1. Enforcement of the crisis management systems

1. Overview

The Tokyo 2020 Games have been postponed one year due to the COVID-19 pandemic. In order to lead the Games to success, we collaborate with related organizations and implement necessary measures against infection diseases, including the establishment of an environment from athletes' entry into Japan and departing from Japan and awareness-raising on behavioral patterns based on basic rules.

In addition, in order to ensure the safety and security of all visitors to the Tokyo 2020 Games, we identify risks from the perspectives of infection diseases control, security measures, cybersecurity, and disaster response, formulate guidelines for handling various situations and conduct practical training.

In addition, we establish a crisis management system for safety and security that unites public and private sectors by strengthening cooperation with related organizations such as the national government and the Tokyo 2020 Organizing Committee and clarifying the division of roles. Also, the City Operation Center is set up during the Games to support smooth Games operation and alleviate the impact on the life of Tokyo residents.

2. Legacy in a nutshell

Thorough measures against COVID-19 will be taken for the Games, a crisis management system that unites public and private sectors will be established and the City Operation Center will support the operation of the Tokyo 2020 Games so as to ensure safety and security during the delivery of the Games.

In addition, the crisis management system and know-how will continue to be utilized after the Games, and the safest city in the world where everyone can live with peace of mind will be realized, and the disaster prevention and disaster response capabilities of Tokyo will be transmitted to the world.

Stakeholders	The Tokyo 2020 Organizing Committee, the national government, private companies, etc.
Type of legacy	Safety and security
Geographical scope	Tokyo
Timing scope	Long term
Responsible for implementation	TMG
Source of legacy	Candidature file, Action Plan for 2020, Future Tokyo:

	Tokyo's Long-Term Strategy
Associated SDGs	1- No Poverty, 3- Good Health and Well-Being, 6- Clean Water and Sanitation, 9- Industry, Innovation, and Infrastructure, 11- Sustainable Cities and Communities, 13- Climate Action, 16- Peace, Justice and Strong Institutions, 17- Partnerships

3. Development

(1) Why

Prior to the decision to host the Games, TMG has promoted the sharing of information on international terrorism to protect the citizens from terrorism, but the Tokyo 2020 Games will be an event that attracts attention from all over the world, and security measures in anticipation of the occurrence of terrorism will be required more than ever.

In addition, as in previous Games, cyber-attacks[*] targeting the important infrastructures such as competition venues and electric power supply are expected. Therefore, TMG, municipalities, the Metropolitan Police Department, the national government, private companies, etc. need to cooperate and collaborate with each other to strengthen the response to cyber-attacks.

Moreover, a major confusion is expected if a large-scale earthquake occurs or a large typhoon hits Japan, so countermeasures against disasters and infectious diseases are necessary.

To make the Tokyo 2020 Games, which was postponed due to the COVID-19 pandemic, an opportunity to make the spark of hope, we need so steadily implement preparations to manage the Games to give everyone a peace of mind, including measures against infectious diseases.

(2) When

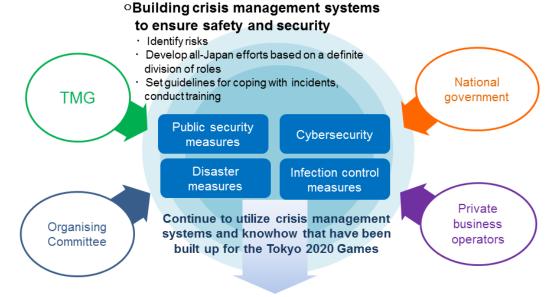| FY2017	The "Handling Guidelines to Ensure Safety and Security of Tokyo 2020 (First Edition)" were formulated *These guidelines describe various risks extracted in anticipation of the delivery of the Games and stipulate the policies for dealing with various situations and the subject / content of activities
	The "Basic Policy Concerning City Operations during the Tokyo 2020 Games" was formulated *This policy stipulates basic ideas such as the establishment of the "City

	Operation Center" regarding initiatives for city management implemented by TMG during the Games
FY2018	The "Tokyo Safety and Security Promotion Conference for the Tokyo 2020 Games" was established
	On-site training on anti-terrorism for the Tokyo 2020 Games was implemented
	The safety and security symposium for the Tokyo 2020 Games was held
	The "Operational Plan for the Tokyo 2020 Games City Operation Centre" was established *This plan defines the management system, organizational structure and the overview of operation of the City Operation Center set up by TMG, with the aim of supporting smooth Games operations and alleviate impact on the residents of Tokyo during the Tokyo 2020 Games
FY2019	The "Handling Guidelines to Ensure Safety and Security of Tokyo 2020 (Second Edition)" were released *Revised as the "Guidelines (Second Edition)" after the verification through on-site training, map training conducted in FY2018, and hearing of opinions from expert advisors, etc.
	The "Operational Plan for the Tokyo 2020 Games City Operation Center(Second Edition)" was established *Revised as the "Management Plan (Second Edition)" after the verification of the organizational system, communication channels and judgment standards, etc., through on-site training, using test events
FY2020	Deliberations at the "Coordination Meeting on COVID-19 Countermeasures at the Tokyo Olympic and Paralympic Games" were released as an interim report *In the three categories of athletes, Games personnel and spectators, countermeasures against COVID-19 were reorganized by scene (entry into Japan, logistics, venues, etc.)
FY2021	The Tokyo 2020 Playbooks (rule books) that stipulate rules that should be adhered to by the participants of the Tokyo 2020 Games were officially released (IOC, IPC and the Tokyo Organising Committee of the Olympic and Paralympic Games) *The playbooks were formulated after discussions between IOC, IPC, Organising Committee, TMG and the Japanese government

(3) Who

    TMG

(4) How

Building Crisis Management Systems [1]

○**Building crisis management systems to ensure safety and security**
- Identify risks
- Develop all-Japan efforts based on a definite division of roles
- Set guidelines for coping with incidents, conduct training

TMG

National government

Organising Committee

Private business operators

Public security measures

Cybersecurity

Disaster measures

Infection control measures

Continue to utilize crisis management systems and knowhow that have been built up for the Tokyo 2020 Games

Carry on the efforts to help Tokyo build itself as a city where everyone can live with peace of mind

① **Measures against infectious diseases**

    a. COVID-19 countermeasures to secure safety and security of the Games

○ Based on the examination performed at the "Coordination Meeting on COVID-19 Countermeasures at the Tokyo Olympic and Paralympic Games", we collaborate with relevant organzations to take necessary countermeasures for the Games including protection measures at ports and airports, infection control measures at competition venues and the Olympic and Paralympic Village, and ensuring the provision of health and medical services.

○ We establish and disseminate rules and manners to be observed by spectators in the last one mile, including the prevention of droplets, avoiding the "three Cs" (closed spaces with poor ventilation, crowded places, and close-contact), balancing the measures with heat countermeasures, and refraining from actions with high risk of infection.

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[1] Towards 2020　- Building the Legacy -（TMG）

○ We create a manual of infection prevention for City Casts and teach the contents in detail through training and other measures, aiming to provide a safe and secure activity environment.

b. Countermeasures against infectious diseases for the Games

○ For the Tokyo 2020 Games, we strengthen countermeasures against infectious diseases in collaboration with relevant organizations, including surveillance* and epidemiological investigations, established a manual and provided practical training.

○ For the Tokyo 2020 Games, we appoint advisors with expert knowledge on the countermeasures against infectious diseases and strengthen the infectious disease crisis management system to respond quickly and appropriately in case an outbreak of an infectious disease that has not occurred in Japan.

○ We take measures to reduce the risk of infection with measles or rubella for the City Casts.

c. Effective measures utilizing expert knowledge of the Tokyo *i*CDC

○ We set up the Tokyo *i*CDC with a standing headquarters function that takes effective and integrated infectious diseases control measures. The Tokyo *i*CDC provides evidence-based advice to the Tokyo Governor.

○ The Tokyo *i*CDC strengthens the intelligence function at normal times, and displays its emergency operation functions in case of a crisis, utilizing its functions for the normal times.

○ The Tokyo *i*CDC has a specialist board and teams, which make suggestions that will lead to actual policies on TMG's infectious control measures overall, based on evidence such as the occurrence trend of infection and the latest scientific knowledge.

○ In order to strengthen the survey and analysis, information transmission and human resources development functions, we collaborate with the national government, universities and research organizations, conduct analysis using a prediction model using AI*, etc. and ask advice from experts in the field of risk communication.

d. Measures against COVID-19 in collaboration with municipalities, public health centers, medical institutions, etc.

○ In order to deal with Tokyo residents' worries toward COVID-19 and take

appropriate response, we establish the Coronavirus Call Center, Tokyo Consultation Center for People with Fever, COCOA Dial and COVID-19 Measures Personal Support.

○ In order to establish a system in which all Tokyo residents who wish to get COVID-19 vaccine can get vaccinated, in collaboration with municipalities and medical organzations, we establish the vaccine team, communicate each other and establish the vaccination system.

○ We provide information on vaccines, support municipalities with vaccinations for residents, and take specialized response regarding side effects, so that Tokyo residents can be fully informed before reciving the vaccine.

○ In order to secure a testing and processing system of COVID-19, we designate medical institutions for examinations and testing and strengthen the test processing capacity of the Tokyo Metropolitan Institute of Public Health and private testing organizations. In addition, we conduct tests intensively for the workers of nursing care facilities by distributing PCR testkits.

○ In order to secure provision of medical services to COVID-19 patients while maintaining normal medical services, we promote measures to prevent infection, including securing hospital beds in accordance with the infection status, establish a consultation system for those who may be infected, securing medical personel and provision of support for them, and the provision of protective equipment. In addition, we secure designated hotels for recovery and provide support for patients staying at home.

○ In order to strengthen the public health center functions regarding COVID-19, we promote securing and nurturing human resources with specialist knowledge, such as public health nurses, establishiment of a patient inforamtion control center, operation of the base to provide support for public health centers, and digitalization of the works of public health centers.

e. Promoting COVID-19 countermeasures for the prevention of the spread of infection receiving cooperation from Tokyo residents and business operators

○ In order to transmit information in an easily understandable method and raise awareness among Tokyo residents, we launch the COVID-19 Information Website, provide support awareness-raising activities by local commnities, send out messages that effectively encourage behavioral change of Tokyo residents based on the infection status in Tokyo and seasonal events, conduct

surveys on the awareness of Tokyo resdients in the state of emergency situation, showing key points of infection control by facility, and create the Infection Prevention Handbook and the Handbook for Patients Staying at Home.

◯ In order to promote measures to prevent the spread of infection receiving cooperation from Tokyo residents and business operators, we ask refraining from unnecessary outings, closing of stores, shortening operation hours, and limiting the number of events. In addition, we issue the "COVID-19 Safety Sticker" indicating that the store implements infection control measures, organize the COVID-19 countermeasure leaders at restaurants, etc., and a project "Thorough Inspection Tokyo Support".

② **Security measures for anti-terrorism, etc.**

<Drills against terrorists at stations and airports >[2]

◯ We implement prompt firefighting activities while ensuring safety utilizing equipment, materials, and instruments such as drones at sites with explosion hazards.

◯ We promote anti-terrorism countermeasures, including control on the distributors of chemical substances that may be the material of explosives, through collaboration between the public and private sectors, the Anti-Terrorism Partnership, TOKYO.

◯ Targeting police officers with basic language skills, we implemented practical training to raise their language level enough to engage in interpreting services for police purposes.

◯ In order to ensure the safety and security of Tokyo residents, we utilize advanced technology in police activities to improve the capabilities to cope with terrorism.

◯ We introduce materials and equipment featuring highly advanced technologies such as the CBRN forensic technologies and video verification equipment to improve the capabilities to cope with terrorism.

◯ In the event of multiple terrorist attacks, etc., we organize an "Unified Task Forces" so as to carry out firefighting, rescue, and emergency activities in a

[2] New Tokyo. New Tomorrow. – The Action Plan for 2020 -（TMG）

unified manner at multiple sites attacked by terrorists, while ensuring the capabilities to cope with various types of disasters that may occur on a daily basis.

○ By installing security cameras in the metropolitan parks that are expected to be utilized for the Tokyo 2020 Games, we prevent crimes in advance, so as to ensure safety during the Games and improve the sense of security of Tokyo residents.

○ In order to prevent accidents in crowded areas, we utilize AI technologies to grasp the number of participants in real time and detect abnormal behavior.

③ **Cybersecurity**

○ Targeting critical infrastructure operators and operators related to the Tokyo 2020 Games, we implemented practical training in preparation for the occurrence of cyber-attacks.

○ In order to cope with increasingly sophisticated and complex cybercrimes etc., we develop and enrich investigation equipment and build a digital forensics support system so as to establish new analysis methods which contribute to the further sophistication and enhancement of the efficiency of analysis work.

④ **Disaster response such as an earthquake that directly hits the Tokyo area**
  A. Safe and secure delivery of the Tokyo 2020 Games

○ For foreign tourists who visit Japan for the Games, we implement emergency services and help desks at fire stations supporting multiple languages.

○ In order to strengthen the disaster response capabilities in the waterfront areas where the Games venues are concentrated, we renovate the harbor fire station overseeing the Olympic and Paralympic Village and increase new-model fireboats (tugboat type).

○ We implement thorough on-site inspections at competition venues, stations, and accommodation facilities, and promote fire drills for self-defense. In addition, we formulate safety standards for large-scale production using fire at the opening ceremony.

○ In order to establish a prompt evacuation guidance and rescue system, etc., we utilize a video location information sharing system that shows the activity status of firefighters, etc., and carry out special vigilance at competition venues, etc.

○ We introduce the fire rescue task forces (Hyper Rescue), fireboats, helicopters, etc. to carry out vigilance through cooperation among land, sea, and air fire

control services.

○ In order to promptly cope with fires and emergency / rescue that occur outside competition venues, etc., including disasters in mountains and transportation of patients in the Tokyo islands, we expand the deployment of helicopters during the Games and ensure an immediate response system.

B. Earthquake and water resistance measures in lowlands and seaside areas

○ For river facilities in the eastern lowlands[*], in preparation for storm surges of the Isewan typhoon class, we promote the development of storm surge defense facilities such as tide embankments and revetments (168 km in total). In addition, for major rivers such as the Sumida River, we promote the development of super embankments and gently sloping embankments in order to improve the safety against large earthquakes and the waterside environment.

<Example of the development of super embankments>[3]

○ In the eastern lowlands, in order to maintain the functions of each river facility and prevent inundation due to tsunami, etc. even in the event of an earthquake of the largest possible magnitude[*], we promote earthquake and water resistance measures for tide embankments and facilities including floodgates and pumping stations.

○ In order to protect the Koto triangular area with a particularly low ground surrounded by the Arakawa and Sumida Rivers from inundation caused by damage to the revetments due to a major earthquake, we promote the earthquake resistance reinforcement of the existing revetments of the rivers on the west side where the ground is relatively high, among the rivers in the Koto area. In the eastern region of the Koto triangular area, where the ground is particularly low, we promote development by a water level lowering method that shuts down rivers at floodgates, etc. and lowers the normal water level, and facilitate river channel maintenance in consideration of the river environment.

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[3] New Tokyo. New Tomorrow. –The Action Plan for 2020-

○ In order to prevent inundation due to tsunami and storm surge caused by the largest earthquake, in addition to earthquake resistance countermeasures for tide embankments and inner revetments on the coast of Tokyo Port, we promote earthquake and water resistance countermeasures for floodgates and pumping stations, etc.

○ In order to respond quickly and reliably in the event of an earthquake, tsunami, storm surge, etc., we strengthen the backup function by multiplexing communication networks to perform remote control of floodgates, etc., as well as reduce land locks[*] and introduce a remote-control system for them.

○ We analyze big data, including the water level, course of typhoons and air pressure using AI and other advanced technologies to accurately forecast the changes in water levels and support operation of water gates and other facilities.

○ We examine transmission methods of information on storm surge, etc. from the perspective of the recipient, and strengthen information dissemination by building a storm surge disaster prevention information system.

○ We work to strengthen disaster information by publicly releasing the open/close information of water gates and images of live cameras on the website by operating the general information system on storm surge for disaster prevention.

○ Due to the revision of the Flood Control Act, an expected inundation area map related to the largest possible storm surge was prepared and published. We set the dangerous water level caused by storm surge (storm surge special warning water level*), the baseline to give warning to Tokyo residents of the danger of flooding caused by storm surge.

○ We promote disaster-proof urban planning by evaluating initiatives for city planning on higher grounds in the eastern lowlands as efforts of public contribution and easing the limitation on the ratio of a building's area to the lot area, utilizing various systems of urban development.

C. Response to torrential rain that occurs frequently

○ In addition to improving watercourses that can deal with rainfall of 50 mm per hour, we promote the development of regulating reservoirs that can retain rainfall of up to 75 mm per hour (in the ward area), which is the enhanced target standard, and 65 mm per hour for the Tama area.

○ In the areas that incurred a massive damage, we strengthen the existing efforts by newly establishing a main sewage line that can deal with rainfall of 75 mm per hour, to reduce the inundation damage at an early date.

○ With the revision of the Flood Control Act, we updated the existing flood risk map of 14 locations showing the areas expected to be inundated when the rainfall reaches the maximum level predictable. We continue updating hazard maps created by municipalities based on the (revised) flood risk map.

○ We provide real-time and accurate rainfall information using high-performance radar by the "Tokyo Amesh".

○ We strengthen communication of flood information through integrated display of the rainfall level, water level and camera images, link with the meteorological radar, public release of images taken by live monitor cameras and provision of flood disaster information to information service providers using the flood disaster general information system.

○ We promote consideration of expanding the scope of rivers for which flood warning is issued, to strengthen communicating and strengthening of flood disaster information that will lead to the evacuation of residents.

○ We promote consideration of wide-area evacuation measures at the "Review Meeting on Wide-Area Evacuation in Flood Disaster in Tokyo Metropolitan Area" attended by representatives of the national government and related organizations, etc.

○ In order to raise awareness toward early evacuation in case of a flood disaster, we developed the "Flood Disaster Risk Map" to show flood disaster risk caused by floods, storm surge or landslides at certain locations in Tokyo in a visually recognizable way and installed it on the "Disaster Preparedness Tokyo App".

○ We promote diffusion and expansion of awareness toward wind and flood damage so that each of Tokyo residents can evacuate safely and appropriately in case of a wind or flood disaster, we distribute the "Tokyo My Timeline" and hold seminars to instruct how to create "My Timeline".

<Tokyo My Timeline>[4]

○ We develop the "Tokyo My Timeline" app with specifications that enable easy creation of the timeline, taking advantage of the characteristics of the app, aiming to increase opportunities for each Tokyo resident to create "My Timeline".

D. Enrichment and strengthening of disaster prevention measures through public rescue and assistance

[4] Tokyo Metropolitan Government's website on disaster prevention information:
https://www.bousai.metro.tokyo.lg.jp/mytimeline/1006345/index.html

○ We strengthen the functions of the Tokyo Disaster Response Headquarters and formulate the Tokyo Disaster Support Reception / Provision Plan, and promote the strengthening of disaster response capabilities through verification and review via training, etc.

○ For metropolitan parks (disaster prevention parks) that are positioned in the disaster prevention plan, etc., we develop facilities for disaster prevention such as emergency power generation equipment to support rescue team activities and ensure the safety of evacuees from large-scale rescue activity bases and parks related to the Tokyo 2020 Games.

○ We created the "TFD HQ Rescue Operation Forces ", a new firefighting unit which enables early detection of disaster situations and early start of rescue activities, leading with drones and all-terrain activity vehicles, etc., even at sites which is difficult for firefighting teams to enter in the event of a large-scale disaster such as an earthquake or water disaster.

○ At the crisis management network meeting where overseas cities participate, in order to improve the crisis management capabilities of participating cities, each city shares its various experiences and know-how related to crisis management, such as responses to natural disasters, terrorism, and large-scale accidents.

⑤ **Maintenance of urban functions during the Tokyo 2020 Games**

○ For the Tokyo 2020 Games, we set up the City Operation Center to support smooth operation of the Games and reduce impacts on the lives of Tokyo residents. The Center has two functions: general coordination and communication regarding the Games management and dealing with matters around the competition venues.

○ We proceed with the development of the competition venues in preparation for the Games, check operational aspects such as security through test events[*], etc., and carry out preparation for the Games steadily and efficiently.

(5) Benefits

Based on the following achievements, a crisis management system will be established through collaboration between the public and private sectors, and the Tokyo 2020 Games will be delivered smoothly in a safe and secure manner with maintenance of city functions. The crisis management system and know-how will continue to be utilized after the Games, leading to the city development in Tokyo where everyone can live with peace of mind.

○ The development and functional enhancement of the harbor fire station in the Olympic and Paralympic Village area will be completed.

○ Fire prevention inspections such as on-site inspections will be conducted at the Games venues, stations, and accommodation facilities, etc.

○ An emergency response system during the Games will be established.

○ Disaster response capabilities in anticipation of earthquakes that directly hit the Tokyo area will be strengthened.

4. Facts and figures

Development and strengthening of functions of the harbor fire station in the Olympic and Paralympic Village area	Construction completed, and operation of the government building started
Fire-prevention safety measures at the competition venues, stations, and accommodation facilities (fire-prevention inspections such as on-site inspections)	・Usage inspections of newly-built competition venues (11 venues) was implemented ・Corrective guidance against violations of fire-fighting laws and regulations pointed out by on-site inspections in FY2017 was provided ・Self-defense fire prevention drills at competition venues (6 venues) were implemented
Establishment of an emergency response system during the Games (development of a warning system)	・Necessary number of guard vehicles and equipment were secured ・As the base of guard at the headquarters, the Tokyo Fire Department Operation Center was set up at the head office building
Establishment of an emergency response system during the Games (establishment of an	Operation of the emergency call reception system in multiple languages

emergency call reception system in multiple languages)	
Strengthening of disaster response capabilities in anticipation of earthquakes occurring directly under the Tokyo metropolitan area	The renovation works for the Disaster Prevention Center, etc. have been completed
Strengthening of disaster response capabilities in anticipation of earthquakes occurring directly under the Tokyo metropolitan area	Improvement of the effectiveness of the disaster response headquarters system by strengthening cooperation with municipalities through map-based drills, etc. Supporting formulation of the "Guidelines for Support Reception / Provision Systems for Municipalities in the Event of Disaster in Tokyo" in municipalities.

(Items in the table are achievements to March 2020 unless otherwise noted)

5. Explanation of Terms

Cyber-attacks	A combination of cyber terrorism (an electronic attack that causes core systems of critical infrastructure to malfunction and paralyzes social functions), including possible incidents related to it, and cyber intelligence (intelligence activities using information and communication technology)
Surveillance	To continuously monitor the disease occurrence status and pathogenicity holding status among animals, etc. for the purpose of preventing diseases and establishing effective measures. Specifically, to continuously collect and analyze information such as the patient occurrence status, pathogen isolation status, immunity holding status, etc.
AI	Software and systems that mimic the intellectual work that the human brain is doing with computers. Specifically, it refers to computer programs that can understand the natural

	language used by human beings, make logical inferences, and learn from experience.
Eastern lowlands	An area in the eastern part of Tokyo where the ground height is low and there is a risk of flooding due to storm surges (generally A.P. +5 m or less). This refers generally the east side of the JR Keihin Tohoku Line, and includes the "generally zero meter zone", most of where is below the average high tide level (generally A.P. +2 m or less)
Earthquake of the largest possible magnitude	This includes subduction-zone earthquakes of magnitude 8.2, earthquakes that directly hit the Tokyo metropolitan area of magnitude 7.3, etc. as shown by the Tokyo Disaster Prevention Council
Land lock	A type of tide prevention facility which is also called land gate. It is a gate provided along the tide prevention line at a place where the tide embankment crosses the road or where the tide embankment cannot be continued, such as the entrance to a pier handling harbor cargos. The gate is normally open, but at storm surge the gate is closed to prevent damage from the storm surge
Storm surge special warning water level	A water level defined by the prefectural governors at which special precautions against the occurrence of disasters due to storm surges should be taken
Tokyo Amesh	A rainfall information system operated by the Tokyo Metropolitan Government Bureau of Sewerage for appropriate operation of pump stations and water recycling centers. For the general public, the system provides real-time information on the precipitation status in and around Tokyo on the Bureau's website
Test event	This refers to all events held for the purpose of testing whether facilities, personnel, management, etc. function normally, prior to the delivery of the Tokyo 2020 Games. It is stipulated that the event shall be held between 24 months to 2 months before the Games, and the contents of the event must be determined with the consent of the International Sports Federation that has jurisdiction over the relevant competition.

6. References

・Towards 2020 –Building the Legacy- (PR Edition)

・Towards 2020 –Building the Legacy - (Main Part)

・New Tokyo. New Tomorrow. –The Action Plan for 2020-

・Strengthening of Policies to Realize the "Three Cities" (FY2018)

・Strengthening of Policies to Realize the "Three Cities" (FY2019)

・Strengthening of Policies to Realize the "Three Cities" (FY2020)

・Future Tokyo: Tokyo's Long-Term Strategy

・Handling Guidelines to Ensure Safety and Security of Tokyo 2020 (Second Edition)

・Basic Policy Concerning City Operations during the Tokyo 2020 Games

・Operational Plan for the Tokyo 2020 Games City Operation Centre