

The Sustainable Optimism of the Tokyo Olympics 2020

By Mukesh Williams



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The 2020 Tokyo Olympics and Paralympics were held in 2021 in the midst of rising Covid-19 infections, public objections, bad weather and financial loss, and resulted in the highest number of gold medals for Japan in the history of its participation in the Games. Any event postponed and held at a later date acquires a tenacity of purpose and brings new passion and intensity. So all was not so bad about the summer Olympics. Riding a wave of 1964 nostalgia and reconstruction, when Yoshinori Sakai was a torchbearer at the opening ceremony of the Olympics in Tokyo, Japan did well. Sakai, who was born on Aug. 6, 1945 in Hiroshima two hours after the atomic bomb exploded, represented renewal and peace as he lit the Olympic flame. Japan is not a newcomer in organizing large scale international events nor working under duress, having also hosted the Winter Olympics in Sapporo (1972) and in Nagano (1998), so in 2020 there were great expectations and hope too in the initial stages of planning.

Reconstruction Olympics of Japan

The Olympic Games evolved to represent man's indomitable spirit to surmount the insurmountable. Japan wanted to live up to Kenji Miyazawa's great exhortation – "Be not defeated by the rain." During the period from July 23 to Aug. 8 when the Games were in full swing there were few or no spectators. It seemed that things had not been going well for Japan ever since the tsunami, earthquake and nuclear accident of 2011. There was a desperate need to rebuild economic and social infrastructure. This Olympics was aptly termed the "Reconstruction Olympics". Japan had a tradition of economic and social reconstruction. Though the 1940 Tokyo Games did not happen due to the Second Sino-Japanese War and World War II, they were aimed at a quick recovery from the 1923 Great Kanto Earthquake, while the 1964 Olympics demonstrated how Japan could rise from the ashes of war like a sphinx. Obviously, it required a tenacity of purpose to stage the Olympics during the continuing spread of the Covid-19 pandemic. In ancient times, the Games represented a challenge to the human spirit to overcome wars and epidemics. These latest Games made good use of modern technology to create a sickness-free zone to enable the events to be held safely. In that regard, the Tokyo Olympics 2020 could be seen as a benchmark for overcoming the difficulties of holding a global event safely.

The Obstacles to Competition

The Olympic Games have always been dogged by obstacles. Every organizer and every athlete knows this. Participants train for years to show their skills and win events to delight viewers from around the world. Even three millennia ago the organizers of the Olympics were battling with similar problems as they do today, but with much less technology and resources. The first record of the Olympics can be traced back to 776 B.C., around the time Greece was gripped by internal strife and infectious diseases, while many historians believe the Games started well before then. Pursued by wars and epidemics, the ancient king of Elis took to the Delphic oracle which advised him to hold a sports competition that would level regional conflicts and bring about truces.

The Tokyo Olympics 2020 faced numerous obstacles – the pandemic, public criticism, high costs and eventual postponement. It was perhaps the costliest Olympics in history, at about ¥3 trillion. But the prefectural governments and the International Olympic Committee (IOC) strived to overcome these impediments. The goal for Japan was much bigger: it was not just the staging of the Games but the social, economic and innovative possibilities it would open up for the country. The local organizers were interested in creating a high tech and sustainable model of urban living and economic growth. They wanted to show to the world another Japanese economic "miracle".

The pressure on Japanese organizers and athletes was accordingly tremendous – to see the Games succeed overall and to achieve outstanding performances. The United States topped the medals table with 39 golds and a total of 113, while China came second with 38 golds with a total of 88. Japan ended in third place, its highest-ever standing, with 27 golds and a total of 58 – a remarkable achievement given the much smaller size of its population. With the aim of encouraging more interest from younger people, and at the prompting of the host nation, IOC President Thomas Bach introduced five new sports at these Games – karate, skateboarding, sport climbing, baseball and surfing – to make a total of 34 sports.

Local Response to a Global Event

Even amidst some public concern that the government was more focused on fighting the pandemic, the Olympic Games went ahead. They proved successful largely for two reasons: the determination of

prefectural governments that had worked for one and a half years to recalibrate the events, and the grit of local communities to showcase Japan's emergence from the tsunami and nuclear disaster a decade ago.

The Enduring Power of Enoshima Sailing

Sailing is not just a competition between human beings but often between human beings and nature. Sailing boats must negotiate turbulent waters and rough winds. They must play with headwinds and beam winds moving quickly in different directions. It requires dexterity to adapt to rapid changes in the environment and the maneuvers of competing teams. The teamwork necessary makes it an ideal sport for Olympic competition.

The prefectural government of Kanagawa had just finalized the relocation of 100 local sailing vessels and yachts to clear up Enoshima Yacht Harbor for the Olympic Games that would bring in 660 sailing vessels, as well as 250 sailors, 250 coaches and 160 judges. Though most of the Olympic sailors stayed at the Athletes Village in Tokyo, many coaches stayed at the Oiso Prince Hotel in Kanagawa which was about 30-40 minutes by car from Enoshima. Officials had to handle anti-corona measures, public disapproval and sailing preparations all at once. It was one of the largest projects undertaken by the prefectural government. The initial response of the owners to shifting their sailing vessels was positive but when they discovered they had to move their vessels to another pier then issues connected to the size of the vessels and the space in the pier became problematic. Some of the owners of the vessels were growing old and had found homes closer to the harbor where their vessels were anchored. There were other owners who wanted to be near their yachts as much as possible. Also, checking the anchored ships weekly to see that they stayed in good condition was an arduous task. So the appropriate remuneration from the Tokyo government for relocation, cartage and maintenance of 1,000 vessels was decided. But after the remuneration for the shifting was finalized and the contracts drawn up, they had to be changed. In February 2020, all contracts were cancelled and in March 2020 the Olympics was postponed.

The prefectural government had to deal with a new situation – to extend the contracts or write new ones. Half of the owners, according to one anonymous source, wanted to stay in the new place but the other half wanted to keep their vessels back. After a year when the new contracts were signed, only 700 owners remained. The rest had either given up yachting or were too old to redo the transfers. The anchorage for sailing boats had rusted over the years and the yard needed repairs. Though money was not in short supply, the work was phenomenal and the cost of waiting added to the expenditure. The original budget was ¥1.1 billion but with the postponement, it ended up at ¥1.9 billion. Since two prefectures, Kanagawa and Tokyo, were involved the task of mutual coordination and coordinating with clients was complex. But slowly as the Games came nearer they

Photo: Masahiro Nakamura



Enoshima Harbor

began to feel hopeful that things would finally work out.

Kuma's Living Tree Structure of the National Stadium

The controversy of replacing an international architect with a local one to design the national stadium was not just about the cost but sustainability and symbolism. The less than 20,000 square meter Japan National Stadium in Kasumigaoka Meiji-Jingu Park for the Tokyo Olympics was built to Kengo Kuma's cheaper design of ¥157 billion. The British-Iraqi architect Zaha Hadid had wanted an exorbitant sum of ¥196.5 billion, which was criticized by both the Japanese public and athletes. Kuma's National Stadium was a unique blend of Japanese tradition with sustainable architecture. Kuma loves to play with timber and wind flows. He believes that our traumatic age is no more about "expansion" but "intimacy and human experience". He felt that Japanese houses, shops and temples are traditionally made from wood and they must be represented in the creation of the stadium. He procured 47 types of wood from the

Photo: mu33



The New National Stadium was completed on Nov. 30, 2019.

country's 47 prefectures to underscore the significance and elegance of wood. He employed the ancient Japanese technique of cypress wood weaving to give strength to the structure to withstand earthquakes, called hell joints. The structure became a “living tree”, which allowed wind to circulate. Replacing air conditioning with wind tunnels created an abiding harmony with planet Earth. Since the number of spectators was drastically reduced, Kuma painted each seat in different colors to give the stadium an illusion of fullness. The stadium has 68,000 seats and cedar panels adorn its eaves. About 47,000 trees adorn the circulation spaces to make the stadium blend with the wooded surroundings.

Recycling a Sustainable Future

Sustainability is a buzzword today. But what does it actually mean and how does it enter the Olympics? Sustainability means a wise use of resources and recycling things. Therefore, it means to meet our social, environmental and economic needs without compromising the needs of future generations. It also means to recycle anything that can be recycled – cardboard beds, recycled plastic podiums, medals from phone metals. The idea of sustainability at the Games is based on the concept of recycling. From the venues and podiums used during the 1964 Games to uniforms and medals, all have been recycled. The Olympic Village itself was built on reclaimed land. The beds at the Olympic Village were made from reinforced cardboard, which will be recycled soon after the Games. The 5,000 Olympic medals were molded from precious metals extracted from electronic gadgets. Many people donated their used electronic devices such as old mobile phones for this purpose. During the two-year donation campaign, about 78,985 tons of such devices were collected. NTT

Docomo outlets collected 6.21 million mobile phones for this purpose. The Olympics also adopted the five Sustainable Development Goals in its agenda – zero carbon emissions, zero waste, supporting nature, upholding human rights and cooperating with all. The idea of the Olympics, “Be better together – for the planet and the people”, helps the push towards a sustainable world.

The Flame from the Past

The Olympic torch has eternally symbolized the burning flame of knowledge and life. The Olympic Games are therefore symbolic of the temporal journey of humankind from the past to the present in overcoming daunting obstacles. The 2020 Olympic torch used the design of cherry blossoms and the technology of the shinkansen. The cherry blossom, which is the national flower of Japan, symbolizes renewal and optimism, much needed in the time of the Covid-19 pandemic. The seamless flowing design of the torch molded from a single sheet of metal employed the cutting-edge technology used in constructing the bullet trains. Naomi Osaka, a four-time Grand Slam tennis star and advocate for the mental health of athletes, lighted the torch.

Hundreds of volunteers had been preparing for the dance to welcome the Olympic participants but when the Games were postponed they felt disappointed. Asao and Mitsuko Funasaki from Kanagawa wanted to join the opening ceremony of the Games as it fell on July 24, 2020, which was his 68th birthday, a significant event in Japan. He and his wife applied to be runners but their application was rejected. Asao desired to be a runner with the torch but the Olympics was postponed.

“We realized that since Enoshima was one of the host towns for

Photo: Japan SPOTLIGHT



The Olympic torch set up on Yume-no-ohashi (The Bridge of Dreams) during the Games.

Photo: Asao and Mitsuko Funasaki



Asao and Mitsuko Funasaki, local volunteers welcoming Olympic members

the event, we wanted to do our best to welcome the Olympic participants so Tokyo would be happy,” Asao Funasaki said. “In the midst of these hurdles, we were rehearsing our dance to welcome the participants but due to the pandemic the governor stopped it. Finally, after repeated requests from the locals the dance was reconstituted.” Funasaki and his wife danced on the bridge of Enoshima and the Olympics members saw them from their buses. “The Olympics members were so keenly watching us that it warmed our hearts,” said Mitsuko. “We prayed for the recovery of Fukushima from the March 11 tsunami. Farmers from Fukushima provided food to the Athletes Village to show the revival of Japan. Participants were given rice and peaches from Fukushima after 10 years and they realized how tasty they were. This lifted the ban on some products from Fukushima.”

The number of dancers was sharply reduced from 500 to 200. Most of those who were left were elderly men and women and they feared they might catch the coronavirus. But they all performed without getting infected. Though they could not join the actual events, they saw them on TV screens and cheered the teams. Funasaki and his wife supported, and helped establish a connection between Enoshima residents and the athletes. Both strongly felt that “It was wonderful to have the events.”

Hydrogen-Powered Olympics Gives Inkling of Future Society

The Japanese government hopes that the Tokyo Olympics will create a Japanese hydrogen society that can become fully sustainable. For the first time in the Olympic Games, hydrogen fuel was used to light the Olympic Torch and the cauldrons. The electricity used to generate the hydrogen fuel came from Fukushima solar panels. Japan is trying to move towards a sustainable energy future. Hydrogen fuel is seen by energy experts as a wonder fuel – it has no carbon emissions and can be produced through solar energy. Hydrogen fuel in cities is the non-polluting fuel for future vehicles, for heating water, for lighting homes and doing everything that conventional electricity does. Since hydrogen fuel burns in contact with oxygen it does not release carbon dioxide. If hydrogen fuel is created through solar power, it releases zero carbon as it releases energy when it comes into contact with oxygen. It is easy to store as fuel cells and can be used to fire combustion engines. Japan already has a national hydrogen strategy and increased R&D in this area to US\$300 million in 2019. The Tokyo Metropolitan Government has chosen Tokyo Technical University to set up a Research Centre for Hydrogen Energy-Based Society. Can hydrogen fuel reverse global warming and turn the world into a hydrogen-powered heaven?

The 1964 Olympic Games brought the new high-speed shinkansen train network to Japan. The intention of the Tokyo Metropolitan Government has been that the 2020 Games would make Japan into a hydrogen-dependent society. The Olympic Village embodied the spirit of “tradition and modernity”. It carried the stamp of Japanese-

ness but used hydrogen fuel cell power to heat and light up its dorms, cafes and gyms for 11,000 athletes. Now that the Games are over the Village facility will be transformed into hydrogen-powered living spaces with condominiums, schools, shops and gyms. Seiko Hashimoto, minister of state for the Tokyo Olympics and Paralympics, felt that the rationale of the Games during the pandemic was to create a sustainable model of living for the future.

With this aim in mind, a huge Toshiba-constructed hydrogen plant system was installed in Namie town in Fukushima Prefecture. The system can produce 900 tons of hydrogen annually by using 10,000 kilowatts of solar energy. The Kawasaki King Skyfront Tokyu REI Hotel uses plastic waste to generate hydrogen energy to create carbon-free electricity and hot water. Toyota Motor Corporation was involved in the Olympic Games as a partner to develop hydrogen-powered passenger cars. Its 500 FCEV MIRAI cars and 100 SORA buses, and many forklift trucks, ran on hydrogen power at the Olympic Village. The name SORA is a contraction of four words – sky, ocean, river and air. Each of these SORA buses transported 79 Olympic participants and experts to and fro. They ran on 10 high-pressure tanks that could store up to 600 liters of liquid hydrogen. The forklift trucks transported heavy equipment back and forth. To meet the daily need for hydrogen, 35 fuel stations were built in the city. The Tokyo government has planned to construct 80 hydrogen stations to fuel 100,000 FCEV vehicles by 2025. Toyota also designed a semi-autonomous vehicle with seat and handrail adjustments called e-Palette for the movement of 20 athletes during the Paralympic Games but it was withdrawn after it caused a minor accident. The IOC uses these same cars to move around at its headquarters in Switzerland.

Conclusion

Tokyo hopes that in the near future it will emerge as the first hydrogen-powered eco-friendly city in the world. If that happens, the sagacity and farsightedness of the Olympic Games organizers will become apparent. The Tokyo Olympics 2020 will be remembered for the determination of the Japanese to rise above the pandemic and reconstruct the nation. The Olympics demonstrated ways to create a sustainable urban environment fired by the power of hydrogen; it showed that unthinking consumption will exhaust the resources of the earth and leave very little for future generations; it revealed the technology of pollution-free travel; it demonstrated techniques for recycling metals and plastics, and using natural renewable resources; it created a new architectural design that was both green and eco-friendly; and it emphasized dialogue and communication in upholding the dignity of humankind to prevail against all odds. **JS**

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