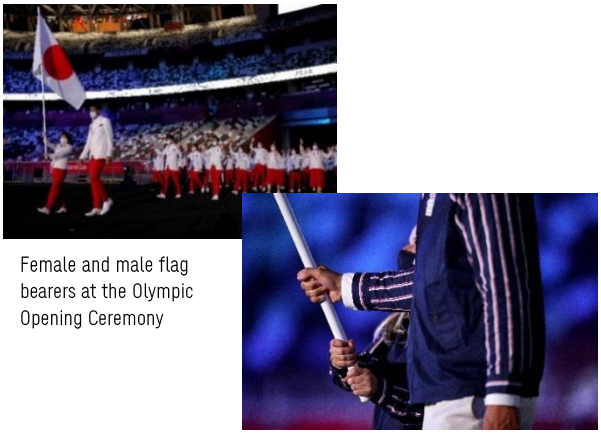
IOC Refugee Olympic Team Tokyo 2020

A total of 205 National Olympic Committees participated in the Olympic Games Tokyo 2020, and 162 National Paralympic Committees in the Tokyo 2020 Paralympic Games. In addition, the IOC Refugee Olympic Team and the IPC Refugee Paralympic Team composed of athletes that have fled their homes due to factors such as conflict and persecution participated in the Games respectively.

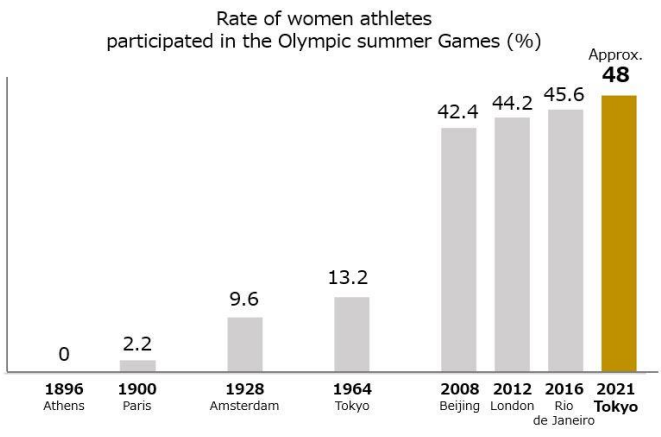
(2) Greater gender equality

The Tokyo 2020 Olympic Games was the most gender balanced of any Olympic Games in history, with 48% women athletes competing, and the Tokyo 2020 Paralympic Games had the largest number of women athletes ever participating in a Paralympic Games with 42% women athletes competing.

Olympic Games Tokyo 2020	Tokyo 2020 Paralympic Games
● About 48 per cent of the athletes participating were women. ● Substantial improvements to the competition schedule to give equal visibility between women's and men's events and featured nine more mixed events than at Rio 2016, raising the overall number to 18. ● 201 in total, out of 205 participating National Olympic Committees (NOCs) and the IOC Refugee Team, had at least one female athlete in their respective Olympic teams. ● All the NOCs and the Refugee Team were encouraged to have their flag carried by one female and one male athlete at the Opening Ceremony. As a result, 91% of participated NOCs and the Refugee Team had both a female and a male flag bearer.	● About 42 per cent of all the athletes were women: 1,853 athletes, an increase on the 1,671 women who competed at Rio 2016 (38.6 per cent). ● Forty mixed events were held, two events more than that at Rio 2016. ● 140 in total, out of 162 participating National Paralympic Committees (NPCs) and the IPC Refugee Team, had at least one female athlete in their respective Paralympic teams. ● All the NPCs and the Refugee Team were encouraged to have their flag carried by one female and one male athlete at the Opening Ceremony. As a result, 60% of participated NPCs and the Refugee Team had both a female and a male flag bearer.



Female and male flag bearers at the Olympic Opening Ceremony



(3) Greater focus on the Paralympic Games and an inclusive society

The Tokyo 2020 Games were consistently planned and operated with the Olympic and Paralympic Games as a single unit, and with the goal of successfully and holistically implementing the Games, from the initial planning stages onward. Based on the notion that the Tokyo 2020 Games will not succeed without a successful Paralympic Games, a wide variety of stakeholders including the Government of Japan (GOJ), the Tokyo Metropolitan Government (TMG), participating local governments and partner companies strove to create opportunities for the Paralympic Games, and to widely share the significance of achieving an inclusive society where diverse people can live together equally.

(4) Participation and promotion of LGBTQ athletes

LGBTQ[*1] is an essential theme in efforts to eliminate discrimination and harassment in sport. The Tokyo 2020 Games had the highest-ever number of participating athletes who declared themselves as openly LGBTQ.[*2] There were transgender athletes who participated in events in their self-identified gender category, as well as proactive statements from LGBTQ athletes. The Opening and Closing Ceremonies featured performances highlighting respect for diversity, including those who are LGBTQ.

*1 LGBTQ is an acronym that stands for lesbian, gay, bisexual, transgender, and queer (or questioning), referring to a sexual minority

*2 Number of publicly out LGBTQ athletes at the Tokyo 2020 Games
Olympic Games: at least 186
(56 at Rio)
Paralympic Games: at least 36
(12 at Rio)
(Source: Pride House Tokyo)
The numbers differed according to country and region — for example, there were no openly LGBTQ athletes on the Japan team.

(5) Social activism in sport

When it comes to athletes' freedom to express their views (and to demonstrate) whilst participating in sport, Black Lives Matter and other anti-racism protest movements in particular have sparked continuous debate within society and the world of sport. This also took place within the Olympic Movement. Following one year of active discussion and a wide consultation with athletes led by the IOC Athletes' Commission, the IOC revised Rule 50 of the Olympic Charter — which states that no kind of demonstrations or political, religious or racial propaganda is permitted in any Olympic sites, venues or other areas — and announced new guidelines known as "Rule 50.2 Guidelines — Olympic Games Tokyo 2020" [*3], which were released in July 2021 and applied for the first time in Olympic history. These new guidelines made it possible for athletes to express their opinions and make their social activism visible on the field of play under certain conditions.

A number of athletes seised the opportunity to express their views and stance for social justice at the Tokyo 2020 Games. These included women's football players and referees "taking the knee" before a game as a protest against racial discrimination.

*3 https://olympics.com/athlete365/app/uploads/2021/07/Rule-50.2-Guidelines-Olympic-Games-Tokyo-2020-Final.pdf

Women's football players protesting racial discrimination

Initiatives for Unity in Diversity

Through our initiatives for Unity in Diversity, such as promoting D&I and ensuring accessibility, we strove to present a Games that could be enjoyed by everyone without discrimination or harassment.

(1) Games staff

A diverse team of Games staff operated the Games

The workforce who prepared for and operated the Tokyo 2020 Games was formed of Tokyo 2020 staff, Games volunteers and contractors.

To realise Unity in Diversity for the Games staff, we first strove to secure diverse human resources. It then became necessary to adjust our personnel roster directly before the Games because of COVID-19 risk factors on specific categories of age, as well as the need to implement Games without spectators. This being said, we maximised our use of the original roster, adjusting positions and shifts in an efforts to secure and maintain as diverse as possible human resources. At the Games, staff respected one-another's differences and worked together to operate the Games.

a. Diversity of Tokyo 2020 staff

Tokyo 2020 is an organisation that embodies diversity, and is formed of directly employed staff along with secondees from GOJ, TMG, administrative organs of local authorities as well as private businesses and organisations including sponsors. When recruiting directly employed staff, we set no age limitations and did not ask for applicants' gender, with the goal of securing diverse human resources. Up until directly before the Games, we continued recruiting people from diverse backgrounds regardless of age, nationality or ability, and ultimately had approximately 7,000 members of staff during the Games.*1

*1 For data on Tokyo 2020 staff, see Appendices, Employment & Diversity (*pages 135-136*)

b. Games volunteers

Before Games postponement we had planned to welcome approximately 80,000 volunteers from 120 countries and regions, but with the spread of COVID-19 we were forced as a general rule to no longer accept volunteers of non-Japanese nationalities who live overseas. In the end there were approximately 70,000 volunteers in ages ranging from teens to those in their 90s, with around 40 per cent male and 60 per cent female participants, who worked in a variety of areas including guidance, events, mobility support, health care, technology, media and ceremonies.*2

*2 For data on Tokyo 2020 Games volunteers, see Appendices, Tokyo 2020 Games Volunteers (*page 137*)

(2) Games venues and operation

An accessible bathroom in the residential unit of Olympic/Paralympic Village

So that Unity in Diversity viewpoints would be reflected in the Games, we provided continuous training on themes such as D&I and accessibility for new Tokyo 2020 staff and Games volunteers.

Under the premise that there would be spectators at venues, we made preparations for various aspects of the Games in order to be considerate of gender and gender identity, religion, impairments and other factors. Some changes of plan were necessary to prevent the spread of COVID-19, but we operated the Games with utmost consideration for D&I.

For example, in the Olympic/Paralympic Village we offered a diverse array of food options, provided worship spaces and accessible toilets for spectators, athletes and Games staff, provided toilet spaces for assistance dogs (by installing facilities or loaning out toilet supplies), and took measures to consider diversity and prevent discrimination and harassment of spectators and athletes wherever possible, including at security checks, in medical services and during events.

Also, we consistently worked on accessibility in venue development, information accessibility and mobility support, such as having additional ramps or wheelchair seats in the competition

An accessible vehicle operated with the support of Games staff

A certified Halal meal corner

A Japanese meal

A poster for online faith services

President Hashimoto with language volunteers

venues, room with an accessible bathroom in the Olympic/Paralympic Village, tactile guide maps and wayfinds in multiple languages, designation and preparation of accessible routes within venues, mobility support with accessible vehicles, etc..

[Case studies]

- Diverse food options in the Olympic/Paralympic Village

In the main dining room of the Olympic/Paralympic Village, we provided familiar foods from regions around the world that suit diverse dietary customs, such as vegetarianism or Islamic practices. Nutritional information was displayed according to serving amount to make nutrient intake easily understandable, and we also offered a corner with gluten-free foods, which have been in high demand from athletes in recent years. We also provided familiar foods from regions around the world. At the casual dining, a diverse selection of Japanese meals also utilised ingredients from around the country and presented not only traditional Japanese dishes, but also modern Japanese food that is eaten every day.

- Multi-faith online services at the Olympic/Paralympic Village

We provided the first multi-faith online services of any Olympic and Paralympic Games. We had initially planned to establish a multi-faith centre within the Olympic/Paralympic Village, like at previous Games, but to prevent the spread of COVID-19, we opted to forego group gatherings and switched to a contactless model using pre-recorded and livestreaming worship services, and one-on-one online meeting counselling. We leveraged the online format to provide services to Satellite Villages outside of the Olympic/Paralympic Village in Harumi.

- Female athlete's department and physicians for Paralympic athletes

For the first time at an Olympic and Paralympic Games, we established a Female athlete's department in the Olympic/Paralympic Village polyclinic to provide comprehensive support to female athletes. To meet the request for medical care by female staff while providing primary health care as well as mental health support in a comfortable environment for female patients, registered female physicians provided treatment daily, and carried out examinations related to illnesses and other concerns of females whilst the Olympic/Paralympic Village was open.

To treat athletes with diverse kinds of impairments, during the Paralympic Games a surgeon was available who has extensive knowledge in providing medical care to people with impairments at the orthopaedics. A urology clinic was open daily and available to athletes.

- Multilingual communication at venues

To enable multilingual communication at event venues, we provided services such as interpretation by professional interpreters, conversation support by language volunteers to the media and athletes, and an interpretation service via telephone. A total of 29 languages (interpreting between English and other languages) were available at all venues. In addition, contents of performances at the Opening and Closing Ceremonies and announcements at competition venues were available as text in multiple languages by means of multi-lingual app "Omotenashi Guide".

An armband worn by a volunteer to indicate what languages they can interpret

Robots provided support and interaction at eye level for children and wheelchair

An operator remotely controlling a robot from Toyota, Aichi Prefecture

- Interaction with robots (Olympic Stadium)

During the Paralympic Games we deployed robots that engaged in activities such as providing bottled drinks, collecting rubbish and taking photos when requested by visitors. Their purpose was originally to support spectators in wheelchairs when accessing venues and viewing events, but as there were no spectators, we instead created various opportunities for athletes, volunteers and others at the Games to interact with the robots.

The robots had a screen on top that displayed the faces of the remote operators in three locations in Tokyo and Aichi, who provided face-to-face service via the screen to people at the venue. Some operators are themselves wheelchair users, and the robots provided another opportunity to show how anyone, regardless of ability, can play an active role, breaking down the boundaries between those giving and receiving support. There were operators who also said that working with the robots helped change their worldview.

- Prohibiting photography taken leading to sexual harassment

In order to ensure a safe and respectful environment of all athletes, Tokyo 2020 raised awareness amongst local photographers of taking respectful photos of athletes to protect their integrity. We explicitly prohibited photography for the purpose of sexual harassment at Games venues.

- Requesting gender equal and fair reporting of all athletes

Working with local media to raise awareness on fair portrayal of athletes — issues such as potential bias and appropriate selection of photos and vocabulary, in particular female athletes—, Tokyo 2020 translated the IOC Portrayal Guidelines*3 into Japanese and shared these guidelines with local media to raise awareness on the important role they can play to protect and respect all athletes.

*3 "Portrayal Guidelines — Gender-equal, Fair and Inclusive Representation in Sport." https://olympics.com/ioc/news/new-ioc-guidelines-to-ensure-gender-equal-fair-and-inclusive-representation-in-sport-in-tokyo

(3) Tokyo 2020 D&I Actions

During the transition period between the Olympic and Paralympic Games, Tokyo 2020 announced the "Tokyo 2020 Actions — Towards a society where everyone is free to live as who they are", declaring actions in order to take a positive step forward towards becoming a society that is diverse and inclusive.

Tokyo 2020's action commitment

- We commit to share the importance of developing "a society where everyone is free to live as who they are" by continuing to engage in open dialogue and communication with diverse people, and to create a movement that involves a wide range of stakeholders and spreads its value to society.
- We commit to ensure that our initiatives for "diversity and inclusion" targeting all the people involved in the Tokyo 2020 Games are put into practice at the Games, and to ensure that everyone plays a leading role at the Games free from discrimination and harassment.
- We commit to encourage all the stakeholders to get involved in our initiatives towards "a society where everyone is free to live as who they are," while making a record of achievements and future challenges of the initiatives, so that younger generations and the future Olympic and Paralympic Movement take over and continue the initiatives to grow.
- Each of the Tokyo 2020 members, after the Tokyo 2020 Games, commits to play a role as a legacy by continuing to take actions on an individual basis towards "a society where everyone is free to live as who they are" utilising the experience and knowledge gained through the Games.

Tokyo 2020 staff also brainstormed and pledged their own actions that they wanted to take.

Examples of staff actions

- I will actively seek exchange with people from different backgrounds and nationalities in my professional and private life to share and learn about different ways of thinking, cultures and customs.
- I will ensure my workplace is free from discrimination and harassment, and contribute to the advancement of decent work (work that is motivating and respects human dignity).
- I will be aware that my common knowledge is not necessarily shared common knowledge, and enjoy the differences of others.
- I will not hesitate to proactively offer assistance to anyone who may need it, regardless of ability or nationality.

Along with Tokyo 2020, the Japan Olympic Committee, the Japan Paralympic Committee of the Japanese Para-sports Association*4, Japan Sports Association and 25 Games partner companies also declared their own actions at the same time. When the declarations were announced, they were endorsed by the IOC and IPC Presidents, the TMG Governor, Japan's Minister for the Tokyo Olympic and Paralympic Games and the Paris 2024 President. We also called on wider society to participate, including sport organisations, athletes and other stakeholders. We hope that this movement continues after the Games, spurring new actions towards a society where everyone is free to live as who they are.

*4 The name of the Japanese Para-sports Association has been changed to the the Japanese Para Sports Association since 1 October 2021.

Many different people declared their own actions

Good labour practices

During the Games period, we strove to prevent the spread of COVID-19 and create environments that enable flexible working styles, so that Games staff could feel safe and secure in each of their workplaces.

(1) Preventing the spread of COVID-19

To hold a safe and secure Games, we took steps against the spread of COVID-19 by aiming to prevent infections among staff and handle positive cases appropriately. As a result of making safety our highest priority, the Games ended without any incidents of clusters among Games staff that could have affected the operation of the Games.

a. Preventing COVID-19 infections

Along with providing Games staff with face masks, portable bottles of sanitiser and health management checklists before the event, we also created Playbooks and guidelines summarizing information on rules of conduct and hygiene management at venues to prevent the spread of COVID-19. It included measures for venues such as ensuring physical distance between staff and athletes through separation of routes, establishing quarantine areas for people who develop fevers, and temperature checks before entering venues. Staff members who worked around athletes or overseas visitors were given routine PCR tests according to the amount of contact they had. In light of the case numbers in Japan during the Paralympic Games, we increased the frequency of testing for staff who have regular contact with athletes at the Paralympic Village from once every four days, compared to that of the Olympic Games time, to once each day. Testing allowed early identification and prompt isolation of those who tested positive, helping create a safe environment for the Games.

For carrying out the work at each venue, we also aimed prevent infection while operating the Games through methods such as proactively holding meetings remotely, which had been promoted for internal and external Tokyo 2020 meetings and for volunteer briefings since before transitioning to the Games operation structure. These efforts also helped reduce our environmental impact.*1

*1 Such as by reducing paper usage for printing

b. Handling positive cases

Along with creating guidelines for when someone tests positive, we introduced a Tokyo 2020 Infection Prevention Work Support System. We also assigned a COVID-19 Liaison Officer (CLO) for each Functional Area (FA) and contractor. The role of the CLO was to ensure everyone was aware of infection prevention measures during the Games, to manage worker health, and to make the necessary report and carry out other procedures if someone tested positive. When someone tested positive, the CLO managed the situation whilst using the Work Support System.

(2) Flexible and diverse working styles during the Games

We operated in a way that allowed Tokyo 2020 staff to work flexibly as much as possible to help ensure their mental and physical health and a good work-life balance, also during the Games.

Venue hours of operation and event schedules varied during the Games, and in order to work in a way that accommodated each event and role, we introduced systems for modified working hours and days off, with staff working in shifts according to their individual duties from July to September 2021. Whilst this enabled flexible working styles to meet the needs of each role, in actuality many staff had to work long hours of overtime for a number of reasons, including the concentration of work during the operation of a large-scale event, and the additional need to manage changes of plan due to COVID-19 and implementation with no spectators. After the Games we took steps such as referring staff who worked long hours to industry physicians, and holding training on post-Games selfcare that covered things like techniques to prevent the burnout syndrome that tends to occur at the end of a major project.

System for responding to human rights during the Games

(1) the Guidelines for Responding to Human Rights at the Venues

In September 2020 we established Guidelines for Responding to Human Rights at the Venues*1 that presented Games staff with concrete scenarios and expected responses to both prepare themselves for and be in a position to adequately handle different situations. Some scenarios included specific incidents of harassment, discriminatory behaviours or slogans, and the expected responses provided guidance to Games staff so that during the Games they could engage with spectators and other participants in a rights-sensitive approach. It also included escalation pathways across involved FAs.

The Games postponement period was important for enhancing staff understanding and mastery of the guidelines through practice with operational readiness (OPR)*2 activities. Taking into account the workload of staff in charge of venues, we focused on instilling the guidelines' basic philosophy of "disallowing human rights violations in any type of incident and resolving it through dialogue".

After the guidelines were established, we used them in a way that reflected the prohibition of non-consensual photography and other measures to prevent athlete harassment, and the IOC's approval of athletes expressing their personal views before and after events.

Because the Tokyo 2020 Games were held with almost no spectators, the majority of scenarios did not materiarise. The few incidents that occurred were successfully dealt with in accordance with the guidelines.

We shared our experience in developing the guidelines and managing human rights at an international sport and human rights seminar, as well as during a dedicated learning and exchange session with future Olympic and Paralympic Games hosts convened by the IOC.

(2) System for responding to human rights impacts during the Games

From the opening of the Olympic Village (13 July) to the closing of the Paralympic Village (8 September), we established a Human Rights Desk system inside the Sustainability Functional Area Coordination Centre that forms the core of the Sustainability FA to oversee human rights-related issues and provide support for incidents at venues and other locations. The Human Rights Desk was operated by Sustainability Department staff with the help of five lawyers who have specialised knowledge of human rights. As Tokyo 2020 had limited expertise, partnering with external specialists was effective.

This project was initially to be run with a shift system spanning the entire Games period, but with very few spectators we opted not to use the shift system on days when events had no spectators, and instead used a system where the appropriate member would respond if an incident occurred. Situations throughout the Games were shared with all members, who built expertise by discussing anticipated developments and related issues.

*1 For details on the Guidelines for Responding to Human Rights at the Venues, see *page 46* of the Update to the Sustainability Pre-Games Report.

*2 Operational Readiness (OPR) activities refers to the exercises for review and improve operation plans and enhance our operating capabilities (tabletop, simulations, venue rehearsals, etc.)

Lawyers and Tokyo 2020 staff who formed the Human Rights Desk (top). The post-Games review (bottom).

Responding to stakeholder views

There were different views and arguments within wider society for and against holding the Games during the COVID-19 pandemic, and they were held at a time when public opinion polls indicated a large amount of negative views towards running the event. In particular, we received much criticism regarding the human rights-related comments and actions of the then-Tokyo 2020 president and of some associated individuals acting in its private capacity (in relation with ceremonies). These occurred in the run-up to the Games.

Tokyo 2020 listened in earnest to these critical views and strove to explain the significance of holding the Games. We also endeavoured to provide sincere answers to the open letters we received.

Status of each goal

Key area	Status
Actions on respecting human rights and labour of all people involved with the Games	・Along with striving to secure diverse human resources from the preparation stages, we continuously provided D&I education to Games staff through training and other opportunities. The staff then practiced for Unity in Diversity as they worked at the Games. ・By collaborating with diverse stakeholders, including experts and sports organisations, we promoted D&I education and the formation of a system to respond to human rights during the Games. ・We consistently implemented various D&I elements in the Games operation, including accessibility of the venue, mobility and information.
Reasonable accommodation in working environment	・We introduced systems for modified working hours and days off so that staff could have flexible and diverse working styles to fit their duties. ・We took extensive heat-related measures and COVID-19 measures to provide staff with safe working environments. ・We managed workplaces according to labour regulations, took steps to prevent COVID-19 infection and held training on post-Games selfcare.
Implement consideration for fair business practices and actions in procurement	See Chapter 3.6 "Sustainable Sourcing"
Measures for handle problems	・We educated staff on Guidelines for Responding to Human Rights at the Venues, established a Human Rights Desk during the Games, and formed support systems for each venue. ・We responded appropriately to human rights and D&I-related incidents at venues. For incidents at related organisations, we made the necessary requests or took other appropriate steps.

Lessons and takeaways from the Games

At the Tokyo 2020 Games, we were able to share with many stakeholders*1 in the fields of sport and human rights the understanding that the success of human rights initiatives at the Games helps advance human rights in greater society. From formulating a plan to preparing for the Games, from education and training to handling incidents during the Games, and finally to passing down our legacy, the generous practical support and cooperation provided by these stakeholders made them indispensable partners for Tokyo 2020, which had limited expertise and personnel to handle a wide variety of human rights themes. For the organisers of future mega-sporting events, open management will surely become even more essential in order to increase engagement with diverse stakeholders and address all the important issues that are involved in human rights.*2

It is hoped that, after the Games, staff and volunteers will go on to become leaders in building a society where unity in diversity and inclusion are an inherent reality. There were limited opportunities to present these accomplishments with almost no spectators at the Games, but athletes, team delegation members and members of the media highly commended the Games staff's *omotenashi* hospitality.

On the other hand, there were some aspects in which unity in diversity and inclusion were not fully understood and practiced. We received heavy criticism for the inappropriate comments and behaviours of the then-Tokyo 2020 president and some associated individuals. In these cases, we took quick action to improve our governance and increased female representation to 42% on our Executive Body, as well as make amends to society.

Around the world there is increasing attention given to the links between society, sport and human rights. With athletes having approval to express their views under certain conditions whilst participating in sport, the Tokyo 2020 Games became the place to see sport and athletes fulfilling their role in furthering respect for human rights in society.

It is also essential to respect the human rights of athletes and protect them from being violated. There were problems at the Tokyo 2020 Games with athletes being harassed or slandered on social media. Also, the Tokyo 2020 Games provided a platform to put mental health, which were heavily related to the added pressure of COVID-19, the delay of the Games etc., in the global spotlight, thanks to some renowned athletes.

We hope that we can pass down our experience of holding the Tokyo 2020 Games in the midst of large societal changes related to sport and human rights, and that the initiatives that we couldn't implement or test, due to factors such as implementation with no spectators, will be further developed and addressed by future hosts in the future.

*1 For example, Human Rights, Labour and Engagement Working Group committee members, lawyers from the Guidelines for Responding to Human Rights task force, Pride House Tokyo members, members of NGOs such as the Centre for Sport and Human Rights, and human rights supervisors at FIFA and other sport organisations.

*2 Tokyo 2020 had the Human Rights Desk overseen by the Sustainability FA instead of establishing a special human rights FA. For consideration on this from a management perspective, see Section 2.1 Reorganisation of organisational structures (*page 11*).

Comment from Human Rights, Labour, Involvement and Collaboration Working Group Chairperson

Through the Human Rights, Labour, Involvement and Collaboration Working Group, I once again learned the value of open communication and the importance of national and international cooperation based on it.

Respecting human rights and diversity are themes that will never always be addressed with 100 per cent satisfaction. There is no country on Earth that is perfect in these respects — that is why it's so meaningful to communicate the shared value of working together to build a better future, and I think that is what this project is about.

And I believe that the most important thing is to work on a process together based on the trust of having shared values. I think what our society sought from the Tokyo 2020 Games was to acknowledge that there are some things we still can't overcome, and to strive for a better tomorrow with many stakeholders through a dialogue-focused process that works towards realising that vision.

In that sense, it was a true blessing to have the generous cooperation of and dialogues with Working Group members and many other stakeholders from Japan and around the world. Communicating shared values and engaging in this process with such openness allowed me to really experience the power that the Olympic and Paralympic Games have to bring many people together. The Guidelines for Responding to Human Rights at the Venues could be considered one outcome of that, and in cooperation with the IOC we would like for them to become part of the Games legacy as a resource for future host cities.

On the other hand, it was extremely unfortunate that there were few opportunities to realise these shared values together with the many planned visitors to the Games, and limited chances to verify the results of our preparations, as many events were held without spectators. We also encountered the major challenge of how to deal with cases of human rights violations, such as the harassment of participating athletes that takes place primarily over social media, and this remains something to be overcome in future Games.

I deeply hope that this report, and the documents and records of our Working Group activities, will support efforts to work towards creating a better tomorrow.

YAMAZAKI Takuya

3.5

Involvement, Cooperation and Communications (Engagement)

United in Partnership & Equality
– Inspiring Inclusive Games for Everyone

3.5 Involvement, Cooperation and Communications (Engagement)

Overview

As the involvement of various actors — not just Games affiliates — is crucial for realising a sustainable Games, Tokyo 2020 aimed to create an open, inclusive Games by engaging and partnering with a wide spectrum of stakeholders. By broadly publicising these efforts, we also worked to encourage widespread voluntary actions for creating a sustainable society.

In the process of preparing for the Games, we promoted the participation and cooperation of as many people as possible, not only through participatory projects for producing Games medals and medal podiums, but also by helping those involved in the Games better understand and practice sustainability, and by creating opportunities for education and participation of the next generation through cooperation with schools and universities. We then published the achievements of these initiatives as a "sustainable society showcase."

However, given the global COVID-19 pandemic and the need to prevent infections caused by large gatherings, the cancellation and postponement of various events following the postponement of the Games in March 2020 affected our engagement efforts. Just before the commencement of the Games, the decision was made to hold events with almost no spectators, which unfortunately forced us to make significant changes to our Games-time engagement and communications.

Under such circumstances, Tokyo 2020 had to adapt the way in which we communicated and raised awareness for the Games in the lead-up to the Games. For example, we released digital teaching materials and at-home sustainability study materials and also moved our visiting lecture program with partner universities online. We additionally utilised the extra time to further cooperation with relevant organisations, aiming to make our many initiatives a reality.

During the Games, Games-time staff set an example by practicing sustainability themselves such as urging people to separate their trash, and we created opportunities for children and students of all ages to get involved. We also proactively communicated with media and athletes despite the limitations posed by the COVID-19 pandemic.

A Games made possible through the participation of many people

Tokyo 2020 has worked to deepen understanding of sustainability and its link to the Games in and outside Japan, and embedded voluntary activities to create a sustainable society, by providing opportunities for many people to participate and share experiences.

(1) Creation of medals, podiums and the Olympic/Paralympic Village

We established projects where many people contributed to the production of these symbolic Olympic/Paralympic items and the Olympic/Paralympic Village, which in turn afforded opportunities to raise awareness about effective resource use and domestic forests and timber.

The Tokyo 2020 Medal Project*1 promoted the shift to a circular economy by manufacturing the Olympic and Paralympic medals using metals extracted from after-use consumer electronics collected across Japan, a process called urban mining.

With marine plastic pollution posing a global challenge, the Recycled Plastic Podium Project*2 fabricated the medal podiums from post-consumer plastic collected in Japan, offering a new model for using single-use plastic. The project was implemented in collaboration with P&G, a Worldwide Olympic Partner. Tokyo 2020 is promoting Podium Legacy Project, whereby the podiums used at the Games will be presented to the schools attended by the Japanese Olympians and Paralympians who competed at the Games and to local municipalities which hosted Tokyo 2020 competition venues. This will make the podiums accessible to children and future generations as a legacy of the Tokyo 2020 Games.

Operation BATON was a project to construct the Plaza area of the Olympic/Paralympic Village. The Village Plaza is an important Village facility that supports and embellishes the athletes' lives during their stay in Tokyo. The Village Plaza was created using around 40,000 pieces of Japanese timber loaned free of charge from 63 local authorities across Japan. After dismantling the facility, the timber was returned to each local government and will be used to create new local public objects (such as park benches) as a post-Games legacy.

These participatory projects presented models for circular use of metal, plastic and wood to support the future sustainability of society.

*1 Information on Tokyo 2020 Medal Project is detailed in the Sustainability Pre-Games Report *(page 127)*.

*2 Information on Recycled Plastic Podium Project is detailed in the Update to Sustainability Pre-Games Report *(page 56)*.

Medals created using metal extracted from consumer electronics

A medal podium produced from used plastic

The Olympic/Paralympic Village Plaza, constructed using timber loaned from local authorities

(2) Tokyo 2020 Diversity & Inclusion Actions

Between the Closing Ceremony of the Olympic Games to the Opening Ceremony of the Paralympic Games, Tokyo 2020 launched "Tokyo 2020 D&I Actions — Towards a society where everyone is free to live as who they are." Each person or party involved in the Games declares their own commitment actions to take a step forward toward transforming Tokyo and Japan into a truly diverse and inclusive society.

A large number of people, including athletes, volunteers and sport professionals, participated in the initiative by declaring their own actions. More action commitments have been declared even after the Games s. We hope the momentum towards a society where everyone is free to live as who they are will further increase in future.*3

*3 See Section 3.4 Human Rights, Labour and Fair Business Practices (*page 76*).

(3) Tokyo 2020 Nationwide Participation Programme

The Tokyo 2020 Nationwide Participation Programme has promoted voluntary involvement in the Tokyo 2020 Games by as many people as possible. On a dedicated online platform, organisations registered events and projects that build momentum for the Games or build post-Games legacy.

Since the launch in 2016, there were roughly 170 million participations in 160,000 registered

actions. Of these, some 22,000 actions were in direct relation to sustainability.*4 Various events were held during the Games, such as "SDG Zone at Tokyo," an online event run by the Asahi Shinbun Company and United Nations Information Centre that shared initiatives and ideas for achieving the SDGs from the angle of sport, and an event that encouraged people to post forest certification logos on social media to share the importance of forest certifications.

*4 The numbers represented accumulative participations [person-count] including multiple counts of participations by people who joined multiple initiatives..

(4) Participation of children and students

a. Promoting education through Olympics and Paralympic Games

Tokyo 2020 promoted the "Yoi Don!" (Get Set!) Tokyo 2020 Education Programme in which children, who represent our future, learned about the value of the Olympic and Paralympic Games and experienced the power of sport for future self-growth. As many as 19,005 schools (representing more than 1/3 the total number of eligible schools) were certified as Tokyo 2020 Olympic and Paralympic education schools (or Yoi Don! Schools), and the Japanese version of "I'mPOSSIBLE", a pack which uses the Paralympics as subject matter for teaching about inclusion was provided to about 36,000 schools in Japan.

Other educational projects took place across Japan: Japanese primary school children were invited to select the Tokyo 2020 mascots ; and public schools provided food ingredients to the Olympic/Paralympic Village to promote Japanese food culture.

Also as part of efforts to further promote understanding of parasport, students from a Tokyo Metropolitan high school created clubs for the club throw competitions in the Paralympic Games.

b. Allowing spectators from schools

Because of the decision to host the Tokyo 2020 Games with very limited spectators, spectators from schools were able to attend events with safety measures in place at some venues..

Approximately 4,700 visitors from schools (in Miyagi, Ibaraki and Shizuoka prefectures) watched events at the Olympic Games, and 15,700 (in Tokyo, Chiba and Saitama prefectures) at the Paralympic Games.

At special needs schools in Tokyo, children and students who were unable to watch the Games at the venues enjoyed the Games using the "barrier-free VR spectator" system just like they were there.

Other public schools in Tokyo also took part in the Tokyo 2020 Games TV Viewing and Online Exchange Project. Students could watch the Games on TV while interacting with other schools' students online, cheering on the competitions and athletes in a sense of unity.

In the "Let's deliver your voice to the athletes!" project, children from public schools in Tokyo made videos of their messages for the athletes, which were shown at the hotels where athletes took a rest. The athletes watching the videos presented the children with a video message of thanks, and cards with signed messages.

We hope that socialising with athletes and seeing athletes challenging the limits of what is possible provides children with confidence in their own potential and will help them grow into adults who champion an inclusive society.

Students attending events with their schools

c. Flower Lane Project

In the Flower Lane Project, Japanese morning glory plants grown by children were used to decorate the partition boards of the baggage check areas at the entrances of competition venues to welcome visitors. Some 300 primary and special schools from local governments in areas where venues were located provided around 33,000 potted flowers.

At the venues that were decided to hold competitions with no spectators, the morning glories were placed in locations where they could best convey the children's enthusiastic wishes to athletes and others at the Games. The heart-warming messages and illustrations delighted and encouraged many athletes, staff and others involved in the Games. They then sent the children messages of thanks in return.

We hope that planting and growing their own morning glories have become the children's memories that they have participated in the Games and that the experience will help to foster a volunteer mindset.

Colourful morning glories and heart-warming messages

Students volunteering in the information accessibility programme (Tokyo Metropolitan Gymnasium, table tennis competition)

(5) University collaboration

In June 2014, Tokyo 2020 started making partnership agreements with universities and junior colleges across Japan for many students to participate in programmes for the Games. A visiting lecture programme at partner universities held lectures on sustainability and other diverse themes. Because many universities shifted to remote learning, since fiscal year 2020 we conducted the programme in an online format, and had 205 lectures in total for over 26,000 students. In fiscal year 2021 and onward, Japan Olympic Academy keeps running the programme after the Games.

With the goal of heightening young people's awareness of an inclusive society and passing down experience to the next generation as part of the Games legacy, during the Games we ran an information accessibility programme at venues of four Olympic competitions where university students typed live event updates into a special tablet so they could be shared via text-to-speech with people who have visual impairments[*5]. This programme provided the opportunity for students to experience the importance of Unity in Diversity, and participants reflected on the experience with comments such as, "It gave me more chances to think about things in daily life from the perspective of people with impairments," and "I tried to share not only the scores, but also the situations and atmosphere that could only be experienced by actually being there."

*5 As events were held with almost no spectators, fellow students verified the updates.

Collaboration with organisations

Tokyo 2020 prepared for the Games in collaboration with diverse actors such as the Government of Japan, the Tokyo Metropolitan Government (TMG), sponsors, and other groups.

(1) Games partners and those involved in the Games

a. Sponsors Sustainability Network

We organised the Sponsors Sustainability Network in June 2017 as a forum for sponsors to collaborate and exchange ideas on sustainability, and 51 companies are involved. Through this network, we participated in and facilitated projects such as the Tokyo 2020 Trash Picking Competition (held 3 times), Sustainability Forums (held 4 times) in cooperation with the International Labour Organisation (ILO), and a project to upcycle decorations under the Look of the Games programme.

b. Reusing and recycling Games decorations through cooperation with partners

For Tokyo 2020 Games, we collaborated with TMG and Games partners to upcycle*1 certain Look of the Games decorations*2 and city decorations. The decorations were made into cloth shopping bags, lanyards and keyrings (11,400 items in total), and will be distributed to people involved in the Games, and those who will join sports promotion and environmental initiatives. Through this project, we hope to popularise the concept of upcycling and present a new model for recycling event decorations.

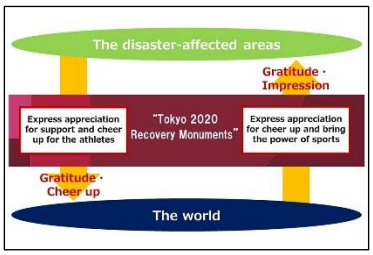
Cloth shopping bags, lanyards and keyrings made from Games decorations

In addition, in cooperation with Dow Inc. and Toppan Co., Ltd., materials with advanced recyclability, that were part of the Look of the Games decorations at the venues and in the city have been recycled into flower pots and donated to schools in Koto-ku, Tokyo and Higashimatsushima City, Miyagi Prefecture. These flower pots will contribute to the legacy of the Olympic and Paralympic Games and its promotion, as well as give children an opportunity to learn the importance of resource recycling.

The Look of the Games decorations (left) and flower pots made from recycled decorations (right)

*1 A method of reusing materials that goes beyond recycling by transforming them into products of higher quality or value

*2 Look of the Games programme: a one consistent and cohesive visual presentation of the Games in venues and in the host city and other cities in Ja-pan hosting events of the Games



The concept of the Tokyo 2020 Recovery Monuments

Priority area for wheelchair users at a Tokyo 2020 Live Site (Gotemba City)

*3 A voluntary initiative in which participating companies and organisations commit at the highest levels of leadership to building a global framework for sustainable growth through responsible, creative action. Members align their operations to 10 principles in 4 areas: human rights, labour, environment, and anti-corruption

President Hashimoto attended the Generation Equality Forum and announced Tokyo 2020 Commitment towards gender equality https://www.tokyo2020.jp/image/upload/production/ViewAttachmentPdf.action.pdf

*4 See Section 3.6 Sustainable Sourcing (*page 102*).

c. Tokyo 2020 Recovery Monuments

The Tokyo 2020 Recovery Monuments project is based on the concept of bridging a connection between the three Tohoku prefectures devastated by the 2011 Tohoku earthquake and tsunami and the world.

The monuments were made from recycled aluminium provided by Games partner LIXIL. The aluminium was used in the windows and other parts of the temporary housing in the affected areas. Students of the Tokyo University of the Arts and junior and senior high school students in Tohoku collaborated in designing the monuments and writing messages. The monuments were displayed near the Olympic Stadium throughout the Games to send messages to athletes. After the Games, they were signed by athletes and placed in the affected communities as part of the Games legacy.

IOC President Thomas Bach visits the Tokyo 2020 Recovery Monuments
Photo © Erika SHIMAMOTO, Tokyo 2020

d. Sustainability at Live Sites and public viewings

For Tokyo 2020 Live Sites, Community Live Sites and local governments who run public viewings, we used Live Site Guidelines and other information to call on operators to consider sustainability. As a result, efforts were made according to the circumstances of each venue, including securing priority spectator areas for children, the elderly and wheelchair users, providing multilingual services, separating waste, and reusing and recycling procured goods.

(2) International organisations

Tokyo 2020 partnered with international organisations to help promote awareness of sustainability through the Games and work towards solving global issues.

In cooperation with the United Nations (UN), in 2018 we joined the UN Global Compact*3 and deepened our understanding of international movements and corporate initiatives related to issues such as supply chain management and human rights due diligence.

Based on our Letter of Intent with the UN signed in the same year, we also provided information about the connections between sport and the SDGs through numerous events and other opportunities. Just before the start of the Games, we attended the Generation Equality Forum by UN Women and announced our commitment to the Sports for Generation Equality initiative.

Activities in cooperation with UN-related organisations

- Joined the UN Global Compact
- Supported achievement of the SDGs through the Tokyo 2020 Games based on a Letter of Intent with the UN
- Joined the Sports for Climate Action Framework of the United Nations Framework Convention on Climate Change (UNFCCC)
- Attended the Generation Equality Forum by UN Women
- Promoted Decent Work in partnership with the ILO*4

Sport events and organisations that garner attention through high-profile athletes, large numbers of fans and the power of the media play a significant role in encouraging awareness of and action on social issues, and it is hoped this will continue even further in the future.

Awareness and practice of sustainability by Games staff

(1) Sustainability training during Games preparation

Staff and volunteers were provided with opportunities to learn about sustainability from the initial planning stages of the Tokyo 2020 Games.

We provided continuous sustainability training for staff, and during the early Games preparation stage, the focus was on providing them with understanding of what sustainability is and why it is important.

Afterwards, we appointed sustainability administrators and coordinators in each Tokyo 2020 functional area and created structures that further sustainability within the organisation by promoting efforts based on sustainability initiatives and by sharing information regularly.

In the stage when staff began to be posted at venues, we newly selected members to be in charge of sustainability at each venue, as well as provided e-learning with even more practical content on topics such as the importance of sustainability considerations at venues, promoting reuse of goods, and appropriate separation of waste and resources. This e-learning was taken by over 2,000 people.

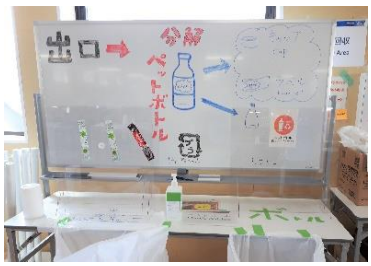
We also provided training for Games volunteers that introduce efforts that each individual can make at the Games, which was taken by around 80,000 people.

e-learning materials for Games staff

(2) Understanding and practicing sustainability during the Games

To help make Games staff aware of and understand sustainability during the Games, we encouraged them to turn off lights and separate waste by placing posters about energy saving and waste separation near light switches and waste bins. We also created waste separation pictograms and displayed them at each venue. We further strove to make sustainability more visible by taking steps such as adding information about sustainability initiatives on the body cooling sheets that were distributed to staff at venues as part of heat-related measures.

The Games staff and volunteers played an important role in the practice of sustainability, taking the initiative to promote it, such as by standing near waste bins in staff dining areas and reminding people to separate their trash, and by making easy-to-understand waste separation posters by hand.



An easy-to-understand explanation of waste separation created by volunteers at a venue

A note about the Games' sustainability concept included on a package of body cooling sheets

Communications promoting understanding and action

Aiming to make the Tokyo 2020 Games an opportunity to draw attention to the importance of sustainability and spur on new action, we strove in our initiatives to communicate the broad concept in an easy-to-understand way under the unified message of the Games' sustainability concept: "Be better, together — For the planet and the people."

(1) Communicating with Japanese and international media

a. Sustainability Information Booth in the Main Press Centre

We opened the Sustainability Information Booth in the Main Press Centre (MPC) from 1 July to 5 September 2021 to provide the media with information regarding the sustainability of the Games. In addition to information boards introducing major initiatives of the main themes, the booth exhibited items such as a disassembled mobile phone like those used to create the Games medals, a hydrogen-powered Olympic torch, and technical official uniforms that were designed in consideration of diversity.

There were a total of 1,189 visitors, including volunteers and contractors in addition to the media, who were often seen eagerly checking the information boards and exhibited items. The booth provided us with the opportunity to communicate and have many people from Japan and around the world take interest in the Games' sustainability initiatives.

The Sustainability Information Booth

Examples of exhibited items

A staff member speaks with a visitor to the booth

Briefing on toilet paper made from recycled paper plates used at the Olympic/Paralympic Village

b. Daily media briefings

In daily briefings held at the MPC during the Games, we introduced Games sustainability summaries related to issues like climate change and resource management, and ongoing initiatives such as toilet paper made from recycled paper plates used at the Olympic/Paralympic Village, as well as conveyed our gratitude towards the many people who participated in each initiative and the stakeholders who worked with us.

We also requested that the media give consideration to gender equality and pay attention to issues such as potential bias and appropriate selection of photos and vocabularies in their reporting using the International Olympic Committee's (IOC) "Portrayal Guidelines — Gender-equal, Fair and Inclusive Representation in Sport," which we translated into Japanese and made available to all media.

(2) Promoting sustainability to athletes

We created opportunities for athletes who participated in the Games to learn about our sustainability initiatives. The medal cases presented to them included a note explaining how the medals were created using after-use consumer electronics donated by the people of Japan.

The "relaxation house" at the Olympic/Paralympic Village was also supplied with electricity generated using hydrogen from renewable energy sources produced in Fukushima Prefecture, sending a message about both the possibilities of a hydrogen-based economy and the Tohoku region's recovery. We also shared information about the sustainability of the Games at a facilities within the Olympic/Paralympic Village. In the main dining hall, we posted information boards that encouraged people to help reduce food loss and waste.

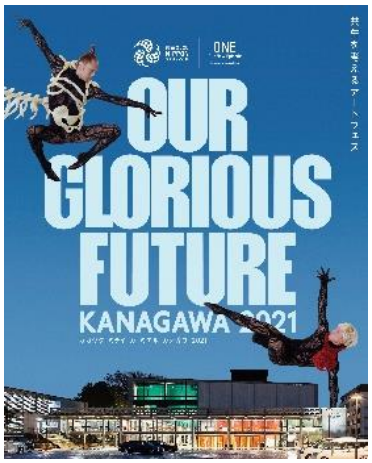
TMG gave *furoshiki* wrapping cloths, one of the world's first eco-bags, to athletes as a commemorative gift, and held workshop sessions for athletes to create a simple bag at the Japan Culture Stadium in the Village Plaza.

Cases included information on how the medals were produced through the Tokyo 2020 Medal Project

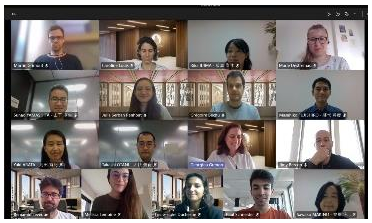
(3) Promoting an inclusive society within our culture programme

We held the Tokyo 2020 Nippon Festival from April through September 2021 as part of our official culture programme. Centred on the theme of realising an inclusive society, "ONE — Our New Episode — Presented by Japan Airlines" formed part of the festival and featured two online programmes: "MAZEKOZE Island Tour" and "Our Glorious Future — KANAGAWA 2021 —."

"MAZEKOZE Island Tour" used the power of entertainment to convey in a unique way the fascination and enjoyment of a "hotchpotch" diverse and inclusive society through a trip around nine distinctive islands. "Our Glorious Future — KANAGAWA 2021 —" was presented from the Momijigaoka Culture Zone, and shared with the world dance performances, theatre, media art, crafts and music created with the theme of an inclusive society by leading artists in the fields of culture and art who have a connection to Kanagawa Prefecture.



"MAZEKOZE Island Tour" (top) and "Our Glorious Future — KANAGAWA 2021 —" (bottom), themed on realising an inclusive society.



A meeting with Paris 2024 after the Tokyo 2020 Games

(4) Dialogue with future organising committees

During the Games, the Games Experience Programme of the IOC and the International Paralympic Committee (IPC) was conducted for future organising committees to learn about Games operation. We provided insight related to sustainability, including the importance of early-stage cooperation with pertinent departments and related stakeholders in the process of planning projects, and for the role of the Sustainability Department during the Games. After the closing, we also held a meeting with the Paris 2024 Sustainability Department to share what we have learned.

Status of each target

Key area	Status
Promote preparation and operation of the Games through collaboration and engagement of various parties	・Collaborated with Games sponsors and a wide variety of other parties to implement projects centred on material recycling and reuse of Games decorations ・Partnered with international organisations such as ILO and the UN to promote decent work and awareness on contribution to the SDGs
Inclusion of a wide range of people through talent development	・Provided continuous education and training for Games staff so that they set an example by practicing sustainability themselves at each venue during the Games ・Participated in various seminars in and outside Japan to engage in dialogue with the general public and industry organisations, and help promote mainstream awareness of sustainability
Facilitating broader involvement with the public through the projects	Implemented engagement projects such as those for fabricating the Olympic/Paralympic medals and podiums, and promoted education with schools and universities that have attracted numerous participants
Provide communication to encourage understanding and actions for consideration of sustainability	Used the media and our website to promote the sustainability initiatives of the Games and encourage awareness and behavioural changes, as it was not possible to directly communicate with spectators

Lessons and takeaways from the Games

In the preparation stage, we provided opportunities for people to feel connected with the Games and become familiar with sustainability through various types of participatory initiatives. Even after the Games, local governments throughout Japan are continuing to collect consumer electronics for recycling as they did for the Medal Project, contributing to the legacy of the Games. Although the Tokyo 2020 Games was held with almost no spectators, we hope that in future Olympic and Paralympic Games and other events, there will be initiatives where visitors can actively participate in sustainability-related actions.

The cooperation of Games partners and other stakeholders was essential to our sustainability efforts, and helped us realise a variety of projects. On the other hand, having almost no spectators meant that we weren't able to implement some initiatives, such as the waste separation guide planned in collaboration with TMG to help spectators sort their waste during competition.

There were also difficulties in promoting partnerships with diverse parties whilst respecting the brand rights and exclusivity arrangements of Games partners. For future large-scale events, there will be a need to create a framework that enables both sponsorship and the participation of diverse parties, such as the Tokyo 2020 Nationwide Participation Programme*1.

In relation to human resources, as we transitioned to a system centred on the venues and increased our personnel numbers, ensuring widespread understanding of sustainability became an issue. In addition to the training offered from the Games preparation stage, during Games-time we took steps on-site such as having the Sustainability Department present briefings on waste separation at venues and biodiversity measures. In large-scale events where the organisational system changes greatly, it is important to incorporate suitable education and training into each phase before they actually occur. In order to promote sustainability throughout the entire Games, it's also important to share awareness and encourage relevant groups such as subcontractors and broadcasters.

Communicating the broad concept of sustainability in a way that is easy to understand was something we focused on from the preparation stage. To do so, we communicated around special initiatives — such as the creation of medals and medal podiums — as a "sustainable society showcase" to create opportunities for people to better understand the sustainability of the Games. We also considered promoting our sustainability initiatives directly before the Games commenced, but it was difficult to create such opportunities at a time when there was rising concern about holding the Games in the midst of the COVID-19 pandemic. For future large-scale events, strategic communications will be essential in boosting interest in sustainability.

*1 See "A Games made possible through the participation of many people" (3) ″ Tokyo 2020 Nationwide Participation Programme. (*Page 85*)

3.6

Sustainable Sourcing

3.6 Sustainable Sourcing

Overview

The Tokyo 2020 Organising Committee developed and utilised the Sustainable Sourcing Code in order to promote consideration of environmental conservation, human rights, responsible labour practices and other sustainability factors in sourcing for the preparation and operation of the Tokyo 2020 Games. We used responsible sourcing standards for some items primarily related to construction, food and beverage, printing, or COVID-19 prevention measures for the Games – with a view for instance to ensure that sustainable timber, paper, agricultural, livestock and fishery products, and palm oil would be used.

We also partnered with the International Labour Organization (ILO) to further decent work, and it was a major achievement to successfully develop a case study collection and a handbook that could be used by partner companies and beyond.

We additionally operated a grievance mechanism for Sourcing Code non-compliance that received reports on a wide variety of issues.

Finally, although it cannot be definitively declared an effect of the Games, companies have made steady progress in sustainable sourcing and the use of various certification schemes — uncommon before the Sourcing Code was established — is becoming more widespread. Support of these movements by consumers will in turn lead to wider efforts by companies, helping create a more sustainable society.

Developing and implementing the Sourcing Code

(1) Developing the Sourcing Code

The aim of the Sourcing Code was to make companies' involvement with the Games an opportunity to raise their awareness of sustainability issues and encourage them to act. We thought that doing so through the Games would help sustainability initiatives take root in Japanese society and become an important legacy.

Yet sustainable sourcing is a new concept in Japan, and depending on the viewpoint there are extremely wide-ranging ideas of what is "sustainable" and why it is important. Globally, sustainability-related issues and the progress in addressing those issues including the use of certification systems also varies vary from country to country, region and industry sector, so rather than copy the sourcing code of a previous Olympic and Paralympic Games, we decided to develop one specifically for the Tokyo 2020 Games.

In devising the Sourcing Code we put value in involving a wide variety of stakeholders, and held numerous discussions in working groups*1 formed of specialists from various sectors including the environment, human rights and corporate social responsibility. Understanding the importance of different opinions, we also gathered views from the public (5 times)*2, as well as inivited NGOs, industry groups and other stakeholders to the working groups*3. The extremely diverse opinions we received made it a challenging endeavour, but we did our best to reflect them in the code as much as possible. We also provided official updates to the public for almost the entire development process, resulting in higher transparency compared to previous Games.

Despite all this, there was criticism that the Sourcing Code was insufficient. However, we

*1 Totally 31 working group meetings were convened, including after establishing the sourcing code.

*2 Approximately 1,200 comments were received in total.

*3 Approximately 60 parties in total were invited to the working groups.

couldn't expect sustainable sourcing to become widespread if it could only be practiced by a small number of companies, so we focused on encouraging the efforts of as many businesses as possible — including the small and medium enterprises that make up the largest proportion of Japan's industry. We now think we should have put more effort into communicating this to help corporate and the broader public better understand our intent.

(2) Implementing the Sourcing Code

After establishing the sourcing code, we took more than 50 opportunities such as workshops of industry groups and symposiums on sustainability to disseminate the concept and content of the sourcing code. We created commentaries that summarised the background and concepts of each item of the code, and examples of specific initiatives, as well as FAQs so that interested businesses can refer to them.

Some 7,500 procurement contracts were made by Tokyo 2020 through September 2021, including the period before the Sourcing Code was developed. There were also as many as 127 licensee companies. By applying the Sourcing Code to procurement and licensing contracts, we believe that we were able to promote understanding and engagement in sustainability in an extremely large number of businesses, including those that weren't involved in the resulting sourcing.

The Sourcing Code could not have been implemented by the Sustainability FA alone, and the cooperation of related FAs[*1] was vital. As it was important for each FA that procured goods and services to understand what sustainable sourcing actually means, we repeatedly worked with them to educate and build awareness. The Procurement FA also provided advice on sustainability considerations as necessary to the FAs responsible for each procurement project.

With the further aim of encouraging suppliers and licensees to evaluate their own efforts and improve them, we requested them to create checklists. We have reviewed the checklists of more than 1,000 companies and engaged in individual interviews with some of them, in an effort to understand the sustainability initiatives of our suppliers and licensees. As such diverse goods and services were sourced from so many different businesses in the limited time leading up to the Games, we weren't able to communicate frequently about sustainability with each entity, however strove to pre-emptively prevent problems by inquiring or alerting suppliers and licensees individually, particularly on compliance with labour laws and regulations.

One challenge that has been identified was the difficulty in ascertaining the situation at businesses that were secondary suppliers or further up the supply chain. It is extremely difficult, if not impossible, to ensure that there are absolutely no problems anywhere throughout a global supply chain. The Sourcing Code did not go as far as to demand that suppliers and licensees reduce their supply chain risks to zero, but businesses/organisations undertaking similar work in the future may have room to consider stronger demands for suppliers and licensees, having continuous opportunities of engagement in mid-to-long term business relationship. In addition, it would be valuable to create guidelines for each type of industry that considers supply chain characteristics (such as difficulty of traceability and risks) to make it easier for enterprises to perform due diligence.

*1 "FAs" means 52 Functional Areas responsible to oversee a variety of functions and operations required in the delivery of the Games. For more information on Sustainability FA, see "2.1 Reorganisation of organisational structures" (*page 11*) and the Sustainability Pre-Games Report.

Sustainable sourcing of timber, paper, agricultural, livestock and fishery products, and palm oil

Within the Sourcing Code, we established individual standards for timber, paper, agricultural, livestock and fishery products, and palm oil in order to source materials that are the most sustainable from the production stages. In doing so, we also sought assistance from academic experts, governmental bodies, and industry and consumer organisations with expertise in the production and trade of each type of good. We also strove to obtain the latest information, as there has been a variety of developments in certification standards and initiatives in producer countries.

The sourcing codes established in this multi-stakeholder process not only set forth requirements for sustainability, but also utilised various certification systems as tools to achieve these requirements. Many materials and goods were procured using these certifications in the actual sourcing that took place for the Tokyo 2020 Games.

Some certifications were not widely used when the Sourcing Code was established, but they have been steadily adopted over the past few years (although the impact the Games had on this is difficult to evaluate with certainty). There has been a considerable increase in the number of products that can now be found in stores bearing fishery eco-label certifications, and packages made using certified forest paper. On the other hand, some companies cited challenges like, "There are no fishery eco-label-certified bulk products for commercial use, and it takes time and effort to open all the individually-packaged products sold at retail," and "There is not much certified palm oil supplied to Japan and only around 2 per cent is certified by the Roundtable on Sustainable Palm Oil (RSPO). In addition, distinguishing uncertified palm oil and palm oil certified as Identity Preserved*1 or Segregated*2 is costly." These issues need to be solved individually in order for sustainable products and services to become more common.

*1 Identity Preserved Supply Chain Model, Sustainable palm oil from a single identifiable certified source is kept separately from ordinary palm oil throughout supply chain.

*2 Segregated Supply Chain Model : Sustainable palm oil from different certified sources is kept separate from ordinary palm oil throughout supply chain.

(1) Timber sourcing

While the Sustainable Sourcing Code for Timber was established in June 2016 through the discussion in a working group. Even after the establishment of the code, we received various opinions including non-use request of tropical timber, from stakeholders such as NGOs that were highly interested in rainforest conservation, while timber issues often drew media attention. In addition, some members of the working group recommended that the sourcing standard be improved. We took a review process to improve it in accordance with the concept of PDCA (Plan-Do-Check-Act). Concretely, to capture the latest situation around timber, particularly tropical timber, we invited environmental NGOs, research institutes, certification scheme owners, timber importing companies, a domestic plywood manufactures association and a concrete-formwork contractors association to the WG. Through this engagement process, risks were raised e.g. about corruption in producing countries, indigenous peoples' rights, biodiversity, and loss of forest area through the development of oil palm plantations. There was an opinion that not only the use of certifications, but also additional due diligence is needed. Considering these opinions, we revised the code in January 2019 to restrict the use of timber derived from conversion of forest to non-forest area such as farmland with the intention of contributing to curbing deforestation, as well as to recommend additional efforts to reduce sustainability-related risk. Meanwhile, through this process, we also recognised that stakeholders are addressing sustainable forest-

Ariake Gymnastic Centre

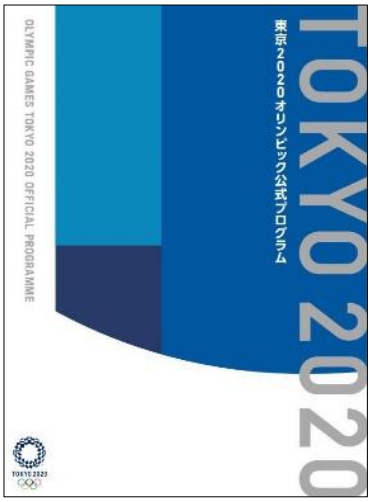
management/timber-sourcing in various approaches such as the development of timber legality and sustainability verification systems by the governments of timber-producing countries, and due diligence efforts by companies.

Construction companies were sometimes directly briefed in order to have them understand the code correctly. We strove to explain the particulars in a straightforward way, including forest certifications from the Forest Stewardship Council (FSC®), Programme for the Endorsement of Forest Certification (PEFC) and Sustainable Green Ecosystem Council (SGEC) to avoid later problems with code details and documentation processes among companies. Some companies had no experience in or knowledge of sustainability, and we realised how important it was to begin with a background explanation of why sustainability considerations are necessary.

For information on the results of procurement using the sourcing code, see *pages 143-144*. We found that certified timber was often used, while some timber was sourced through verification efforts by relevant companies according to the code. Some companies we met said they struggled to procure timber that meet the code due to the limited supply routes for certified timber. We thus see it necessary to have more diverse supply routes for certified-sustainable timber, and for information on it to be easier to obtain.

Initiatives in sourcing of sustainable timber has increased steadily, primarily among Japanese companies that import timber or construct residential homes. Some companies established their own policies of not sourcing timber that was harvested in the process of converting forests to agricultural land. Primarily among real estate developers and construction companies, there has also been a trend to source sustainable concrete formwork plywood, and a construction company has even requested their own business partners use plywood that complies with the Tokyo 2020 Games' Sustainable Sourcing Code for Timber. We hope that this trend continues further.

A leaflet on transportation regulations during the Games



Official Programme

(2) Paper sourcing

Items that fall under the Sustainable Sourcing Code for Paper include printed materials such as various posters, fliers and leaflets about transportation during the Games, and spectator tickets. The majority of these used certified forest paper (for details, see *page 145*). Only a limited number of spectator tickets were produced due to the decision to hold the majority of events with very few spectators, but we did include certification logos on the ones that were issued with the aim of raising purchasers' awareness. Certified forest paper was also used for the Official Programmes and other official publications (totally 12 items) that were sold as Games merchandise.

As for paper towels often used with alcohol for disinfection against COVID-19 and toilet paper in the venues, most of them were made from recycled pulp.

We additionally worked to procure sustainable paper for a number of other uses, including certified forest paper for staff meal vouchers and notebooks for health management used by staff for daily health check.

When ordering the printing of posters and other materials, in addition to the Sustainable Sourcing Code for Paper, we also requested that printers use paper that meets the Tokyo Metropolitan Government's Green Purchasing Guidelines for ratio of recycled paper mix. There were however some cases where it was difficult to source paper that met those standards. Because the supply of used paper is unstable in Japan, manufacturers have begun to stop producing mixed pulp paper for printing, or produce it only to order, so in such cases we used certified forest paper without a mix of recycled paper. It should be recognised that there may be cases where it is difficult to procure paper that satisfies particular requirements.

It has become more common to see logos of FSC® and PEFC on a variety of products in daily life as private companies have made progressive efforts to source sustainable paper. Yet many consumers likely don't know the meaning of these logos, and we see it necessary to not only display them on products, but to also further promote these certification systems through the media and partnerships with retailers.

(3) Agricultural, livestock and fishery product sourcing

Because so many different ingredients are used in providing food and beverages, their sourcing can impact a wide range of producers. Aiming to make sustainable production initiatives more widespread in the agricultural, livestock and fishery industries, in March 2017 we established the Sustainable Sourcing Codes for Agricultural, Livestock and Fishery Products. At that time there were still few producers in Japan that had obtained GAP or fishery eco-label certifications, and these sourcing codes served as an opportunity for politically-backed promotion of the certifications by the national and prefectural governments, resulting in a steady increase in producer certification that made it possible to procure domestic agricultural, livestock and fishery products that satisfied the Sourcing Codes by the time of the Tokyo 2020 Games.

During the Games we provided food and beverage services at locations such as the Olympic/Paralympic Village and competition venues. There were, for example, around 870,000 meals provided at the main dining hall in the Olympic/Paralympic Village, which has the largest capacity. Throughout the operating periods of both the Olympic and Paralympic village some 1.28 million meals were served, and the amount of fresh food used to make them totalled approximately 387 tonnes of rice, vegetables and fruit, 117 tonnes of meat and 43 tonnes of seafood.

Food and beverage services in the Olympic/Paralympic Village

	Main dining hall	Casual dining	Grab & Go	Field cast Break&dining
Type of service	・Facility serving food and beverages to athletes preparing for their competition ・Around 700 types of meals served on an eight-day rotation	・Facility where athletes could relax and enjoy Japanese meals ・Served Japanese dishes created using ingredients from around the country including Tokyo Metropolitan area and disaster-affected areas by the Great East Japan Earthquake	・Four areas in the residential buildings ・Provided light take-away meals for athletes when they were short on time	・Facility serving food and beverages to volunteers and contractors ・Provided set menu meals
Primary users	Athletes and team officials	Athletes and team officials	Athletes and team officials	Games staff
Meals provided during the Games	Approx. 870,000	Approx. 60,000	Approx. 50,000	Approx. 300,000

As the enormous scale of the food and beverage services at the Olympic/Paralympic Village required both large volumes and wide varieties of ingredients, food and beverage suppliers took time working to procure goods based on the Sourcing Code.

Yet when sourcing ingredients, there are other necessary considerations aside from sustainability, including nutrition, hygiene, dietary customs (such as Halal), volume and price, and it is not easy to satisfy so many different conditions. With all that in mind, while it was difficult to find some ingredients that were certified, particularly those that needed to be sourced from other countries outside Japan, the majority of what we procured had GAP, fishery eco-label or other certifications (for details see *pages 145-146*). Of these ingredients, some were even produced organically or through the participation of people with impairments. Ingredients produced in Tokyo Metropolitan area and areas affected by the Great East Japan Earthquake were used daily in the casual dining. At competition venues we also provided diverse food and beverage options for athletes and staff, some of which displayed GAP, fishery eco-labels through contractors' efforts

Whenever possible we sourced ingredients produced in Japan, including processed foods such as milk and liquid eggs, and as a result all the fresh ingredients used for the Japanese meals in the casual dining were produced in Japan. For meals at the main dining hall, we strove to consider suitable growing regions, athletes' dietary customs and nutritional needs, and reliable supply in a large quantity, and we sourced ingredients produced outside of Japan when they were difficult to obtain domestically.

Lunch boxes containing certified seafood

To further promote sustainable production of agricultural, livestock and fishery products as part of the Games legacy, in addition to the Games-related sourcing initiatives, responding to the request from Japan's Cabinet Secretariat, a number of cafeterias of the public offices and companies held events where meals were served utilising certified ingredients from disaster-affected areas.

In addition, many agricultural high schools and agricultural colleges obtained GAP certifications toward the Games. We believe that the younger generations can be catalysts to spread sustainable agriculture through using the knowledge and experience of sustainability gained through this initiative.

(4) Palm oil sourcing

We developed the Sourcing Code for the Promotion of Sustainable Palm Oil to address the procurement of palm oil (including palm kernel oil), and raise awareness about the topic since concerns amongst Japanese businesses and consumers about palm oil such as forest development and labour management at production site are low. Further to note is that palm oil is unique not only because it has a wide variety of applications, from processed foods to soaps, but because the oil from many plantations is often combined before shipping, and further multi-stage processing and distribution makes it very difficult to track and trace where crude palm oil actually comes from. Bearing this in mind, we formulated the Sourcing Code in a way that requests suppliers try as hard as possible to source products that meet standards.

In practice, many products are manufactured using several kinds of palm oil-derived raw ingredients, and it is not easy to procure items, especially processed foods, in which all of these ingredients have been certified. Nevertheless, on a company level, an increasing numbers of businesses are now setting medium- to long-term goals to engage in sustainable sourcing, and the manufacturers of many processed foods procured for the Games are very active in sourcing sustainable palm oil and steadily enhancing the use of certified oil. (for details see *page 147*)

Based on this result, for companies that are going to procure processed foods paying attention to the sustainability of palm oil, as a transitional and more realistic approach, it may be more effective to set procurement evaluation standards on a manufacturer level rather than an individual product level, focusing the proportion of certified oil that a manufacturer uses, to support certified

oil sourcing and improve the sustainability of production sites.

Another challenge is a potential lack of understanding of palm oil and certification schemes such as Roundtable on Sustainable Palm Oil (RSPO) among companies that distribute and use palm oil products. For example, while most of the hand soap procured for the Games met the sourcing standard since certified products are relatively available in Japan, there was a case where the contractor directly responsible for purchasing hand soap for toilets mistook a company's RSPO supply chain certification for product certification and procured uncertified products. To facilitate correct understanding of sustainable palm oil sourcing and its complex certification systems, we see it important to continuously build awareness among enterprises.

Wider efforts to source sustainable palm oil are now being made by Japanese companies, with some establishing their own sourcing policies or promoting their initiatives more visibly through their websites and other avenues. We hope that this movement continues to grow.

Partnership with the ILO

Tokyo 2020 signed a memorandum with the International Labour Organization (ILO) to promote decent work, and the two organisations developed activities on this to contribute to the advancement of corporate socially responsible labour practices throughout the supply chains.

Respect for labour rights and decent work are important factors for realising a sustainable society. It is hoped that decent work will take root in society with the progress of the National Action Plan on Business and Human Rights set forth in October 2020.

*1 For more information on the results of our partnership with the ILO, see the Sustainability Progress Report, the Sustainability Pre-Games Report and the Update to the Sustainability Pre-Games Report.

Video message from the ILO

The main activities in partnership with the ILO were as follows.*1

1) Awareness-raising activities through the Sustainability Forums

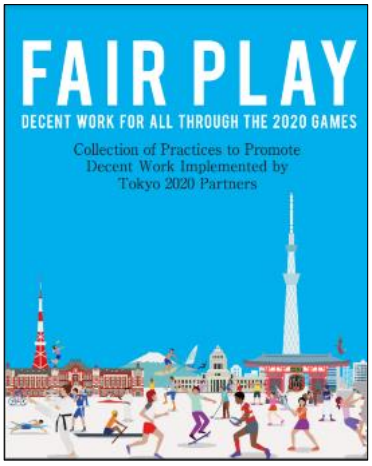
We held a total of four Sustainability Forums to raise awareness about corporate socially responsible labour practices, where sponsor companies were also involved to share good practices on decent work. Approximately 580 people mainly from companies and labour unions participated in the Forums.

See the following websites for details on each Forum.

https://www.ilo.org/tokyo/events-and-meetings/WCMS_574163/lang--en/index.htm
https://www.ilo.org/tokyo/information/pr/WCMS_720032/lang--en/index.htm
https://www.ilo.org/tokyo/events-and-meetings/WCMS_741240/lang--en/index.htm
https://www.ilo.org/tokyo/WCMS_821424/lang--en/index.htm

[Case study: Fourth Tokyo 2020-ILO Sustainability Forum]
On 28 May 2021, Tokyo 2020 and the ILO co-organised the 4th Tokyo 2020-ILO Sustainability Forum "Towards a society where everyone shines by advancing decent work" as an online forum due to COVID-19.

In this forum, which was attended by approximately 170 people, we summarised the collaboration activities by Tokyo 2020 and the ILO. In addition, we took this opportunity to present Tokyo 2020's initiatives on sustainability, gender equality and D&I, share sponsor companies' practices on decent work, and share expectations from stakeholders to businesses to realise decent work.



Case study collection for decent work

2) Collection and publication of case studies of corporate efforts

We have created "Fair Play — Decent Work for All through the Tokyo 2020 Games: Collection of Practices to Promote Decent Work Implemented by Tokyo 2020 Partners" that features initiatives

International Labour Standards and Sustainable Sourcing Handbook

by 14 sponsor companies to promote decent work (December 2019).
https://www.ilo.org/tokyo/information/publications/WCMS_794837/lang--en/index.htm

3) Technical support for companies to practice socially responsible labour practices

In December 2019 we created the "International Labour Standards and Sustainable Sourcing Handbook" to promote understanding and practice of international labour standards and sustainable sourcing.
https://www.ilo.org/tokyo/information/publications/WCMS_735666/lang--ja/index.htm
(Japanese)

4) Dissemination of tools to support companies in understanding and implementing socially responsible labour practices

On the Tokyo 2020 official website, we made a page to introduce ILO materials and tools such as e-learning that help companies address labour issues, including tools on how to respond to COVID-19.

Grievance Mechanism

(1) Status of the reports received in the grievance mechanism

Tokyo 2020 established a grievance mechanism to respond to non-compliance with the Sourcing Code for products and services procured by Tokyo 2020 as well as licensed products. As of the end of November 2021, we received 18 reports through e-mail or by post. Please see the Appendices (*pages 147-150*) for an overview of the contents and responses by Tokyo 2020 for all reports.

Reports received and their processing (as of 30 November 2021)

Method	Language	Informant type	Processing time (M=month)
e-mail only: 14 Post only: 3 e-mail and post: 1	Japanese: 13 English: 5 Other languages: 0	Private individual: 3 Organisation: 15	Less than 1M: 6 1 to 3Ms: 6 More than 3Ms: 2 (For reports processed as on 30 Nov. 2021)

(2) Efforts and challenges on the grievance mechanism

Whilst the scope of this grievance mechanism is not only human rights issues, we referred to the "effectiveness criteria for non-judicial grievance mechanisms"[*1] of the United Nations Guiding Principles on Business and Human Rights when developing the mechanism. The following is a summary of our efforts and challenges faced in the implementation of this mechanism for each item of the criteria.

(i) Legitimate

・We developed the grievance mechanism through discussions in the Sustainable Sourcing Working Group that comprised experts on labour, human rights and other fields.
・We outsourced some functions of the mechanism to a consulting company with necessary capacity to conduct the task including field investigations.

*1 Please refer to the section 31 (*page 26*) of the document below for "effectiveness criteria for non-judicial grievance mechanisms"
https://www.mofa.go.jp/mofaj/files/100165917.pdf

・We created and officially announced operational standards as basic rules for responding to reports. Nevertheless, we did sometimes struggle with how to proceed in an effective way because of the wide variety of goods and services included, the diverse supply chain stages and locations, as well as the different identified issues and related companies that were in the reports we received.

・We received advice from an Advisory Panel*2 composed of experts in efforts to ensure fairness and neutrality. The panel's expert and impartial advice was beneficial in cases such as those where we were unsure to what extent the reported issues should be confirmed. There were sometimes several panel members, and whilst this enriched discussions with diverse viewpoints, it was also difficult to ensure all members had the same understanding of the Sourcing Code regulations and grievance mechanism framework.

*2 Advisory Panel was established for each reported case within the scope of the mechanism. Members for each Panel were appointed from the candidate list that included experts in labour, human rights, environment, supply-chain management and sustainable consumption.

(ii) Accessible

・To enhance accessibility, it is important to make the mechanism known in the first place. In addition to posting it on the website, we used various opportunities and networks to disseminate it. As a result, the grievance mechanism seems to have gradually become known mainly among NGOs and labour unions.

・When holding briefings for contractors, we also requested that they make their workers and subcontractors aware of the grievance mechanism. Additionally at the Games-time, we promoted the mechanism through posters in Japanese and English placed in staff dining and break areas. There was a case where someone made a report after seeing one of these posters.

・Japanese and English were the main languages, but we were prepared to provide responses in as many other languages as possible to make the mechanism easier for more people to use. We also created fliers in various languages.

・To protect informants from retaliation, upon request their anonymity was respected as we investigated the report with the company or other party involved.

・We initially received a large number of reports about issues outside of the scope of the grievance mechanism, such as goods and services not procured by Tokyo 2020. This indicated a potential lack of understanding of the mechanism, so we created materials that explained, in concise and straightforward language, what was included in the scope of the mechanism and what kind of information was needed to proceed with an investigation. In order to have the necessary information inputted accurately, however, we should have simplified the reporting form and its explanation. The reporting form was developed on the premise of a report from someone, such as a worker, who has been negatively affected. Because the actual reports were often made by third parties, we should have created a special form for third-party reports.

・Unlike the grievance mechanisms used for certification systems (such as FSC® and RSPO) at production sites of primary products, or by development projects in developing countries, the Tokyo 2020 grievance mechanism was located at the very bottom of the supply chain. Responding to reports of problems that occur several steps up in the supply chain can therefore take quite some time. Our grievance mechanism was not a system for compulsory investigation, and was limited as a non-state-based, non-judicial mechanism. These aspects should have been indicated to informants.

・Some reports were made after the actual sourcing was complete and time had elapsed. The more time that passed, the more difficult it become to confirm the facts, and we should have made it known that timely reporting is important in order to be able to solve issues promptly.

(iii) Predictable

・We developed the operational standards for the mechanism that specifies detailed processes and standard processing periods, and posted them on the website. We also updated information on the content of the reports we received and the status of our response on a monthly basis.

・The quality and quantity of information and assertions in the reports differed, and it took time and effort to understand them and ascertain the situations. There were instances when communication with informants and checking within the department took time. This led to many cases where we couldn't meet the standard processing times indicated in the operational standards.

(iv) Equitable

・The grievance mechanism had an Advisory Panel that was comprised of expert(s) and was tasked to provide advice from a fair and neutral standpoint in processing reports within the scope of the mechanism.

(v) Transparent

・We told informants about the results of our responses either in writing or in person. We also informed the general public of the reports received and our responses through our website, in reports to the Sustainable Sourcing Working Group, and in the Sustainability Reports.

・To respect the confidentiality of the information provided by the companies in question, we were unable to disclose some information to informants, and it was sometimes difficult to provide an explanation that they were satisfied with. We should have more clearly indicated this and other aspects that are difficult with this mechanism.

(vi) Rights-compatible

・We set up a grievance mechanism as part of our efforts to implement the Sourcing Code formulated with reference to international human rights standards.

(vii) A source of continuous learning

・The operational status of the mechanism was reported to the Sustainable Sourcing Working Group to discuss more effective and efficient operations. For example, responding to comments from the Working Group that the grievance list and individual result reports posted on the website were not informative enough to precisely understand the responses by Tokyo 2020, we improved them providing more details.

・As we sometimes heard opinions such as "The system is difficult to understand" or "The reporting form is too complicated to fill out", we developed a new informative document and posted it on the website to make the grievance mechanism easier to understand.

(viii) Based on engagement and dialogue

・In developing the mechanism, we discussed it in the Working Group, which is a multi-stakeholder process including labour unions and human rights NGOs. We also solicited public comments to reflect a wide range of opinions.

・We emphasised dialogue between the parties concerned in this grievance mechanism.

(3) Mainstreaming grievance mechanisms

The activities of any organisation have the potential to negatively affect people and the environment, and it is hoped that grievance mechanisms become common not just among companies, but in a variety of organisations.

With increasing interest in human rights and the UN SDGs, the number of private businesses that have established grievance mechanisms is steadily increasing globally, with some publicly announcing the scope of their system and details of their protocol. We think that if more companies set examples like this, they will become valuable references for other companies considering implementing their own mechanisms. At the same time, with potential issues arising related to expertise or cost for companies, further research is also being done into collective grievance mechanisms shared by multiple companies.

On an international level, grievance mechanisms still have room for improvement, and we hope that sharing examples of implementation and further discussion on the system will help them become more widespread in the future.

Response to stakeholder opinions

We received opinions from stakeholders interested in topics related to sustainable sourcing. Please refer to the Appendices (*pages 150-151*) for examples of those opinions received after the decision to postpone the Games and our thoughts on the issues.

Lessons and takeaways from the Games

Tokyo 2020 established and implemented the Sustainable Sourcing Code in the hopes that it would create positive change within the supply chain that has a beneficial impact on society. Yet in actual sourcing, product quality, price and reliable supply are also important, and our greatest challenge was trying to figure out how to balance these aspects with sustainability.

In developing the Sustainable Sourcing Code we tried to involve a wide variety of stakeholders and ensure transparency through publishing the minutes of the discussions, as there are extremely wide-ranging ideas of what is "sustainable" and why it is important. On the other hand, our intent to encourage the efforts of as many businesses as possible — including the small and medium enterprises — through the Sourcing Code did not seem to be acknowledged sufficiently. We now think we should have put more effort into communicating to help broader public better understand our intent.

There are mixed situations among businesses on how well they understand sustainability, and careful explanation and communication are needed. It may be better to begin with a background explanation of why sustainability considerations are necessary, as some companies have no experience in or knowledge of sustainability. It would be valuable if more guidelines and tools to help businesses conduct due-diligence are developed, and more efforts to promote understanding on various certifications from businesses as well as consumers would be useful.

As for the grievance mechanism, we operated it referring to the UN Guiding Principles on Business and Human Rights. Yet, in responding to actual reports, we did sometimes struggle with how to proceed in an effective way because of the wide variety of goods and services, identified issues and related companies that were in the reports, which led to many cases where we took longer than we expected. While we made a new informative material to help informants smoothly fill out the reporting form, the form itself could be more user-friendly by using simpler wordings.

In addition, depending on the contents of reports, our grievance mechanism may be unable to effectively address the problems on the ground, because long and complex supply-chains make it difficult to verify the problems. We should have indicated such characteristic of our grievance mechanism.

As a positive lesson, taking expert and impartial advice from Advisory Panel was beneficial in the process of the mechanism. We updated monthly the progress and results of our responses to the reports on our website, from the perspective of transparency.

It proved impossible for Tokyo 2020 to identify and evaluate how much of a consequential societal impact Games' sustainable sourcing initiatives actually had.* Despite this, in listening to the opinions of industry groups after the Games, we received some comments such as "It is felt that the discussions and actions on sustainable sourcing at the Tokyo 2020 Games raised awareness of companies regarding sustainable materials." There have been many positive changes within Japan, such as a greater uptake of sustainability-related certifications and the launch of a platform to solve issues in the employment of migrant workers. We hope that these movements continue to grow in the future.

Consumers also play a vital role in making positive change happen. It will become increasingly important in the future for consumers to choose, and request, products and services from a sustainability standpoint in order to encourage corporate initiatives that contribute towards building a sustainable society.

* According to a questionnaire survey on the formulation and operation of sustainable procurement policies conducted by Green Purchasing Network for large domestic companies, a little less than 20% of the companies answered that they referred to Tokyo 2020's Sourcing Code when they developed or revised their own procurement policies.

Comment from Sustainable Sourcing Working Group Chairperson

Congratulations on the success of the Tokyo 2020 Games. It was surely much more difficult than anticipated due to the unprecedented COVID-19 pandemic. I would like to honour and deeply thank all those who contributed to the success of the Games.

It was summer 2016 when I became Chairperson of the Sustainable Sourcing Working Group (WG), taking over from former Chairperson YOKOTA Yozo. I had never even dreamed that I would someday be involved in the Tokyo 2020 Games, and resolved to dedicate myself to this work.

Tokyo 2020 Organising Committee worked earnestly on publishing minutes for greater transparency and inviting representatives from civil society to discussions in order to hear the views of diverse stakeholders. Tokyo 2020 also actively collaborated with international organisations, taking the initiative to sign a Letter of Intent with the United Nations to support achievement of the SDGs, and a Memorandum of Understanding with the ILO to promote decent work.

Not everything was perfect, of course, and Tokyo 2020 sometimes got criticised by NGOs. Nevertheless, I believe we could see positive achievements including lively discussions in this WG, lots of outputs such as the Sourcing Code, pioneering trial to the operation of a grievance mechanism, as well as the publication of this Post-Games Report that summarises Tokyo 2020's efforts.

Whilst there is a view that the water in the cup is "half empty", but I would like to positively appreciate the progress made by saying "half full." And I think that society as a whole should think about how to increase the water in the cup from here, and make efforts for that.

I hope that developing and implementing the Sustainable Sourcing Code at the Tokyo 2020

Games provided an opportunity to transform Japan toward an inclusive society with respect for diversity as a human rights legacy. Some human rights issues garnered attention in a negative sense, but I believe this also encouraged many people to think about gender equality and diversity. I hope the Tokyo 2020 Games provides the impetus for sustainability that will lead Japan to a truly diverse and inclusive society where no one will be left behind.

AKIZUKI Hiroko

3.7
Venue Development

3.7 Venue Development

Overview

The Tokyo 2020 Games venues are divided in three types: existing venues, those constructed as a new legacy, and temporary venues erected solely for the Games.

Venue development held the greatest risks of environmental impact and use of resources to affect the overall sustainability of the Tokyo 2020 Games. We gave maximum consideration to sustainability at each stage, from the planning of venue construction to post-Games dismantlement. In addition to complying with related laws and regulations, we took into account initiatives included in operational plans and the plans of the local governments in areas where each venue is located, focusing not only on environmental efforts — such as energy saving, resource management and environmental preservation — but also on various other initiatives such as ensuring building accessibility and occupational health and safety at construction sites.

Whilst the Games was postponed, for safety reasons we temporarily removed temporary facilities and other structures.

*1 Overlays are structures and equipment added to the Games venues temporarily for the duration of the Games for operational purposes. They include prefabricated structures, tents and broadcast lighting.

*2 Includes the Olympic Stadium and Musashino Forest Sport Plaza, which were classified as "plans" in the Candidature File.

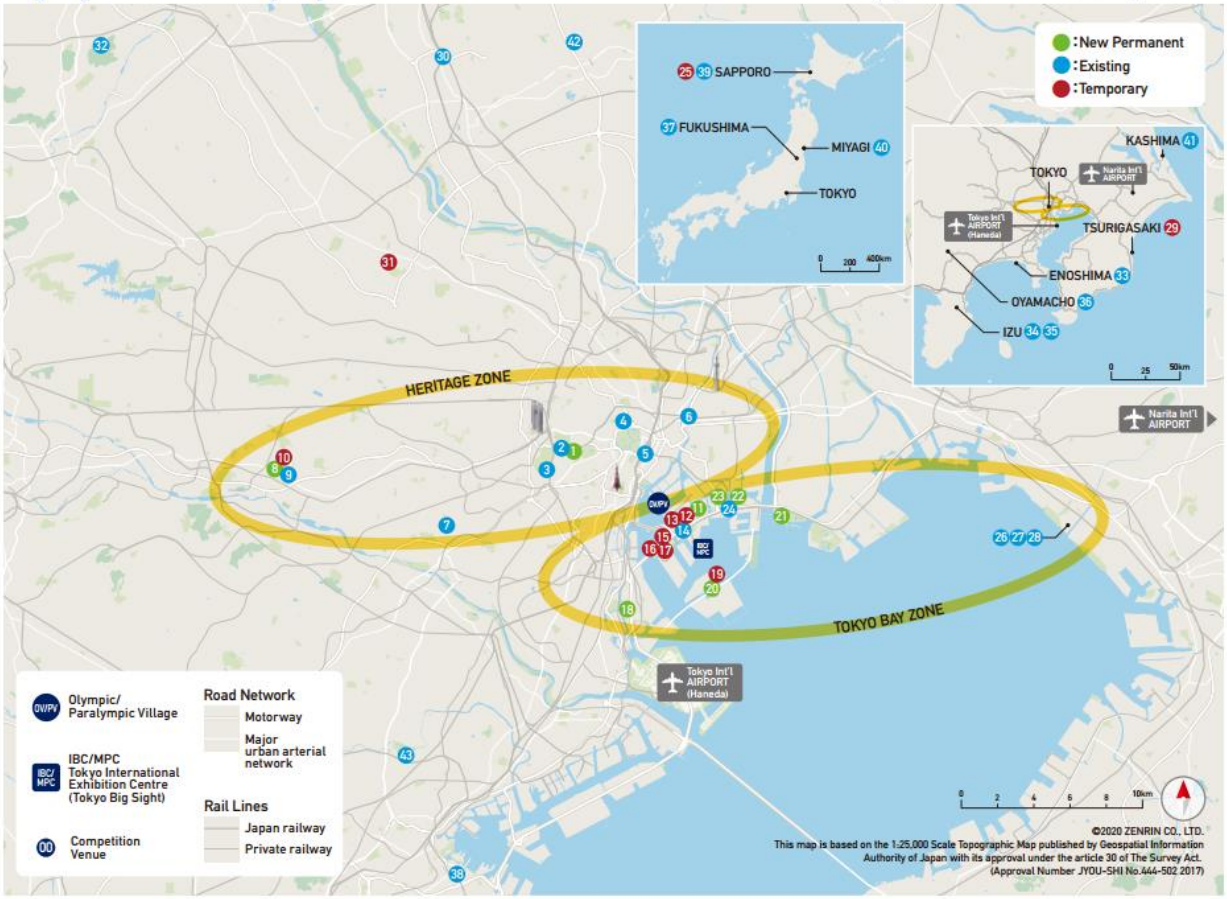
(Competition venue summary)

All 43 competition venues were classified into the following three types according to the details of the development. In addition, we constructed non-competition venues such as the Olympic/Paralympic Village and the International Broadcast Centre/Main Press Centre.

Venue type and number	Summary	Development policy for the Tokyo 2020 Games	Environmental impact	Post-Games use
Existing venue (25)	Utilisation of existing venues including the venues used at the Tokyo 1964 Games and the venues cooperated with local governments outside the Tokyo area	・Repairs required for the Games ・Addition of specific facilities for the Tokyo 2020 Games through overlays*1 and removed afterwards	・Use existing venues to reduce raw material input ・Use rental and leasing for overlays wherever possible	Use to be continued
New permanent venue*2 (8)	New venues making a big contribution to the life of the city	・Design and construction enabling effective use after the Games ・Addition of specific facilities for the Tokyo 2020 Games through overlays and removed afterwards	・Use renewables and timbers to construct venues whilst considering sustainability ・Use rental and leasing for overlays wherever possible	Used as new centres for sport, multi-purpose usage
Temporary venue (10)	Erected for the Games	Including construction of overlays to be used only during the Games and removed afterwards	・Use rental and leasing for overlays wherever possible	・Ariake Gymnastics Centre to be used as exhibition hall ・Future use of several other venues being planned

Olympic and Paralympic Games Venue Master Plan

Olympic Games Venue Master Plan as of December 2019
Paralympic Games Venue Master Plan as of April 2019



HERITAGE ZONE

□ ··· Olympic Games △ ··· Paralympic Games

1 Olympic Stadium
□△ Opening and Closing Ceremonies, Athletics
□ Football

2 Tokyo Metropolitan Gymnasium
□△ Table Tennis

3 Yoyogi National Stadium
□ Handball
△ Badminton, Wheelchair Rugby

4 Nippon Budokan
□△ Judo
□ Karate

5 Tokyo International Forum
□ Weightlifting
△ Powerlifting

6 Kokugikan Arena
□ Boxing

7 Equestrian Park
□ Equestrian (Dressage, Eventing, Jumping)
△ Equestrian

8 Musashino Forest Sport Plaza
□ Badminton, Modern Pentathlon
△ Wheelchair Basketball

9 Tokyo Stadium
□ Football, Rugby, Modern Pentathlon

10 Musashinonomori Park
□ Cycling (Road)

TOKYO BAY ZONE

11 Ariake Arena
□ Volleyball (Volleyball)
△ Wheelchair Basketball

12 Ariake Gymnastics Centre
□ Gymnastics
△ Boccia

13 Ariake Urban Sports Park
□ Cycling (BMX Freestyle, BMX Racing), Skateboarding

14 Ariake Tennis Park
□ Tennis
△ Wheelchair Tennis

15 Odaiba Marine Park
□△ Triathlon
□ Aquatics (Marathon Swimming)

16 Shiokaze Park
□ Volleyball (Beach Volleyball)

17 Aomi Urban Sports Park
□ 3x3 Basketball, Sport Climbing
△ Football 5-a-side

18 Oi Hockey Stadium
□ Hockey

19 Sea Forest Cross-Country Course
□ Equestrian (Eventing (Cross Country))

20 Sea Forest Waterway
□ Canoe (Sprint), Rowing
△ Canoe, Rowing

21 Kasai Canoe Slalom Centre
□ Canoe (Slalom)

22 Yumenoshima Park Archery Field
□△ Archery

23 Tokyo Aquatics Centre
□ Aquatics (Swimming, Diving, Artistic Swimming)
△ Swimming

24 Tatsumi Water Polo Centre
□ Aquatics (Water Polo)

26 Makuhari Messe Hall A
□ Taekwondo, Wrestling
△ Sitting Volleyball

27 Makuhari Messe Hall B
□ Fencing
△ Taekwondo, Wheelchair Fencing

28 Makuhari Messe Hall C
△ Goalball

OTHER VENUES

25 Sapporo Odori Park
□ Athletics (Marathon, Race Walk)

29 Tsurigasaki Surfing Beach
□ Surfing

30 Saitama Super Arena
□ Basketball (Basketball)

31 Asaka Shooting Range
□△ Shooting

32 Kasumigaseki Country Club
□ Golf

33 Enoshima Yacht Harbour
□ Sailing

34 Izu Velodrome
□△ Cycling (Track)

35 Izu MTB Course
□ Cycling (Mountain Bike)

36 Fuji International Speedway
□△ Cycling (Road)

37 Fukushima Azuma Baseball Stadium
□ Baseball/Softball

38 Yokohama Baseball Stadium
□ Baseball/Softball

39 Sapporo Dome
□ Football

40 Miyagi Stadium
□ Football

41 Ibaraki Kashima Stadium
□ Football

42 Saitama Stadium
□ Football

43 International Stadium Yokohama
□ Football

The Tokyo Organising Committee of the Olympic and Paralympic Games

＊①Football event at the Olympic Stadium was not played due to changes in the event schedule and venue during the Games.

Olympic Stadium

*1 For details, see Chapter 5 Venue Development (*pages 188-193*), Sustainability Pre-Games Report

Olympic Stadium

Grand eaves

Use of timber in trusses

New greenery at ground level

Accessibility in the restroom

Above photos © Japan Sport Council

(1) Main sustainability initiatives

The Olympic Stadium was developed with the concept of "forest stadium" as one of its design themes, and it boasts a variety of sustainability considerations.*1

To reduce the environmental impact that arises from running a stadium, the building was designed to take maximum advantage of the power of nature, with solar cells placed at the end of the roof, and rainwater utilised effectively for toilets and other uses. Features such as the grand eaves and "wind terrace" allow the winds in each season to enter the building efficiently, using a natural force as an effective heat-related measure inside of the stadium.

Other initiatives include the bold use of timber and greening of the area Approximately 2,000 cubic metres of certified forest timber from Japan was used for the trusses of the main roof and eaves to reduce environmental impact, and some 24,000 square metres of new greenery was planted based on the concept of potential natural vegetation to ensure harmony with the surrounding landscape.

We promoted active recycling or reuse of soil and construction waste generated through venue construction work. Due to transport scheduling issues with the party reusing the soil, the reuse rate of soil was approximately 85 per cent, below our target of 99 per cent or more. Yet we achieved a 100 per cent reuse or reduction rate for construction waste, surpassing the 99 per cent target.

In addition, based on the views we received from people with impairments and related organisations, we developed the venue to be comfortable for anyone to use regardless of ability, age, gender or nationality through measures such as distributing wheelchair-accessible spectator areas and accessible toilets. We also implemented occupational health and safety measures for workers of our construction contractors.

(2) Post-Games use

The stadium will be maximally utilised as a central base for the promotion of sport, and promoted as a venue for events such as international football and rugby tournaments and national championships. Cultural event and stadium tours will also be held to ensure it remains a favourite regular gathering place for people well into the future.

The stadium will also work in tandem with sport facilities in the neighbouring Jingu Gaien area to enhance the attractiveness of the area and give the district new vitality.

Permanent venues developed by TMG (eight venues)

(1) Main sustainability initiatives

Below are some of the various sustainability initiatives incorporated into the eight permanent venues[*1] provided by the Tokyo Metropolitan Government (TMG).[*2]

The power of nature was utilised to reduce the environmental impact of venue operation with initiatives such as solar panels and other renewable energy technologies,[*3] and the greening of building rooftops and walls.

To use water efficiently, venues were equipped with systems that utilise rainwater for non-potable service water needs, and a water filtration system was installed at the Kasai Canoe Slalom Centre to recycle stored water for competition courses.

Timber was also actively used, particularly in the construction of the main arena of Ariake Arena, with timber grown in Tama, Tokyo used for the ceiling and walls of the main entrances. At Ariake Tennis Park, certifications from the Sustainable Green Ecosystem Council and Programme for the Endorsement of Forest Certification were acquired for the wooden roof trusses of the clubhouse and indoor courts to show that the timber had been sourced properly, a first for a TMG building.

To utilise resources effectively through reuse and recycling, in the construction of several venues, sections that are generally made from new materials were instead made using a large amount of recycled steel using electric furnaces. Construction waste and soil generated in the construction process of new venues were reused and recycled, resulting in a recycling or reduction rate of 99.6 per cent for construction waste, and a 99.9 per cent reuse rate for soil, an achievement of both 99 per cent or more targets.

The venues also outfitted accessible toilets to cater to diverse needs, wheelchair-accessible spectator areas distributed throughout the buildings. And extensive occupational health and safety measures were implemented at construction sites.

(2) Post-Games use

Following the removal of temporary spectator seating and the completion of necessary dismantling works, these venues will be used effectively as valuable assets for local residents long after the Games have ended.

Source: "Future Tokyo: Strategies and Vision" (March 2021, TMG)

*1 Seven new permanent venues: Tokyo Aquatics Centre, Sea Forest Waterway, Ariake Arena, Kasai Canoe Slalom Centre, Oi Hockey Stadium, Yumenoshima Park Archery Field, Musashino Forest Sport Plaza(classified as "plans" in the Candidature File)
Existing venue:Ariake Tennis Park

*2 For details, see Chapter 5 Venue Development *(pages 193-199)*, Sustainability Pre-Games Report.

*3 For details, see Section 4.1 Climate Change *(pages 54-55)*, Sustainability Pre-Games Report.

Tokyo Aquatics Centre

・Tokyo Aquatics Centre (Scheduled to reopen after the Games in 2023 spring)

As a world-class venue central to the future of Japanese swimming, it will be used for major national and international events, to further popularise the sport and foster athletes aiming to compete at both national and international levels.

The sub pool, studios and other facilities in this venue will also be used effectively to provide a place for everyone, from children to seniors, to enjoy sport and improve their health.

The centre will also be used for events in combination with nearby Tatsumi Seaside Park, filling the area with vitality and providing a place for local residents to relax and enjoy themselves.

In addition, the Tokyo Tatsumi International Swimming Center, which has up till now served as host to major national and international swimming competitions, will be converted after the Games into Tokyo Prefecture's first year-round ice rink and used for competitions and training in figure skating, ice hockey and curling.

Sea Forest Waterway

・Sea Forest Waterway (Scheduled to partially reopen in 2022 spring, and to fully reopen in 2023 spring)

As a world-class venue central to water sports in Asia, it will be used to hold various competition events and training camps to foster and develop athletes, as well as to provide opportunities for the general public to try water sports, helping broaden their appeal. It will also be used as an event venue.

Working with the adjacent Sea Forest Park through integrated use of facilities and the establishment of a looped running course and walking path, it will create a new seaside area for relaxation and enjoyment.

Ariake Arena

・Ariake Arena (Scheduled to open in 2022 summer)

The arena will serve as a new base for sport and culture in Tokyo, creating a movement around sport by providing opportunities to watch international competitions and other high-level spectator sporting events, and becoming a location to share culture through events utilising cutting-edge technologies like 5G and augmented reality.

Working with the adjacent Ariake Marine Park (tentative name) through events and the establishment of running and walking courses, it will provide space for local residents to engage in fitness and for people to gather.

Kasai Canoe Slalom Centre

・Kasai Canoe Slalom Centre (Scheduled to partially reopen in 2022 summer, and to fully reopen in 2023 spring)

As the first artificial slalom course in Japan, the Canoe Slalom Centre will provide a stable competition environment to foster and train athletes, as well as opportunities for the general public to experience various kinds of water sports and enjoy activities like rafting. It will also rejuvenate the area by working with the adjacent Kasai Rinkai Park and Kasai Marine Park through integrated use of leisure and recreation facilities.

Oi Hockey Stadium

・Oi Hockey Stadium (Scheduled to reopen in 2022 summer)

The stadium will be used as a multi-purpose competition venue for hockey and other sports, with the aim of promoting, popularising and improving the competitive level of hockey in Japan. The venue will be enable local residents to play a wide variety of sports including football, lacrosse and American football.

The stadium will work with other facilities within the neighbouring park to make Oi Central

Seaside Park a comprehensive base for sport and recreation, serving as a place to experience the natural world.

Yumenoshima Park Archery Field

・Yumenoshima Park Archery Field（Reopened on 31 October 2021）

This venue will be used for holding major competitions to promote, popularise and improve the competitive level of archery in Japan.

As a large greenspace, it will also be used for various purposes such as holding events or sport workshops, and will provide local residents a place for relaxation and enjoyment as part of Yumenoshima Park.

Musashino Forest Sport Plaza

・ Musashino Forest Sport Plaza（Reopened in December 2021）

Continuing on from pre-Games, the venue will be promoted as a facility for competitions, regional sport and large-scale events. Working in cooperation with neighbouring Tokyo Stadium to hold events, it will become the central sport facility in the Tama area.

Ariake Tennis Park

Above photos © TMG

・Ariake Tennis Park（Scheduled to partially reopen in 2022 spring, and to fully reopen in 2023 spring）

This venue has been used for tennis since before the Games, and will continue to serve as a base for sport and recreation with a show court with 3,000 new spectator seats, indoor club house, and indoor courts.

Temporary venues and overlays

(1) Specific initiatives

As temporary venues and overlays (tents, prefabricated structures, temporary spectator seating, ramps, walkways and other structures for operational purposes) were to be used only during the Games as a general rule, and would be dismantled and removed once they had concluded, our focus was to rent or lease as many of the necessary materials and goods as possible, and by ensuring conservation of the natural environment and occupational health and safety at construction sites.*1

For example, the Ariake Gymnastics Centre is a temporary venue where a large amount of timber was used for the beams, exterior and interior. It won an award in the Japan Council for Advancement of Timber Utilisation's fiscal 2020 competition for facilities that employ excellent use of timber. The building also has a number of other sustainability considerations, such as the acquisition of the highest rating of rank S for short-term use under CASBEE*2 in the design-stage evaluation as an exhibition venue after the Games, its use of recycled water for its facilities, and landscaping plan designed to suit the surrounding environment.

Moreover, after the decision was made to postpone the Games, we engaged in preparations to facilitate safe and smooth operations at each venue, such as removing temporary stands and large tents that would have been a challenge from a safety perspective to keep set up over a long period, and reinforcing prefabricated structures and modular housing units that were not removed during the interim to ensure their structural safety.

*1 For details, see Chapter 5 Venue Development (*pages 200-204*), Sustainability Pre-Games Report.

Ariake Gymnastics Centre

*2 Comprehensive Assessment System for Building Environment Efficiency (CASBEE), Japan's green building certification system

(2) Monitoring sustainability during venue development

To avoid and reduce potential risk related to sustainability factors ranging from the environment to human rights, we created a list of issues and initiatives that should be considered beforehand in the development of temporary venues and overlays, and monitored how they were implemented.

To create the list, we referenced initiatives in operational plans, compliance criteria for related laws and regulations, and initiatives in environmental assessments, and organised the sustainability considerations and action items according to eight focus points.

Planning and construction contractors for each project checked and recorded the implementation status of listed initiatives on a checklist. This helped reliably avoid and reduce a wide range of sustainability risks. Because temporary venues and overlays were developed exclusively for use during the Games, giving new life to the resources used to build them is particularly vital in ensuring sustainability, so we checked the progress of efforts to utilise rented and leased materials and reuse purchased goods.

Overview of sustainability considerations

Theme	Focus	Considerations and action items
Climate Change	Energy-saving and CO_2 reduction in buildings	・Strive to reduce energy consumption of temporary power sources
Resource Management	Practicing the 3 Rs and reduce waste	・Minimise waste by prioritising use of rentals and finding destinations for reuse ・Separate and dispose of construction waste properly
	Sourcing environmentally friendly materials	・Actively use eco-materials*3 for construction
Natural Environment and Biodiversity	Conserving the natural environment and biodiversity	・Preserve existing trees whenever possible ・Minimise tree felling
	Consideration for air soil, water, noise and vibrations	・Aim to reduce noise and vibrations from construction vehicles ・Take steps to reduce or prevent construction noise
	Heat-related measures	Set up tents and cooling areas in appropriate areas
Human Rights, Labour and Fair Business Practices	Ensuring building accessibility	Develop facilities based on the Tokyo 2020 Accessibility Guidelines
	Ensuring occupational health and safety at construction sites	・Perform risk assessments and choose safer construction methods ・Create comfortable working environments at construction sites

*3 Eco-materials are materials with outstanding properties or functions, that are healthy for humans and have a low environmental impact throughout their entire life cycle, from selection of raw materials to their production, use and disposal. Examples include recycled crushed stone and certified forest wood.

To ensure sustainability in venue development, it is not only necessary to focus on pre-Games construction work but to also be thorough about dismantling works after the Games.

The overlays and other structures for each venue are currently being dismantled, and we are working to avoid and reduce sustainability risks by having the status of initiatives — such as material recycling, occupational health and safety, and noise and vibration reduction on construction sites — recorded in checklists and monitored, just as with the build-up construction.

(3) Reuse

Whilst temporary venues will be dismantled and removed, the Ariake Gymnastics Centre will be used by TMG as an exhibition centre and, together with nearby Ariake Arena, Ariake Tennis Park and other venues, will form part of a lively new quarter called the Ariake Legacy Area.

Ariake Urban Sports Park, the venue for the Olympic Games' first-ever skateboarding competitions, and plans to utilise its temporary facilities are now being considered to transform it into an area for urban sports that are popular with younger generations as part of the Games legacy.

The Olympic/Paralympic Village

The Olympic/Paralympic Village at Games time

Private developers are responsible for developing residential buildings, commercial buildings and outdoor facility such as open spaces in line with a type 1 urban redevelopment project plan established by TMG. During the Tokyo 2020 Games, some of these were used as residential facilities for athletes in Olympic/Paralympic Village.

Tokyo 2020 developed facilities such as the Village Plaza and main dining hall to be temporary and only used during the Games.

(1) Initiatives at the Games

a. The Village Plaza

The Village Plaza

The Village Plaza was constructed as a facility within the Olympic/Paralympic Village to support the daily activities of athletes. It was built using approximately 40,000 timber loaned free of charge from 63 local authorities across Japan. The combining of wood from each region in various parts of the building expressed Unity in Diversity, and the use of domestic timber was intended to give visibility to forest conservation and revitalisation of the forestry industry.*1

After the Games, each piece of timber will be returned to its place of origin and utilised in public facilities and other structures, being passed on as part of the Games legacy. Each local authority is currently making specific plans for using the timber, with some examples including the interiors of public schools, sport facilities and other buildings, as well as benches, chairs, and tables. Through reuse we not only contribute to reducing environmental impact, but also leave behind a symbol of the Games legacy with brandings on the wood to signify the local area's participation in the Games with the hopes that this increases understanding of and engagement in sustainability across regions and further into the future.

b. Initiatives in the Olympic/Paralympic Village

We used the Tokyo 2020 Accessibility Guidelines to create facilities in the Olympic/Paralympic Village that were easy-to-use for all athletes and others involved in the Games, including gender-neutral accessible toilets in shared facilities, and step-free bus boarding zones.

Additionally, hydrogen energy was utilised in some residential buildings, helping promote through the Games the realisation of a society powered by hydrogen.*2

*1 For details, see Chapter 5 Venue Development (*pages 205-209*), Sustainability Pre-Games Report.

*2 For details see Section 3.1 Climate Change (*pages 30-31*).

(2) City planning post-Games

The Olympic/Paralympic Village and surrounding area is being sustainably developed based on the following three concepts. Leveraging its location near both the city and the sea, and utilising the same hydrogen technology deployed during the Games, it will be transformed into a place where diverse groups of people can meet and live satisfying lives side-by-side.

Supply hydrogen to fuel cell buses and vehicles

Hydrogen station (concept)

Source: Partially revised " Building the legacy — Beyond 2020 — (July, 2021, TMG) " (Photo of fuel cell bus provided by TMG)

① A place for diverse groups of people to interact and live comfortably

- Homes for private ownership built primarily for families with children
- Rental accommodation for diverse needs, such as normal leased accommodation, fully-equipped serviced apartments, accommodation with home offices, accommodation for communal living, and serviced housing catering to the elderly
- Facilities to support multi-generational living, including nursery schools and community centres
- An environment that is easy for everyone to navigate with uniform signage for roads and commercial towers, and barrier-free designs

② A place with water and greenery where residents can feel relaxed and at ease

- City design that is open to the sea, with contiguous greenery and unity between roads, housing and waterfront spaces
- Green open spaces and plazas where children can play safely

③ An environmentally sustainable place that uses new technologies

- Hydrogen stations, hydrogen pipelines and pure hydrogen fuel cells to supply fuel cell buses and other vehicles, and hydrogen supplied to city blocks via pipelines — the first time this will be achieved in Japan on a practical level
- Residential towers with high electricity self-sufficiency through fuel cells and storage batteries to allow the area to function independently in case of a disaster
- Mobility hubs for fixed-route buses and a bus rapid transit (BRT) system, and bicycle sharing schemes

This city development plan acquired four environmental certifications in November 2018. They illustrate the high regard for initiatives including the highly accessible design with plentiful open space, separated pedestrian spaces and bicycle lanes to enable smooth movement, and environmentally-conscious landscaping that incorporates local vegetation and plant aging into greenspace planning.

LEED-ND
Evaluating energy saving and environmental measures of area development

SITES
Evaluating sustainable city development that includes creating open spaces and green spaces

ABINC ADVANCE
Evaluating biodiversity conservation measures

CASBEE BLok
Comprehensively evaluating the quality of a building, including energy saving and landscaping measures

Lessons and takeaways from the Games

At the construction sites of venues and other structures, we implemented a variety of sustainability initiatives— including reusing and recycling resources, greening with native species in consideration of the local environment, ensuring accessibility through input from stakeholders, and improving health and safety together with contractors and designers — providing examples of comprehensive sustainability efforts ranging from the environment to human rights. Using hydrogen energy at the Olympic/Paralympic Village also served as model for the realisation of a hydrogen-powered society.

TMG and Tokyo 2020 reviewed the entire venue plan that had been created at the time of bidding. That included revision of plans for new permanent venues in terms of following three points; what can be legacies; impact on residents' life; and the construction costs. Revising the venue plans with the support of the IOC and the International Federation (IF) made the use of existing venues increase from about 40% to about 60% of the total venues, which contributed to reducing environmental impact such as use of construction materials as well as reducing construction cost.

At the Olympic Stadium and the competition venues developed by TMG, workshops with groups of people with impairments and academic experts were held, and based on various opinions, seats for wheelchair users and accessible toilets were installed and refurbished.

After the Games, it's important that new permanent venues and other structures be used in promoting sport and making the lives of local people more comfortable as part of the Olympic and Paralympic Games legacy.

They should serve not only as the base for sport in local communities — providing space to hold major domestic and international events, and opportunities for local people to experience and watch sport — but also as multipurpose facilities that help create lively communities and cities by providing a hub for diverse communities to gather for culture, arts and other events and partnerships with nearby facilities. The COVID-19 situation may place limitations on plans for use, however, and it will be necessary to additionally call upon the knowledge and know-how of the private developers responsible for the venues in order to realise those plans.

Appendices

GRI Content Index

A series of Tokyo 2020 Games sustainability reports (Progress Report, Pre-Games Report and Post-Games Report) has been prepared in accordance with the GRI Standards: Core option.

The table below lists all the GRI disclosures of the GRI Standards: Core option as well as the material topics identified by Tokyo 2020 and indicates where information can be found in the present report, the already published reports or in other publicly available information sources.

Relevant information also can be found in other Tokyo 2020's reports and documents such as "Tokyo 2020 Action & Legacy Report", "Tokyo 2020 Gender Equality, Diversity and Inclusion Report" both of which will be published in December 2021, and the official report and other wrap-up documents of the Tokyo 2020 Games which will be disclosed later.

GRI Standard	Disclosure	Page number(s) and/or URL(s); Reason of omission [Abbreviation] PRG: Sustainability Progress Report (26 March, 2019) PRE: Sustainability Pre-Games Report (30 April, 2020) UPD: Update to the Sustainability Pre-Games Report (8 July, 2021) PST: Sustainability Post-Games Report (22 December, 2021)
GRI 101: GRI Foundation 2016		
General Disclosures: Core option		
GRI 102: General Disclosures 2016	102-1: Name of the organization	PST: Contents page
	102-2: Activities, brands, products, and services	Tokyo 2020 Olympic and Paralympic Games Sustainability Plan Version 2, pages 6-11; Tokyo 2020 Games Foundation Plan, pages 1-29; https://tokyo2020.jp/ja/
	102-3: Location of headquarters	PRE: Pages 13, 238
	102-4: Location of operations	PRE: Pages 13, 238
	102-5: Ownership and legal form	PRE: Page 13
	102-6: Markets served	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	102-7: Scale of the organization	Employees: PST: Pages 135-136 Operations: PRE: Page 238 Budgets: https://tokyo2020.jp/ja/ Products/services: https://tokyo2020.jp/ja/
	102-8: Information on employees and other workers	PST: Pages 74, 77-78, 135-137 UPD: Pages 21-24, 73-74 PRE: Pages 26-30, 241-242 PRG: Pages 26-28, 146-147
	102-9: Supply chain	PST : Pages 95-108; https://tokyo2020.jp/ja/
	102-10: Significant changes to the organization and its supply chain	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	102-11: Precautionary Principle or approach	PRE: Pages 264-275
	102-12: External initiatives	PRE: Page 237
	102-13: Membership of associations	PRE: Page 237
	102-14: Statement from senior decision-maker	PST: Pages 1-2 UPD: Pages 1-2 PRE: Pages 7-9 PRG: Pages 6-10

102-16: Values, principles, standards, and norms of behavior	Tokyo 2020 Games Foundation Plan, pages 1-15
102-18: Governance structure	Tokyo 2020: https://tokyo2020.jp/ja/ Sustainability: https://tokyo2020.jp/ja/games/sustainability/
102-40: List of stakeholder group	**PRE**: Page 236
102-41: Collective bargaining agreements	**PRE**: Page 242
102-42: Identifying and selecting stakeholders	**PRE**: Pages 17-19, 236
102-43: Approach to stakeholder engagement	**PRE**: Pages 17-19, 34-35
102-44: Key topics and concerns raised	Minutes of Tokyo 2020's commissions (partially): https://tokyo2020.jp/ja/organising-committee/finance/ Minutes of Tokyo 2020's discussion groups and working groups on sustainability: https://tokyo2020.jp/ja/games/sustainability/sus-group/ Status of the reports received in the grievance mechanism for the Sustainable Sourcing Code, response to stakeholder opinions: **PST**: Pages 103-106, 147-151 **UPD**: Pages 66-68 **PRE** : Pages 177-178, 181-182, 253-255 **PRG** : Pages 101-102 https://tokyo2020.jp/ja/games/sustainability/sus-code
102-45: Entities included in the consolidated financial statements	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
102-46: Defining report content and topic Boundaries	**PST**: Pages 5-6 **UPD**: Pages 7-10 **PRE**: Pages 15-24 **PRG**: Pages 15-20
102-47: List of material topics	**PRE**: Pages 223-234
102-48: Restatements of information	**PST**: Pages 5-6 **UPD**: Pages 7-10 **PRE**: Pages 15-17
102-49: Changes in reporting	**PST**: Pages 5-6 **UPD**: Pages 7-10 **PRE**: Pages 15-19
102-50: Reporting period	**PST**: Page 6 **UPD**: Pages 8-9 **PRE**: Pages 15-17 **PRG**: Page 16
102-51: Date of most recent report	**PST**: Pages 5-6
102-52: Reporting cycle	**PST**: Pages 5-6
102-53: Contact point for questions regarding the report	**PST**: Contents page
102-54: Claims of reporting in accordance with the GRI Standards	**PST**: Page 5
102-55: GRI content index	**PST**: Pages 121-131
102-56: External assurance	**PRE**: Page 15

Material topics		
Economic Performance		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	https://tokyo2020.jp/ja/
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	https://tokyo2020.jp/ja/
	201-2: Financial implications and other risks and opportunities due to climate change	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	201-4: Financial assistance received from government	https://tokyo2020.jp/ja/
Market Presence		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 8-9, 121-131 **PRE**: Pages 20-24, 31-36, 223-234 **PRG**: Pages 15-19, 29-31, 126-127
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 202: Market Presence 2016	202-1: Ratios of standard entry level wage by gender compared to local minimum wage	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	202-2: Proportion of senior management hired from the local community	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
Indirect Economic Impacts / Legacy		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 8-9 **PRE**: Pages 20-24, 31-36, 218-221 **PRG**: Pages 15-19, 29-31, 126-127
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 203: Indirect Economic Impacts 2016	203-1: Infrastructure investments and services supported	**PST**: Pages 109-119 **UPD**: Page 72 **PRE**: Pages 184-210, 218-221 **PRG**: Pages 106-119, 126-127
	203-2: Significant indirect economic impacts	
	Maximising Olympic legacy; Lessons and takeaways from the Games; Innovation	**PST**: Pages 7-9, 12-13, 14-15, 18-19, 33-34, 54-57, 69, 81, 93-94, 106-107, 118-119 **UPD**: Pages 5-6, 72 **PRE**: Pages 218-221 **PRG**: Pages 126-127
	Location and credentials of venues Location and credentials of accommodation Venue development	Tokyo 2020 Olympic and Paralympic Games Sustainability Plan Version 2, pages 101-133; **PST**: Pages 109-119 **PRE**: Pages 184-210 **PRG**: Pages 106-119

Procurement Practices		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 167-183 **PRG**: Pages 24, 29-31, 95-105
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 204: Procurement Practices 2016	204-1: Proportion of spending on local suppliers	Information unavailable (not yet compiled)
	Sustainable sourcing	**PST**: Pages 95-108 **UPD**: Pages 66-71 **PRE**: Pages 167-183 **PRG**: Pages 95-105
Anti-corruption		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 115-120, 141-142 **PRG**: Pages 29-31, 69-71, 82
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 205: Anti-corruption 2016	205-1: Operations assessed for risks related to corruption	Not applicable (Tokyo 2020 is a public interest incorporated foundation that is required a highly refined sense of ethics throughout its operations. Tokyo 2020 staffs are deemed as public officers)
	205-2: Communication and training about anti-corruption policies and procedures	**PST**: Pages 95-108 **UPD**: - **PRE**: Pages 141-143 **PRG**: Pages 82-83
	205-3: Confirmed incidents of corruption and actions taken	Not applicable (no reported cases)
Anti-competitive Behavior		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 118-120, 141-142 **PRG**: Pages 29-31, 69-71, 82
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 206: Anti-competitive Behavior 2016	206-1: Legal actions for anticompetitive behavior, anti-trust, and monopoly practices	Not applicable (no reported cases)
Resource utilization / Efficient use of materials		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 35-58 **PRE**: Pages 31-36, 69-86, 245-251 **PRG**: Pages 29-31, 48-54, 149
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	

GRI 301: Materials 2016	301-1: Materials used by weight or volume	**PST**: Pages 36-58, 140-147
	301-2: Recycled input materials used	
	301-3: Reclaimed products and their packaging materials	
	Reduction of the edible part of food waste; Reduction of packaging materials; Reduction of single-use plastics; Reuse and recycling	**PST**: Pages 35-58 **UPD**: Pages 40-45 **PRE**: Pages 72-86 **PRG**: Pages 51-54
Energy		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 21-34 **PRE**: Pages 31-36, 38-68, 243-244 **PRG**: Pages 29-31, 33-47, 148
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 302: Energy 2016	302-1: Energy consumption within the organization	**PST**: Pages 21-34
	302-2: Energy consumption outside of the organization	Information unavailable (Tokyo 2020 does not procure such energy)
	302-3: Energy intensity	**PST**: Pages 21-34
	302-4: Reduction of energy consumption	**PST**: Pages 21-34, 138-139 **UPD**: Pages 33-39 **PRE**: Pages 38-68, 184-210, 243-244 **PRG**: Pages 33-47, 106-119, 150
	302-5: Reduction in energy requirements of products and services	**PST**: Pages 21-34, 138-139 **UPD**: Pages 33-39 **PRE**: Pages 167-183, 243-244 **PRG**: Pages 95-105
	Renewable electricity; Use of hydrogen energy	**PST**: Pages 21-34 **UPD**: Pages 33-39
	Transport with low environmental load	**PST**: Pages 21-34 **UPD**: Pages 33-39 **PRE**: Pages 57-60, 212 **PRG**: Pages 37-38, 121
Water		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 59-69 **PRE**: Pages 31-36, 87-113, 167-183, 184-210, 264-275 **PRG**: Pages 29-31, 55-67, 95-105, 106-119, 153-157
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 303: Water 2016	303-1: Water withdrawal by source	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	303-2: Water sources significantly affected by withdrawal of water	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)

	303-3: Water recycled and reused	**PST**: Pages 59-69, 153 **UPD**: Page 47 **PRE**: Page 263 **PRG**: Page 152
	Water circulation in the city	**PST**: Page 63-64 **UPD**: Page 47 **PRE**: Pages 99-101 **PRG**: Pages 61-63
Biodiversity / Animal Welfare		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 59-69 **PRE**: Pages 31-36, 87-113, 167-183, 184-210, 264-275 **PRG**: Pages 29-31, 55-67, 95-105, 106-119, 153-157
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 304: Biodiversity 2016	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	**PST**: Pages 59-69 **UPD**: Pages 46-48 **PRE**: Pages 89-91, 94, 96-101 **PRG**: Page 65
	304-2: Significant impacts of activities, products, and services on biodiversity	**PST**: Pages 59-69 **UPD**: Pages 46-48 **PRE**: Pages 20-24, 38-68, 87-113, 167-183, 184-210, 264-275 **PRG**: Pages 23-24, 33-47, 48-54, 55-67, 95-105, 106-119, 153-157
	304-3: Habitats protected or restored	**PST**: Pages 59-69, 152-153 **UPD**: Pages 46-48 **PRE**: Pages 86-113, 184-210, 264-275 **PRG**: Pages 55-67, 106-119, 153-157
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations	**PST**: Pages 59-69 **UPD**: Pages 46-48 **PRE**: Pages 264-275 **PRG**: Pages 153-157
	Greening	**PST**: Pages 59-69, 153 **UPD**: Pages 46-48 **PRE**: Pages 89-91, 94, 96-101, 262-263 **PRG**: Pages 64-66, 152
	Resource consumption to conserve biodiversity	**PST**: Pages 59-69, 152-153 **UPD**: Pages 46-48 **PRE**: Pages 70-86, 167-183 **PRG**: Pages 50, 53, 95-105
	Animal welfare	Information unavailable (information is not of adequate quality to report)
Emissions / Climate Change		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 21-34 **PRE**: Pages 31-36, 38-68 **PRG**: Pages 29-31, 33-47, 148
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	

GRI 305: Emissions 2016	305-1: Direct (Scope 1) GHG emissions	**PST**: Pages 21-34 **UPD**: Pages 33-39 **PRE**: Pages 38-68, 243-244 **PRG**: Pages 33-47, 106-119, 148
	305-2: Energy indirect (Scope 2) GHG emissions	
	305-3: Other indirect (Scope 3) GHG emissions	
	305-4: GHG emissions intensity	
	305-5: Reduction of GHG emissions	
	305-6: Emissions of ozone-depleting substances (ODS)	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	305-7: Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Information unavailable (available after the Games through environmental assessment)
	Carbon offset; CO_2 reduction by citizens	**PST**: Pages 21-34 **UPD**: Pages 33-39 **PRE**: Pages 65-68 **PRG**: Page 42
	Heat management	**PST**: Pages 60-63 **UPD**: Pages 46-47 **PRE**: Pages 67, 102-113 **PRG**: Page 43
Effluents and Waste		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 35-69 **PRE**: Pages 31-36, 87-113, 167-183, 184-210, 264-275 **PRG**: Pages 29-31, 55-67, 95-105, 106-119, 153-157
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 306: Effluents and Waste 2016	306-1: Water discharge by quality and destination	**PST**: Page 143
	306-2: Waste by type and disposal method	**PST**: Pages 35-58, 140-141
	306-3: Significant spills	Not applicable (no reported cases)
	306-4: Transport of hazardous waste	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	306-5: Water bodies affected by water discharges and/or runoff	**PST**: Pages 35-69, 95-102, 140-147, 153 **UPD**: Pages 40-48, 66-71 **PRE**: Pages 87-113, 167-183, 184-210, 264-275 **PRG**: Pages 55-67, 106-119, 153-157
Environmental Compliance		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 35-69, 95-108 **PRE**: Pages 31-36, 38-113, 167-183, 184-210, 264-275 **PRG**: Pages 29-31, 33-67, 106-119, 153-157
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 307: Environmental Compliance 2016	307-1: Non-compliance with environmental laws and regulations	Not applicable (no reported cases)

Supplier Environmental Assessment		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 167-183, 264-275 **PRG**: Pages 29-31, 95-105, 153-157
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screened using environmental criteria 308-2: Negative environmental impacts in the supply chain and actions taken	**PST**: Pages 95-108 **UPD**: Pages 66-71 **PRE**: Pages 167-183 **PRG**: Pages 95-105
Employment		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143 **PRG**: Pages 29-31, 67-83
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 401: Employment 2016	401-1: New employee hires and employee turnover	**PST**: Pages 70-82, 135-137 **UPD**: Pages 49-59. 73-74 **PRE**: ages 26-27, 241-242 **PRG**: Pages 26-27
	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	Not applicable (Tokyo 2020's staff breakdown has characteristics that differ from other, more standard organizations). Refer to **PRE**: pages 26-27 (staff breakdown).
	401-3: Parental leave	**PRE**: Pages 139-143
	Diverse personnel	**PST**: Pages 70-82, 135-137 **UPD**: Pages 49-59. 73-74 **PRE**: Pages 115-130, 139-143, 241-242 **PRG**: Pages 72-75, 81-82
Occupational Health and Safety		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143, 167-183, 184-210 **PRG**: Pages 29-31, 67-83, 107-119
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 403: Occupational Health and Safety 2016	403-1: Workers representation in formal joint management-worker health and safety committees	**PST**: - **UPD**: - **PRE**: Page 242 **PRG**: Page 147
	403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Not applicable/not reported (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	403-3: Workers with high incidence or high risk of diseases related to their occupation	Not applicable (GRI disclosures for this topic are not relevant to Tokyo 2020's activities)
	403-4: Health and safety topics covered in formal agreements with trade unions	**PST**: - **UPD**: - **PRE**: Page 242 **PRG**: Page 147

	Working and activity environment	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 139-143 **PRG**: Pages 81-82
	Occupational health and safety in facility works	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 190-210 **PRG**: Page 119
Training and Education		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143, 144-166 **PRG**: Pages 29-31, 67-83
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 404: Training and Education 2016	404-1: Average hours of training per year per employee	Information unavailable (not yet compiled due to Tokyo 2020's characteristics that differ from other, more standard organizations)
	404-2: Programs for upgrading employee skills and transition assistance programs	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 27, 120-125, 144-166 **PRG**: Pages 27, 72-74, 87-88
	404-3: Percentage of employees receiving regular performance and career development reviews	**PST**: Pages 135-136 **UPD**: Pages 73-74 **PRE**: Pages 27, 241-242 **PRG**: Pages 27, 147
Diversity and Equal Opportunity / Accessibility / Consideration for cultural and religious issues		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143, 144-166 **PRG**: Pages 29-31, 67-83
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 405: Diversity and Equal Opportunity 2016	405-1: Diversity of governance bodies and employees	**PST**: Pages 70-82 **UPD**: Pages 31-32, 49-59 **PRE**: Pages 241-242 **PRG**: Pages 146-147
	405-2: Ratio of basic salary and remuneration of women to men	Not applicable (no institutional gender bias against opportunity) / Information unavailable (Tokyo 2020's staff breakdown has characteristics that differ from other, more standard organizations)
	D&I policy and programmes	**PST**: Pages 70-82 **UPD**: Pages 31-32, 49-59 **PRE**: Pages 120-130, 209-217 **PRG**: Pages 71-75
	Accessibility	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 131-135 **PRG**: Pages 75-79
	Diverse personnel	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 120-130 **PRG**: Pages 71-75
	Consideration for cultural issues; Consideration for religious issues	**PST**: Pages 70-82 **UPD**: Pages 49-59 **PRE**: Pages 120-130 **PRG**: Page 74
	Ticketing	**PRE**: Pages 134, 214 **PRG**: Pages 78, 122-123

Human rights / Non-discrimination / Freedom of media, expression and assembly / Workers' right / Grievance mechanism		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143, 167-183 **PRG**: Pages 29-31, 68-83, 95-105
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 406: Non-discrimination 2016	406-1: Incidents of discrimination and corrective actions taken	**PST**: Page 136 **UPD**: Page 74 **PRE**: Page 242 **PRG**: Not applicable (no reported cases)
	Freedom of media, expression, and assembly	**PST**: Pages 70-82 **UPD**: - **PRE**: Pages 135-136 **PRG**: Page 80
	Workers' right	**PST**: Pages 70-82 **UPD**: Pages 58-59 **PRE**: Pages 136-138 **PRG**: Page 80
	Grievance mechanism	**PST**: Pages 70-82, 103-106 **UPD**: Pages 58-59, 66-68 **PRE**: Pages 142-143, 167-183 **PRG**: Page 83, 95-105
Child Labor		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 114-143, 167-183 **PRG**: Pages 29-31, 68-83, 95-105
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 408: Child Labor 2016	408-1: Operations and suppliers at significant risk for incidents of child labor	**PST**: Pages 95-108 **UPD**: Pages 66-71 **PRE**: Pages 167-183 **PRG**: Pages 95-105
Forced or Compulsory Labor		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 95-108 **PRE**: Pages 31-36, 114-143, 167-183 **PRG**: Pages 29-31, 68-83, 95-105
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 409: Forced or Compulsory Labor 2016	409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labor	**PST**: Pages 95-108 **UPD**: Pages 66-71 **PRE**: Pages 167-183 **PRG**: Pages 95-105
Security Practices		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 70-82 **PRE**: Pages 31-36, 114-143 **PRG**: Pages 29-31, 68-83
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
GRI 410: Security Practices 2016	410-1: Security personnel trained in human rights policies or procedures	**PST**: Pages 74-76, 79 **UPD**: Pages 49-59

Transport and logistics		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 31-32 **PRE**: Pages 21-22, 38-68, 209-210, 212 **PRG**: Pages 23, 33-47, 121
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
	Transport and logistics	**PST**: Pages 31-32 **UPD**: Pages 38-39 **PRE**: Pages 38-68, 209-210, 212 **PRG**: Pages 33-47, 121
Consumer practices / Product liability / Safe and hygienic food and beverage		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	Tokyo 2020 Games Foundation Plan
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
	Consumer practices	https://tokyo2020.jp/ja/
	Product liability	https://tokyo2020.jp/ja/
	Safe and hygienic food and beverage	**PRE**: Page 216, https://tokyo2020.jp/ja/
Communication / Involvement and cooperation		
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its Boundaries	**PST**: Pages 16-19, 83-94 **PRE**: Pages 31-36, 144-166 **PRG**: Pages 29-31, 84-94
	103-2: The management approach and its components	
	103-3: Evaluation of the management approach	
	Communication; Involvement and cooperation	**PST**: Pages 83-94 **UPD**: Pages 60-65 **PRE**: Pages 144-166 **PRG**: Pages 84-94

United Nations Global Compact Content Index

Tokyo 2020 participated in the United Nations Global Compact (UNGC) in July 2018. This index shows relevant pages of this report on Tokyo 2020 sustainability actions in line with the UNGC Principles.

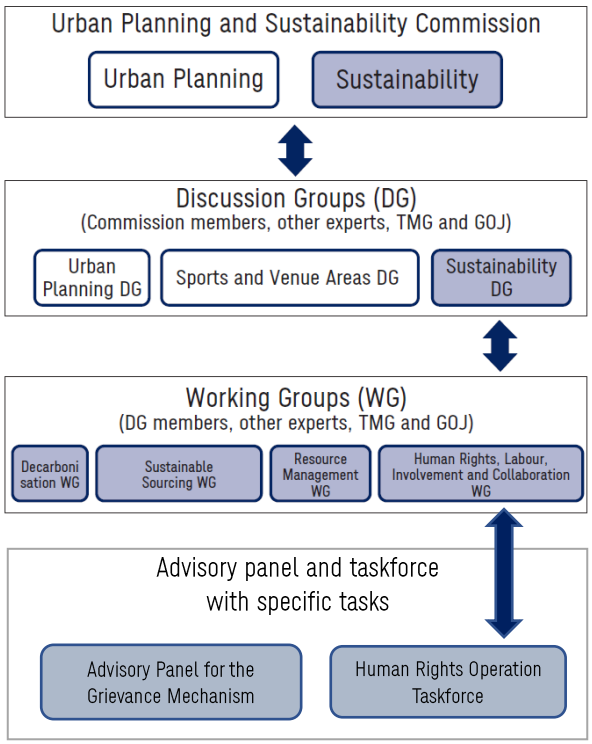
GC Principles			Sustainability Post-Games Report
Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights.	• 3.4 (pages 70-82) • 3.6 (pages 95-108)
	Principle 2	Businesses should make sure that they are not complicit in human rights abuses.	• 3.4 (pages 70-82) • 3.6 (pages 95-108)
Labour	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	• 3.6 (pages 95-108)
	Principle 4	Businesses should uphold the elimination of all forms of forced and compulsory labour.	• 3.6 (pages 95-108)
	Principle 5	Businesses should uphold the effective abolition of child labour.	• 3.6 (pages 95-108)
	Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.	• 3.4: Initiatives for Unity in Diversity (pages 74-77) • 3.6 (pages 95-108)
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges.	• 3.1 (pages 21-34) • 3.2 (pages 35-58) • 3.3 (pages 59-69) • 3.6 (pages 95-108) • 3.7 (pages 109-119)
	Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility.	• 2.2 (pages 16-19) • 3.1 (pages 21-34) • 3.2 (pages 35-58) • 3.3 (pages 59-69) • 3.6 (pages 95-108) • 3.7 (pages 109-119)
	Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies.	• 3.1 (pages 21-34) • 3.2 (pages 35-58) • 3.3 (pages 59-69) • 3.6 (pages 95-108) • 3.7 (pages 109-119)
Anti-Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	• 3.6 (pages 95-108)

List of Functional Areas (FAs)

Functional Area（FA）List			
	English	Abbreviation	Japanese
1	Accommodation	ACM	宿泊
2	Accreditation	ACR	アクレディテーション
3	Arrivals & Departures	AND	出入国
4	Brand Protection	BRP	ブランド保護
5	Brand, Identity & Look of the Games	BIL	大会のブランド・アイデンティティ・ルック
6	Broadcast Services	BRS	放送サービス
7	Business Development	BUS	ビジネス開発
8	Ceremonies	CER	セレモニー
9	City Activities & Live Sites	LIV	都市活動・ライブサイト
10	City Operations	CTY	都市運営調整
11	Cleaning & Waste	CNW	清掃・廃棄物
12	Communications (including Digital Media and Publications)	COM	コミュニケーション（デジタルメディア・出版物含む）
13	Communications, Coordination & Command/Control	CCC	コミュニケーション･コーディネーション･コマンド／コントロール
14	Culture	CUL	文化
15	Doping Control	DOP	ドーピングコントロール
16	Education	EDU	教育
17	Energy	NRG	エネルギー
18	Event Services	EVS	イベントサービス
19	Finance	FIN	財政
20	Food & Beverage	FNB	飲食
21	Government Relations	GOV	国・自治体調整
22	IF Services (included under Sport)	INS	IFサービス（競技に含まれる）
23	Information & Knowledge Management	IKM	情報・知識マネジメント
24	Language Services	LAN	言語サービス
25	Legacy	LGY	レガシー
26	Legal	LGL	法務
27	Licensing	LIC	ライセンシング
28	Logistics	LOG	ロジスティクス
29	Marketing Partner Services	MPS	マーケティングパートナーサービス
30	Medical Services	MED	メディカルサービス
31	NOC & NPC Services	NCS	NOC・NPCサービス
32	Olympic & Paralympic Family Services (including Dignitary Programme and Protocol)	OFS,PFS, DIP,PRT	オリンピック・パラリンピックファミリーサービス（要人へのプログラム・プロトコール含む）
33	Operational Readiness	OPR	運営実践準備管理
34	Paralympic Games Integration	PGI	パラリンピックインテグレーション
35	People Management	PEM	人材管理
36	Planning & Coordination	PNC	計画・調整
37	Press Operations	PRS	プレスオペレーション
38	Procurement (including Rate Card)	PRC,RTC	調達（レートカード含む）
39	Risk Management	RSK	リスクマネジメント
40	Security	SEC	セキュリティ
41	Signage	SIG	標識・サイン
42	Spectator Experience	SPX	観客の経験
43	Sport	SPT	競技
44	Sustainability	SUS	持続可能性
45	Technology	TEC	テクノロジー
46	Test Events Management	TEM	テストイベントマネジメント
47	Ticketing	TKT	チケッティング
48	Torch Relay	OTR	聖火リレー
49	Transport	TRA	輸送
50	Venue Management	VEM	会場マネジメント
51	Venues & Infrastructure (including Venue Development and General Infrastructure)	VNI	会場・インフラ（会場設営・一般的なインフラ含む）
52	Villages Management	VIL	選手村マネジメント

Commissions for Sustainability Initiatives

Through all phases from planning, preparation, operation and delivery of the Games to succession of legacy, sustainability commissions, established within Tokyo 2020 and composed of experts, academic researchers and NGO representatives, have supported the sustainability initiatives of the Tokyo 2020 Games.



Reviews the Action & Legacy Plan and sustainability-related plans. Discusses extensively.

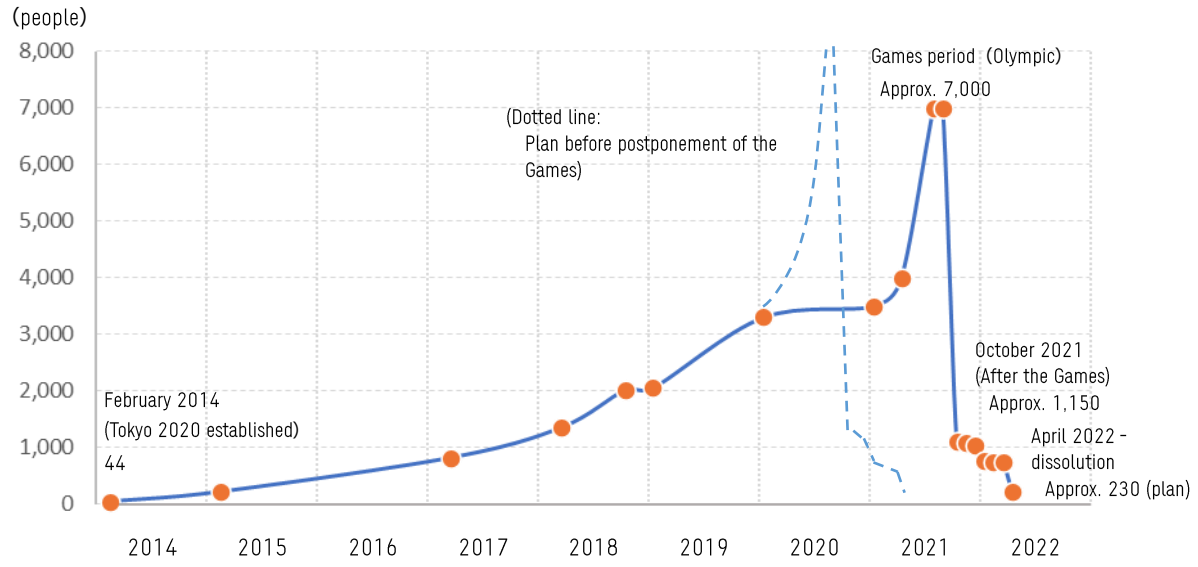
Organised by themes. Discusses specific initiatives, projects, plans, etc.
Sustainability DG is composed of members in sustainability field of the Urban Planning and Sustainability Commission.

Discusses specific initiatives, projects, plans, etc. from a more specialised perspective.

Employment & Diversity

Data and information on employment and diversity of the Tokyo 2020 staff are shown below, focusing on breakdown data at the Games time and recent information on incidents of discrimination not covered in the already published Update to the Sustainability Pre-Games Report. For past data and general information, refer to the already published reports.

(1) Transition of Tokyo 2020 Staff numbers



(2) Breakdown of Tokyo 2020 employees at the Games time

Data on employment and diversity presented in the table below are summarised as of 1 August 2021. They are shown as typical examples which may not be necessarily the most staff numbers.

Nationalities

	Non-Japanese	Japanese	Total
Number	425 (49 nationalities)*1	-	6,948

*1 Out of the employees whose nationalities were identified.

Employees per employment contract (secondment, direct employment), secondment organisation

Secondment	Government of Japan	91	1.3 %
	Tokyo Metropolitan Government	1,111	16.0 %
	Regional/local governments	471	6.8 %
	Private entities	996	14.3 %
Direct employment		4,279	61.6 %
Total		6,948	100 %

Employees per gender, age group, employment contract

	Secondment (Government of Japan, Tokyo Metropolitan Government, regional/local governments, private entities)			Direct employment (Direct employment, temporary staff)			Total		
	Men	Women	Sub total	Men	Women	Sub total	Men	Women	Total
Under 30	101	82	183	84	100	184	185	182	367
30 - 49	1,249	420	1,712	302	474	776	1,594	894	2,488
50 - 59	383	97	480	166	135	301	549	232	781
60 and over	84	10	94	176	36	212	260	46	306
Unknown	149	51	197	1,301	1,505	2,806	1,450	1,556	3,066
Total	2,009	660	2,669	2,029	2,250	4,279	4,038	2,910	6,948

Employees per gender, age group, position level

	Special position officers			Management level directors (Executive Director,Senior Director, Director)			Special position officers and management level directors		
	Men	Women	Sub total	Men	Women	Sub total	Men	Women	Total
Under 30	0	0	0	0	0	0	0	0	0
30 - 49	0	0	0	327	82	409	327	82	409
50 - 59	1	0	1	289	53	342	290	53	343
60 and over	13	0	13	120	13	133	133	13	146
Unknown	0	0	0	261	72	333	261	72	333
Total	14	0	14	997	220	1,217	1,011	220	1,231

(3) Disability

Tokyo 2020 complied with the legal rate of employment for the disabled in 2021.

(4) Incidents of discrimination and corrective actions taken

We have a procedure for the management of situations involving conflict and/or harassment. In the event of a persistent conflict situation or if the employee wishes to have access to an external solution, recourse to a third party is possible.

In the period from April 2021 (after the period covered by the Update to the Sustainability Pre-Games Report), there have been three cases of incidents relating to discriminatory behaviour by those involved in the preparation and delivery of the Tokyo 2020 Games, as described below.

- In July 2021, a member of the creative team for the Opening and Closing Ceremonies was reported about his past inappropriate deeds and words related to people with impairment, and he stepped down from the position.
- In July 2021, a member of the creative team for the Opening and Closing Ceremonies was reported about his past inappropriate deeds and words related to a painful historical fact, and Tokyo 2020 dismissed him from the position.
- In July 2021, an worker of a contractor engaged in a part of services at competition venues was arrested on suspicion of sexually assaulting another staff inside a competition venue under preparation for the Games delivery. Tokyo 2020 requested the contractor to secure working with strong work ethics.

Tokyo 2020 Games Volunteers

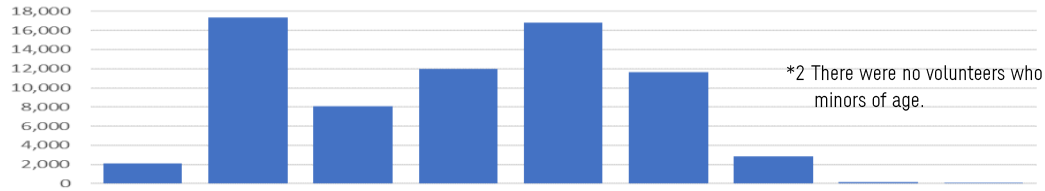
Games volunteers (Field Cast) with diversity shined at the Tokyo 2020 Games.
Detailed data as of 26th of July were shown below.

(1) Number of people

Olympic	51,762	
Paralympic	24,514	
Participated in both Olympic and Paralympic		5,216
Total	Gross 76,186	Net*1 **70,970**

*1 Out of the approximately 80,000 original registered Games volunteers, around 10,000 have withdrawn from participation by the Games time.

(2) Ages



*2 There were no volunteers who were minors of age.

	10's	20's	30's	40's	50's	60's	70's	80's	90's	Total
Number	2,112*2	17,354	8,112	11,972	16,815	11,640	2,823	139	3	**70,970**

(3) Genders

	Male	Female	X	Total
Number	29,677	41,289	4	**70,970**

(4) Nationalities

	Non-Japanese	Japanese	Total
Number	7,092 *3	63,878	**70,970**

*3 The number of volunteers from abroad was 110.

(5) Roles

Fields	Number
Guidance*4	16,710
Events	17,778
Mobility Support (driving, etc.)	5,393
Personal Support	10,463
Operational Support	7,493
Healthcare*4	7,221
Technology	1,831
Media	3,022
Ceremonies	1,059
Total	**70,970**

*4 The numbers were based on the registered roles.
They may have been reassigned to other roles.

Climate Change (reference for 3.1)

Furniture, Fixtures and Equipment with High Energy Performance

Item	Standard	Number of units
45L (refrigerators cool direct, free-C)	Energy-saving label*1: Three stars	529
Refrigerators (138L)	Energy-saving label: Five stars	1,511
Refrigerators (168L)	Energy-saving label: Five stars	812
Refrigerators (248L)	Energy-saving label: Five stars	28
Microwaves	Level of energy-saving standard achieved*2: 102%	1,077

*1 A label that indicates the relative energy-saving performance of appliances by the number of stars. This label also shows the level of energy-saving standard achieved as well as a yearly electric rate anticipated

*2 A percentage that shows the energy-saving performance of a product relative to that of the most energy-efficient product (top runner) in the market

Other Equipment with High Energy Efficiency

Item	Standard	Number of units
Laptops	International ENERGY STAR Program*1	10,920
Multifunction machines	International ENERGY STAR Program	425

*1 An international energy-saving standard for office equipment. The top 25 per cent of products with outstanding energy-saving performance in and other factors when in operation, sleep mode or off are considered to be in compliance

Equipment Using Refrigerants

Equipment type	Natural refrigerant	HFC (GWP＜1000)	HFC (GWP≧1000)	Sub total
Refrigerators	4,907	0	29	4,936
Freezers	25	0	323	348
Vending machines	459	0	0	459
HVACs	0	15,012	0	15,012
Air spot coolers	596	6	77	679
Medical cooling devices	0	0	13	13
Total	5,987	15,018	442	21,447

Equipment list

Items(size/type)	Number of units	Refrigerant	Global Warming Potential (GWP)
Refrigerators (45L)	529	R600a	3
Refrigerators (138L)	1,511	R600a	3
Refrigerators (168L)	812	R600a	3
Refrigerators (248L)	28	R600a	3
HVACs	15,012	R32	675
Air cooling cube ice makers (Stack-on type) Capacity: 240kg of cube ice	21	R404A	3920
Prefabricated walk-in cooler (24.5 ㎡, 30.7 ㎡ x 2)	3	R401a	2090
Freezer stockers(635L)	284	R134a	1430
Freezing display cases(345L)	39	R404A	3920
Freezer stockers(463L)	25	R600a	3
Prefabricated refrigerators (6.6 ㎡)	5	R404A	3920
Beverage Refrigerators(P)	1,000	R744	1
Beverage Refrigerators(W)	1,000	R290	3
Beverage Vending machines	381	R744	1
Beverage Vending machines (fixed cost)	78	R744	1
Ice Bath Cooling units for hydrotherapy (A)	6	R407C	1770
Ice Bath Cooling units for hydrotherapy (B)	1	R410A	2090
Ice Bath Cooling units for hydrotherapy (C)	2	R407C	1770
Ice cube makers for hydrotherapy	3	R404A	3920
Cooling unit for ice cube maker	1	R410A	2090
Beverage refrigerators (PRS)	27	R600a	3
Large evaporative air cooler	546	—	0
FOP Portable ice cooling air conditioner	50	—	0
FOP spot air conditioner	6	R32	675
Spot air conditioner(S)	45	R407C	1770
Spot air conditioner(Y)	32	R407C	1774

Resource Management (reference for 3.2)

Reuse and recycling of procurement items and goods

[Unit: weight in tonnes]

Area		Total weight of procured items	Total weight of procured items that were reused or recycled				Total weight of procured items that were used for energy recovery	
			Reused + Recycled		Reused	Recycled		
			Weight	Percentage			Weight	Percentage
Items procured through lease, rental	Fixtures and furniture	2,279	2,279	100.00%	2,279	0	0	-
	Consumer appliances	740	740	100.00%	740	0	0	-
	Electronic equipment	188	188	100.00%	188	0	0	-
	Medical equipment	131	131	100.00%	131	0	0	-
	Sporting equipment	1,904	1,904	100.00%	1,904	0	0	-
	Other venue equipment	1,052	1,052	100.00%	1,052	0	0	-
	Subtotal	6,294	6,294	100.00%	6,294	0	0	-
Items procured through purchase	Fixtures and furniture	856	856	100.00%	852	4	0	-
	Consumer appliances	27	27	100.00%	27	0	0	-
	Electronic equipment	247	247	100.00%	244	3	0	-
	Medical equipment	0.3	0.3	100.00%	0.3	0	0	-
	Sporting equipment	4,215	4,210	99.89%	4,079	131	5	0.11%
	Other venue equipment	1,307	1,307	99.97%	1,032	275	0.4	0.03%
	Subtotal	6,652	6,647	99.92%	6,234	413	5	0.08%
Items procured during construction work	Air conditioning, water heater, modular bathrooms etc.	3,168	3,168	100.00%	960	2,207	0	-
	Audience seats	5,872	5,872	100.00%	5,872	0	0	-
	modular housing, prefabricated structures, tents, containers, modular toilets	24,388	24,388	100.00%	24,388	0	0	-
	Subtotal	33,427	33,427	100.00%	31,220	2,207	0	-
Other items that require special attention for reusing or recycling	Venue decorations	200	192	96.00%	0	192	8	4.00%
Total		46,574	46,560	99.97%	43,748	2,812	13	0.03%

Reuse and recycling of Operational Waste

Category			Waste amount (tonnes)	Percentage	
Recycling	Glass bottles, cans		19	0.7%	62%
	Plastic bottles		246	9%	
	Plastics (recycling)		194	7%	
	Lunch box containers (plastic)		16	0.5%	
	Food waste (incl. non-edible part)	Animal feed	449	18%	
		Biogas(energy)	68		
	Paper containers		32	1.1%	
	Cardboards		436	15%	
	Newspapers, office papers		12	0.4%	
	Metal, plastics, mixed waste		262	9%	
	Batteries, fluorescent bulbs		2	0.1%	
	Waste cooking oil		12	0.4%	
	wood waste to be recycled to materials		16	0.6%	
Energy recovery	Plastics (energy recovery)		19	0.7%	38%
	Combustible waste (Tissues, chopsticks, paper packaging, etc. Incl. disposed masks and other items that require incineration due to COVID-19 measures)		1,070	37.5%	
Total			2,852	100%	

Sustainable sourcing (reference for 3.6)

Status of Sustainability-related certifications in Japan

Certified area/units by forest certifications

		2012	2015	2018	2021
FSC®*1	FM*3	397,000ha	394,000ha	409,000ha	417,000ha
	CoC*4	1,121	1,066	1,396	1,677
SGEC*2	FM	888,000ha	1,255,000ha	1,716,000ha	2,166,000ha
	CoC	379	343	810	880

＊1：Forest Stewardship Council

＊2：Sustainable Green Ecosystem Council

＊3：Forest Management certification

＊4：Chain of Custody certification

Notes：

- Figures are from FSC® "Facts & Figures", website of SGEC/PEFC Japan, and other information provided by scheme owners.
- Figures for FSC® are as of December of 2012, 2015 and 2018, and as of May of 2021. Figures for SGEC are as of the end of March of each year.
- Figures for CoC certificates of SGEC are the number of companies certified, and include the figures of PEFC-certified companies for 2018 and 2021. (PEFC and SGEC have been mutually recognised since 2016)

Certified units by GAP*5certifications for agricultural products

	2012	2015	2018	2021
ASIAGAP*6	1,679	2,519	1,415	2,403
JGAP*7			2,759	4,765
GLOBALG.A.P.	122	308	648	689*8

＊5：Good Agricultural Practices

＊6：JGAP Advance prior to August 2017

＊7：JGAP Basic prior to August 2017

Notes：

- Figures are from website of Japan GAP Foundation and other information provided by scheme owners.
- Figures for ASIAGAP and JGAP are as of the end of March of each year. Figures for GLOBALG.A.P. are as of the end of December of 2012, 2015 and 2018.

*8 is as of the end of December of 2020.

Certified units by GAP certifications for livestock products

	2012	2015	2018	2021
JGAP	–	–	26	218
GLOBALG.A.P.	0	1	3	3*9

Notes：

- Figures are from website of Japan GAP Foundation and other information provided by scheme owners.
- Figures for JGAP (Livestock and Livestock Products) are as of the end of March of each year. Figures for GLOBALG. A. P. are as of the end of December of 2012, 2015 and 2018.

*9 is as of the end of December of 2020.

Certified units by fishery eco-label certifications

		2012	2015	2018	2021
MEL*10	Fishery and Aquaculture	17	21	49	55
	CoC	21	28	47	73
MSC*11	Fishery	1	2	3	12
	CoC	60	76	199	303
AEL*12	Aquaculture	–	1	42	40
	CoC	–	0	17	21
ASC*13	Aquaculture	0	0	5	12
	CoC	0	7	90	156

＊10：Marine Eco-Label Japan
＊11：Marine Stewardship Council
＊12：Aquaculture Eco-Label
＊13：Aquaculture Stewardship Council
Notes：
- Figures are from website of Marine Eco-Label Japan Council, Japan Fisheries Resource Management Association and other information provided by scheme owners.
- Figures for MEL, MSC, AEL and ASC are as of the end of December of 2012, 2015 and 2018, and as of the end of June of 2021.

Membership of Roundtable on Sustainable Palm Oil

		2012	2015	2018	2021
RSPO	Member companies	N/A*14	38	117	237

＊14：No data available
Notes：
- Figures are from RSPO's "Impact Report 2019" and website of RSPO
- Figures are as of the end of December of 2015 and 2018, and as of the end of June of 2021.

Timber sourcing

【Ariake Gymnastic Centre】

Section using timber	Sourcing code	Amount (m3)	Remarks
Large beams【laminated timber】	Certification	1,670	Domestic timber
Exterior【sawn timber】	Certification	430	Domestic timber
Spectator seating【laminated timber】	Confirmation	100	Domestic timber
Stairs【plywood】	Certification	330	Domestic timber
Stairs【sawn timber】	Certification	70	Imported timber (Russia, Canada)
計		2,600	

【Village Plaza】

Section using timber	Sourcing code	Amount (m3)	Remarks
Pillars, beams, etc.【sawn timber, etc. 】	Certification	950	Domestic timber borrowed from municipalities across Japan
	Confirmation	250	
Pillars, beams, etc.【sawn timber, etc. 】	Certification	70	Domestic timber
計		1,270	

【Residential buildings at the Olympic/Paralympic Village】

Section using timber	Sourcing code	Amount (m3)	Remarks
Base of the wall【plywood】	Certification	120	Domestic timber, Imported timber (China, Malaysia)
	Confirmation	60	Domestic timber
Floor【plywood】	Certification	270	Domestic timber
	Confirmation	270	Domestic timber
計		720	

※Timber used in the interior work for the Games

【Olympic Aquatics Centre】

Section using timber	Sourcing code	Amount (m3)	Remarks
Stairs【plywood】	Certification	130	Domestic timber, imported timber
	Confirmation	40	Domestic timber
計		170	

※Including the temporary stairs for the Games.

【Sea Forest Waterway】

Section using timber	Sourcing code	Amount (m3)	Remarks
Roof deck【laminated timber】	Certification	10	Imported timber
Inner wall【sawn timber】	Certification	50	Domestic timber
計		60	

【Ariake Arena】

Section using timber	Sourcing code	Amount (m3)	Remarks
Underroof louver (wooden beams), wall louver【laminated timber】	Certification	750	Domestic timber
Floor【plywood】	Certification	90	Domestic timber, Imported timber
計		840	

※Including coated timber and flooring (base material)

【Ariake Tennis Park】

Section using timber	Sourcing code	Amount (m3)	Remarks
Truss beam【laminated timber】	Certification	430	Domestic timber (SGEC/PEFC-certified project)
Base of ceiling【laminated timber】	Certification	30	Domestic timber
計		460	

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【Olympic Stadium】

Section using timber	Sourcing code	Amount (m3)	Remarks
Ceiling	Certification	1,820	Domestic timber
Eaves【sawn timber】	Certification	150	Domestic timber
Interior【sawn timber】	Confirmation	40	Domestic timber
計		2,010	

Notes：

1 "Certification" refers to the forest certifications recognised in the section 3 of the Sustainable Sourcing Code for Timber.

2 "Confirmation" refers to the confirmation scheme designated in the section 4 of the Sustainable Sourcing Code for Timber.

Paper sourcing

Items	Sourcing code/Amount
Spectator tickets	Certification
Certificates of recognition	Certification : approx. 10,000 sheets Confirmation : approx. 20,000 sheets
Posters, fliers, leaflets	Certification : approx. 7.5 million copies Confirmation : approx. 50,000 copies
Official Programmes, etc.	Certification : 12 items
Toilet paper	100% recycled pulp : approx. 350,000 rolls Certification : approx. 2,000 rolls
Paper towel	100% recycled pulp : approx. 80,000 packs
Paper plates/cups	Certification : approx. 4 million
Casings for licensed products	100% recycled pulp : approx. 40 items Certification : approx. 110 items Confirmation : approx. 40 items

Notes :

1 "Certification" refers to the forest certifications recognised in the first sentence of the section 3 of the Sustainable Sourcing Code for Paper.

2 "Confirmation" refers to the confirmation scheme designated in the second sentence of the section 3 of the Sustainable Sourcing Code for Paper.

Sourcing of agricultural/livestock/fishery products

(Aggregate for fresh foods)

Unit : tonne

	Amount／Composition ratio		Domestically produced amount／ratio	
Total	547.6		330.7	(60%)
Main Dining Hall, Field Cast Break & Dining, Grab & Go	526.5		309.7	(59%)
Rice	68.5	(100%)		(82%)
Certification	56.3	(82%)		
Confirmation	0.2	(0%)		
Others	12.0	(18%)		
Vegetable	123.6	(100%)	123.6	(100%)
Certification	116.0	(94%)	116.0	
Confirmation	7.3	(6%)	7.3	
Others	0.3	(0%)	0.3	
Fruit	181.9	(100%)	74.8	(41%)
Certification	107.2	(59%)	0.1	
Confirmation	34.3	(19%)	34.3	
Others	40.4	(22%)	40.4	

	Meat	113.1	(100%)	52.5	(46%)
	Certification	28.9	(25%)	12.8	
	Confirmation	39.7	(35%)	39.7	
	Others	44.6	(39%)		
	Seafood	39.3	(100%)	2.1	(5%)
	Certification	38.9	(99%)	1.8	
	Confirmation	0.4	(1%)	0.4	
	Casual Dining	21.1		21.1	(100%)
	Rice	3.3	(100%)	3.3	(100%)
	Certification	3.1	(92%)	3.1	
	Confirmation	0.3	(8%)	0.3	
	Vegetable	6.2	(100%)	6.2	(100%)
	Certification	5.6	(90%)	5.6	
	Confirmation	0.6	(10%)	0.6	
	Fruit	3.8	(100%)	3.8	(100%)
	Certification	2.4	(64%)	2.4	
	Confirmation	1.4	(36%)	1.4	
	Meat	4.3	(100%)	4.3	(100%)
	Certification	3.0	(71%)	3.0	
	Confirmation	1.3	(29%)	1.3	
	Seafood	3.5	(100%)	3.5	(100%)
	Certification	2.6	(75%)	2.6	
	Confirmation	0.9	(25%)	0.9	

Notes：

1 The figures are on fresh foods used for food and beverage service in the Olympic/Paralympic Village. As Tokyo 2020 established the casual dining with the special purpose of disseminating Japanese food culture and independently procured domestic ingredients based on the results of a supply intention survey conducted with all the prefectures, figures on the casual dining are aggregated separately.

2 "Certification" refers to the certifications (GAP certifications and fishery ecolabel certifications) recognised in the section 3 of the Sustainable Sourcing Code for Agricultural/Livestock/Fishery Products.

3 "Confirmation" refers to the confirmation schemes designated in the section 4 of the Sustainable Sourcing Code for Agricultural/Livestock/Fishery Products that use e.g. prefectural GAP systems compliant with the GAP guidelines for agricultural products, GAP Acquisition Challenge System for livestock products, and Resource Management Plans for fishery products.

4 Whenever possible we sourced ingredients produced in Japan. Nevertheless, there were cases where we needed ingredients from overseas as they are not suitable for cultivation in Japan, they are necessary to respond to the dietary customs and nutritional needs of athletes, or we need to ensure reliable supply in large quantities (e.g. long-grain rice, tropical fruits such as bananas, red beef with less fat, bone-treated white fish).

Primarily for ingredients from overseas, it was difficult to procure ones with certification or confirmation required in the code which met conditions necessary for food and beverage service such as nutritional needs for athletes, reliable supply, dietary customs (such as halal), and price. The figures of such ingredients are aggregated as "Others". In addition, for a certain ingredient, while we procured a considerable amount of that ingredient with certification, we additionally procured the same ingredient without certifications to satisfy the urgent need. As the amount of original and additional procurement are not clearly separated, the total amount of this ingredient is aggregated as "Others".

5 As for ingredients procured in large quantities, we needed to procure them from multiple producers. As a result, an ingredient with certification and the same kind of ingredient with confirmation as in the code were mixedly loaded in a container to supply for the Games, which made it difficult to separate each amount. In these cases, the total amount of the ingredient is aggregated as "Confirmation stipulated in the code".

Palm oil sourcing

【Processed food】

Instant noodle	The company that supplied most products in this category for the Games are undertaking measures to procure sustainable palm oil through the use of certified oil and strengthening traceability, and aims to raise the procurement rate for palm oil that is assessed to be sustainable to 100% for their instant noodle business in Japan by FY2026. Based on these efforts, packages of a certain item bear the certification mark.
Confectionary and ice cream	The company that supplied most products in this category for the Games are working toward the target of raising the ratio of certified palm oil (excluding processed raw materials such as emulsifiers) to 100% by FYE 3/2024, and achieved approximately 70% in FYE 3/2021. In particular, for many items of chocolate confectionery and ice cream procured for the Games, the company achieved this target.
Frozen food and seasoning	The company that supplied most products in this category for the Games are working to achieve 100% sustainable procurement by fiscal 2030, defining palm oil certified by RSPO or traceable by their group to sustainable sources as a sustainable material. As of fiscal 2020 this company achieved a figure of approximately 70% (the rate of certified palm oil procurement was approximately 30%) in Japan.

【Chemical products】

Hand soap	Most of the products procured for the Games met the sourcing code for palm oil. (68 tons) In some cases, products that did not meet the sourcing code were procured due to lack of understanding of cleaning contractors on the certification system. (0.2 tonnes)

Summary of the reports received in the grievance mechanism

As of 30 November 2021

	Reception	Contents of the reports received	Response by Tokyo 2020
1	April 2018	The informant is asking for implementation of joint investigation with trade union representation on an occupational accident that occurred at a construction site.	After review and consultation, Tokyo 2020 determined that the reported case was not related to the Tokyo 2020 construction works. Nevertheless, Tokyo 2020 explained the informant on the recurrence prevention measures that had been taken at the construction site.
2	April 2018	It is claimed that a worker who participated in trade union activities was forced to retire unfairly at a wood processing factory in Malaysia that manufactures plywood.	After review and consultation, Tokyo 2020 determined that the reported case was not related to wood products used in the Tokyo 2020 construction works, and that the reported case was in court in Malaysia. Nevertheless, Tokyo 2020 proposed the said factory to meet the informant.
3	October 2018	It is claimed there is a case that could be against the Sourcing Code standard on "Ban on discrimination and harassment".	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products. Tokyo 2020 introduced to the informant an available contact set by another organisation, and also encouraged the organisation to appropriately deal with a report they would receive.

4	November 2018	It is claimed that timber which does not conform to Sustainable Sourcing Code for Timber may be used at a construction site of another organisation, and that Tokyo 2020 does not fulfill the responsibility to make this organisation respect with the Code.	After review and consultation, Tokyo 2020 determined that the reported case was not related to wood products used in the Tokyo 2020 construction works. Nevertheless, Tokyo 2020 provided the information that a certain log supplier alleged is not included in the actual supply chain of the timber used for the Games construction projects.
5	November 2018	It is claimed that timber which does not conform to Sustainable Sourcing Code for Timber may be used at a construction site of another organization (different organisation from No.4 above), and that Tokyo 2020 does not fulfill the responsibility to make this organisation respect with the Code.	The same as No. 4 above.
6	March 2019	It is claimed that advertisement of products by a private company should be improved as it's considered misleading.	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products.
7	April 2019	It is claimed that complaints about a product procured by a local government have not been adequately treated by the manufacturing company.	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products.
8	June 2019	It is claimed that workers' rights are violated at a factory in Thailand that is a subsidiary of an electrical equipment manufacturing company, through illegal lock-out of labour union members and other inappropriate behaviours.	After review and consultation, Tokyo 2020 determined that electrical equipment manufactured by the factory in question had not been procured by Tokyo 2020, and found that the reported case was in court in Thailand. Tokyo 2020 had a meeting with the parent company of the factory and got explanation that the factory has been taking necessary actions.
9	August 2019	It is claimed that private security company's employees were forced to retire from the company.	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products.
10	October 2019	The report is about the site of construction project Tokyo 2020 is responsible for, and includes claims as follows; - workers are working long hours in a harsh condition under hot weather - protective equipment for heat stroke prevention is not sufficiently provided - there are not uniform rules nor supervisory systems to ensure occupational safety environment, based on the ILO Convention.	After review and consultation, Tokyo 2020 determined this report was within the scope of the Mechanism and established an Advisory Panel to address the issue. With a delay due to COVID-19, Tokyo 2020 conducted interviews with the informants and the company in question respectively as well as on-site inspection for fact-finding. Since facts of non-compliance with the Sourcing Code were not found, Tokyo 2020 finished the process.
11	October 2019	The report is about the site of construction project Tokyo 2020 is responsible for, and	After review and consultation, Tokyo 2020 determined that this report did not fall under the

		includes claims as follows; - workers are working long hours in a harsh condition under hot weather - protective equipment for heat stroke prevention is not sufficiently provided - there are not uniform rules nor supervisory systems to ensure occupational safety environment, based on the ILO Convention.	scope of the Grievance Mechanism as the contract of the project was made prior to the development of the Sustainable Sourcing Code. Tokyo 2020 provided the informant with the information about the safety policy developed with delivery partners and the safety measures taken by the construction company in question.
12	June 2020	It is claimed that palm oil used in processed food products is related to problems such as illegally established plantations, deforestation, and violation of land rights.	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products.
13	April 2021	It is claimed that a company does not accept responsibility on industrial accidents that occurred at its factory while collective bargaining has been conducted with the company regarding compensation for damages.	After review and consultation, Tokyo 2020 determined that the reported case was not related to products or services procured by Tokyo 2020, or licensed products.
14	July 2021	It is claimed that palm oil used in processed food products is related to problems such as illegally established plantations, deforestation, and violation of land rights.	After review and consultation, Tokyo 2020 determined this report was within the scope of the Mechanism and established an Advisory Panel to address the issue. Tokyo 2020 developed an investigation plan to verify the alleged points in the report, taking advice from the Advisory Panel. Since there were many plantations/mills mentioned in the report, Tokyo 2020 decided to prioritise them in the investigation. Tokyo 2020 further collected information on the plantations and mills in question. Tokyo 2020 contacted organisations familiar with the local area to ask for an interview.
15	August 2021	It is claimed that the informant faced harassment of unpleasant remarks by a contractor staff at a competition venue.	It was found that this contractor was directly contacted by the same informant outside of this Mechanism, and met her in August to apologize and explain measures to prevent recurrence. Tokyo 2020 requested the contractor to take measures to prevent harassment by their staff engaged in the Games. Tokyo 2020 confirmed the contractor took the required action. In parallel, Tokyo 2020 contacted the informant again, and was informed that the informant did not mean to demand further action, as the informant received apologies from the contractor and the staff concerned, as well as Tokyo 2020 would require the contractor to take preventive measures. Therefore,

			Tokyo 2020 terminated the response of this Grievance Mechanism.
16	September 2021	It is claimed that endangered species habitat is destroyed in forests of Australia that provide raw materials for concrete formwork plywood.	After review and consultation, Tokyo 2020 determined that this report was within the scope of the Mechanism and established an Advisory Panel to address the issue. Tokyo 2020 developed an investigation plan to verify the alleged points in the report, taking advice from the Advisory Panel. Tokyo 2020 interviewed the informant for more information on the contents of the report. Tokyo 2020 further collected information on local forest management systems and endangered species, and conducted interviews with the local forest management organisation.
17	November 2021	It is claimed that there are forced labour and other problems at plantations of specific companies based in Malaysia.	Tokyo 2020 received the report.
18	November 2021	It is claimed that dozens of palm plantations are being developed illegally, some of which are without legal business licenses.	Tokyo 2020 received the report.

Opinions from stakeholders interested in sustainable sourcing*

Summary of opinions to Tokyo 2020	Stakeholder type	Our thoughts on the issue
Tokyo 2020 should additionally require to avoid caged/bonded/overcrowding breeding in the sourcing code for livestock products.	NGO	As a result of active discussions listening to various opinions on animal welfare in developing the sourcing code for livestock products, we decided to adopt "Animal Welfare-oriented Livestock Management Standards" which is a domestic guideline in line with the international code of the World Organisation for Animal Health (OIE). Animal welfare should be a comprehensive effort in feeding management. It needs not only producers' efforts in infrastructure investment but also consumers' understanding on the impact to the price of livestock products. While it must take time, important is to promote producers' efforts through gaining the understanding from producers and consumers on merits of animal welfare, not through prohibiting certain breeding systems.
Tokyo 2020 should ensure that ivory products will not be gifted to Games participants nor sold as licensed products. Tokyo 2020 also should educate athletes and teams that export of ivory is illegal.	NGO	As we acknowledged that it is prohibited to bring ivory products out of Japan, we did not gift any ivory products to participants coming to Japan, nor use ivory in our licensed products. Tokyo 2020, in collaboration with TMG, cautioned athletes and other participants not to take ivory products out of Japan.
Tokyo 2020 should review the sourcing	NGO	Even before the decision to postpone the Games, caterers had been

code for fishery products, as the Games postponed.		working to ensure the delivery of food services, selecting food items and suppliers, based on the current sourcing codes. As we had to make the best use of what had been prepared so far in order to deliver the Games effectively, we did not revise the sourcing codes.
The challenges on timber sourcing we pointed including treatment of timber from forest conversion should be recorded in the report so that they can be referred to by companies and other organisations as lessons for future procurement.	NGO	While the initial version of the Sustainable Sourcing Code for Timber did not prohibit the use of timber that is harvested as forests are converted for other use including agriculture, road construction, residence, and mining under planned management, we took a review process to improve it engaging and listening to relevant stakeholders. After further discussions, we revised the code to restrict the use of timber derived from conversion of forest to non-forest area such as farmland with the intention of contributing to curbing deforestation. As this process of the revision is described in the Sustainability Progress Report and this report, we hope that various organisations will refer to them in the future. In recent years, initiatives in sourcing of sustainable timber has increased steadily. Some companies established their own policies of not sourcing timber that is harvested in the process of converting forests to agricultural land. While what should be emphasised in sourcing timber will change with the times, but as the climate change issue is becoming more serious and forest conservation is becoming more important, we hope to see more organisations addressing timber sourcing that can contribute to curbing deforestation, by referring to the discussions on timber sourcing for the Games.

* This table shows the opinions received after the decision to postpone the Games. Please see Sustainability Pre-Games Report for the opinions received before it.

Venue Development (reference for 3.7)

Reuse and recycling

Material	Venue and quantity
Recycled crushed stone (Recycled crushed run, recycled mechanically stabilized crushed stone)	・Olympic Stadium 140,787 m^3 ・Musashino Forest Sport Plaza 3,489 m^3 ・Ariake Arena 11,674 m^3 ・Ariake Gymnastics Centre 20,748 m^3 ・Ariake Tennis Park 20,390 m^3 ・Oi Hockey Stadium 764 m^3 ・Sea Forest Waterway 9,559 m^3 ・Kasai Canoe Slalom Center 13,869 m^3 ・Yumenoshima Park Archery Field 4,803 m^3 ・Tokyo Aquatics Centre 63,008 m^3
Concrete manufactured using recycled aggregate	・Musashino Forest Sport Plaza 157 m^3 (Class L recycled aggregate) ・Ariake Arena 1,758 m^3 (Class L recycled aggregate) ・Ariake Gymnastics Centre 175 m^3 (Class L recycled aggregate) ・Ariake Tennis Park 450 m^3 (Class L recycled aggregate) ・Oi Hockey Stadium 307 m^3 (Class L recycled aggregate) ・Sea Forest Waterway 48,776 m^3 (Class H recycled aggregate) ・Kasai Canoe Slalom Center 5,284 m^3 (Class L and H recycled aggregate) ・Tokyo Aquatics Centre 978 m^3 (Class L recycled aggregate)
Recycled steel using electric furnaces	・Ariake Arena (Steel such as reinforcing bars) 8,828t (H-section steel etc.) 924t ・Ariake Gymnastics Centre (Steel such as reinforcing bars) 2,286t (H-section steel etc.) 1,388t (Steel plate) 207t ・Ariake Tennis Park (Steel such as reinforcing bars) 2,028t (H-section steel etc.) 525t (Steel plate) 16t ・Oi Hockey Stadium (Steel such as reinforcing bars) 786t ・Sea Forest Waterway (Steel such as reinforcing bars) 1,260t (H-section steel etc.) 880t (Steel plate) 60t ・Kasai Canoe Slalom Center (Steel such as reinforcing bars) 1,139t (H-section steel etc.) 95t (Steel plate) 9t ・Tokyo Aquatics Centre (Steel such as reinforcing bars) 7,125t (H-section steel etc.) 5,651t
Ceramic tiles manufactured using recycled materials	・Olympic Stadium 1,292 m^2 ・Musashino Forest Sport Plaza 82,663 m^2 ・Ariake Arena 8,479 m^2 ・Ariake Tennis Park 2,957 m^2 ・Tokyo Aquatics Centre 20,438 m^2
Vinyl flooring manufactured using recycled materials	・Olympic Stadium 3,974 m^2 ・Musashino Forest Sport Plaza 7,536 m^2 ・Ariake Arena 6,933 m^2 ・Ariake Tennis Park 8,726 m^2
Secondary concrete products manufactured using eco-	・Musashino Forest Sport Plaza 10,792 ・Ariake Arena 3,723

cement	・Ariake Gymnastics Centre　7,126 ・Ariake Tennis Park　1,963

Note: Material requirements are based on Japan's Policy on Promoting the Procurement of Environmentally Friendly Materials(February 2017) and the Policy for Procurement of Eco-Friendly Goods and Services of the Tokyo Metropolitan Government(Public Works)

Source: Summarized based on the Tokyo 2020 Olympic and Paralympic environmental impact assessment by TMG.

Aquatic environment

Venue	Planned service water use
Olympic Stadium	Approx.92 m^3/ day
Musashino Forest Sport Plaza	Approx.108 m^3/day
Ariake Arena	Approx.74 m^3/ day
Ariake Gymnastics Centre	Approx.18.5 m^3/ day
Ariake Tennis Park Clubhouse and indoor courts Show Court 1	Approx. 33 m^3/ day
Oi Hockey Stadium	Approx. 5 m^3/ day
Sea Forest Waterway	Approx. 4.7 m^3/ day
Tokyo Aquatics Centre	Approx. 38 m^3/ day

＊The figures were the total planned amount of rainwater and recycled water for non-potable service water needs used as miscellaneous water (maximum usable amount), and the actual amount used varies depending on the usage situation and the like.

Source: Summarized based on the Tokyo 2020 Olympic and Paralympic environmental impact assessment by TMG.

Landscape greening and biodiversity

Venue	Green space area	Note
Olympic Stadium	Approx. 24,000 m^2	
Musashino Forest Sport Plaza	Approx. 12,220 m^2	Including the adjacent West Stadium.
Ariake Arena	Approx.　7,117 m^2	Planned value including post-Games implementation
Ariake Gymnastics Centre	Approx.　7,500 m^2	Planned value including post-Games implementation
Ariake Tennis Park	Approx. 44,500 m^2	Planned value including post-Games implementation
Oi Hockey Stadium	Approx. 62,230 m^2	Pre-Games performance value at Oi Central Seaside Park Sports Forest site
Sea Forest Waterway	Approx. 7,585 m^2	Actual value Pre-Games. In addition, green space will be improved post-Games.
Kasai Canoe Slalom Center	Approx. 15,399 m^2	Planned value including post-Games implementation
Yumenoshima Park Archery Field	Field lawn：11,536 m^2	
Tokyo Aquatics Centre	Approx. 81,461 m^2	Planned value including post-Games implementation at Tatsumi Seaside Park site

Source: Summarized based on the Tokyo 2020 Olympic and Paralympic environmental impact assessment by TMG.

TOKYO 2020

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