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The 2016 Olympic Games: Health, Security, Environmental, and Doping Issues

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August 8, 2016

Congressional Research Service

7-5700

www.crs.gov

R44575

Summary

The 2016 Olympic Games will be held in Rio de Janeiro, Brazil, August 5-21, 2016, and will be followed by the Paralympic Games, September 7-18, 2016. Notably, these are the first games to be hosted by a South American city. Reportedly, 10,500 athletes from 206 countries will participate in the Olympics, including 555 athletes from the United States. Most Olympic events will take place in and around Rio de Janeiro. In addition to Rio de Janeiro, soccer matches will be held in the cities of Belo Horizonte, Brasília, Manaus, São Paulo, and Salvador.

Host countries and cities often have to deal with a variety of questions or issues, which is also true for Brazil and Rio de Janeiro. The list of issues or potential problems that might have implications for athletes, team personnel, and spectators participating in or attending the 2016 Rio Games includes the Zika virus, public safety threats, security concerns, and environmental conditions. It also bears noting that the act of hosting the Olympics may have implications for Brazil. Finally, doping is of particular concern this year because of revelations regarding a state-orchestrated doping scheme perpetrated by Russian authorities and sports organizations.

Each candidate city for the 2016 Games was required to address 14 themes in its bid, such as environment and meteorology, finance, security, medical services, and doping control. However, no one in 2009 could have foreseen the outbreak of the mosquito-borne Zika virus in late 2015, when Brazilian health officials noticed an increase in the number of infants born with microcephaly. Although some have called for the Games to be postponed or cancelled, the U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) have indicated the risk of international transmission due to the Olympic and Paralympic Games is low. The CDC has published specific recommendations for pregnant women, and the U.S. Olympic Committee (USOC) has taken steps to safeguard the U.S. Olympic team.

In the candidature file it submitted to the International Olympic Committee (IOC), the Rio 2016 Organising Committee for the Olympic Games stated that visitors to the country would be provided free health care. Additionally, Brazil committed to providing medical response teams and units at Olympic facilities. However, shortages of health care workers and supplies might compromise the medical services available.

Public safety and security are key concerns for visitors to Brazil, including Olympic competitors and spectators. The Department of State has noted that crime is a significant threat, and, during the 2014 World Cup, thieves targeted visitors near sports venues and other locales frequented by tourists. Although Rio de Janeiro has experienced significant improvement in public safety in recent years, some criminal activity has increased in the first half of 2016. With respect to security concerns and, specifically, terrorist threats, Brazil's Director of Counterterrorism reportedly has noted that the threat of terrorism has increased in recent months. In July 2016, the Brazilian police arrested 10 Brazilian nationals suspected of planning an attack during the Games. The national government, which is in charge of security for the Olympic Games, plans to muster a force of 85,000 personnel to provide security. U.S. citizens requiring assistance may reach out to the State Department.

Organizers of the Rio 2016 Summer Olympics and Paralympics have made many commitments to host Games in which environmental sustainability is integral to design and planning through implementation, review, and post-event activities. These commitments address issues such as impacts of public transportation, construction, and waste management, and needed water quality improvements. For some time, concern has focused on pollution of waters at venues that will host sailing, rowing, triathlon, and similar events, leading to fear that high levels of water pollution could harm the health of tourists and athletes, in addition to impacting the competitions

themselves. Organizers of the Games acknowledge that commitments related to sanitation and water quality will not be met before the Games begin.

The Brazilian government campaigned hard to win the right to host the 2016 Olympics, viewing the Games as an opportunity to showcase Brazil's economic and social progress and reinforce the country's image as a rising power. Brazil's international stature has generally declined in recent years, however, as the country has struggled to address deepening economic and political crises. While the Olympics could allow Brazil to highlight its potential and regain some of the prestige it may have lost in recent years, any problems that emerge are likely to reinforce negative perceptions some have of the country. The Games are unlikely to have much of an effect on Brazil's domestic political situation or economy. Nevertheless, a successful Olympics could strengthen the current government's hold on power and provide a temporary boost to Rio de Janeiro's economy. Most Brazilians are relatively pessimistic about the Olympics and believe they have brought more costs than benefits to the country.

While doping is a perennial concern, it has been, and is, of particular concern in the months leading up to the 2016 Rio Games. The release of two World Anti-Doping Agency (WADA) reports, in November 2015 and July 2016, has shown that Russian authorities and sports organizations engaged in doping schemes involving the Russian track and field team and Russian athletes competing in 2014 at the Winter Games in Sochi, Russia. The latter report also revealed a multi-year operation implicating, among other organizations, the Russian Ministry of Sport. The consequences of these reports include, among other actions and decisions taken by the appropriate international sports organizations, a ban on Russia's track and field team, which means the team will not be allowed to participate in the 2016 Games. Additionally, the International Olympic Committee (IOC) stated that the presumption of innocence does not apply to Russian athletes and established conditions other Russian athletes must meet to demonstrate they have clean doping records and thus be eligible to compete in Rio de Janeiro.

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Introduction

Jacques Rogge, President of the International Olympic Committee (IOC), announced on October 2, 2009, that Rio de Janeiro, Brazil, had been selected to host the Games of the XXXI Olympiad in 2016.¹ The selection of Rio de Janeiro to host the 2016 games marks the first time a South American city has been selected to host an Olympics. Rio de Janeiro was an applicant city for the 2012 Summer Olympics.² Rio de Janeiro does have experience hosting major international sporting events, however. The city hosted the 2007 Pan-American Games and the 2014 Fédération Internationale de Football Association (FIFA) World Cup.

The Olympic Games will be held August 5-21, 2016.³ It is expected that 10,500 athletes from 206 countries will participate in 42 sports, including 555 athletes on the U.S. Olympic team.⁴ Most events will be held at 32 competition venues in 4 main regions, or neighborhoods, in Rio de Janeiro: Barra de Tijuca (Barra), Copacabana, Deodoro, and Maracanã.⁵ **Figure 1** below shows the four neighborhoods and the specific venues located in each.

In addition to Rio de Janeiro (which has two soccer stadiums), soccer matches will be held in the cities of Belo Horizonte, Brasília, Manaus, São Paulo, and Salvador. **Figure 2** below shows all six cities.

For the first time, the 2016 Rio Games will feature a team consisting of athletes who are refugees. Created by the IOC's Executive Board, the Refugee Olympic Team (ROT) for the 2016 Summer Games has 10 members who were selected from a pool of 43 athletes. The origin countries of the ROT athletes are the Democratic Republic of the Congo (2), Ethiopia (1), South Sudan (5), and Syria (2). The IOC will ensure that the ROT receives uniforms, housing, and technical assistance (e.g., coaches and support staff). The Olympic flag and the Olympic anthem will be used for any official representations, such as possible medal ceremonies, involving ROT.⁶

¹ In addition to Rio de Janeiro, Baku, Azerbaijan; Chicago; Doha, Qatar; Madrid, Spain; Prague, Czech Republic; and Tokyo, Japan had submitted applications to the IOC to host the 2016 games. The IOC's Executive Board accepted Chicago, Madrid, Rio de Janeiro, and Tokyo as candidate cities. International Olympic Committee, "2016 Host City Election," at <https://www.olympic.org/2016-host-city-election>.

² International Olympic Committee, "2012 Host City Election," at <http://www.olympic.org/content/the-ioc/olympic-games-candidature-process/past-bid-processes/2012-host-city-election/>.

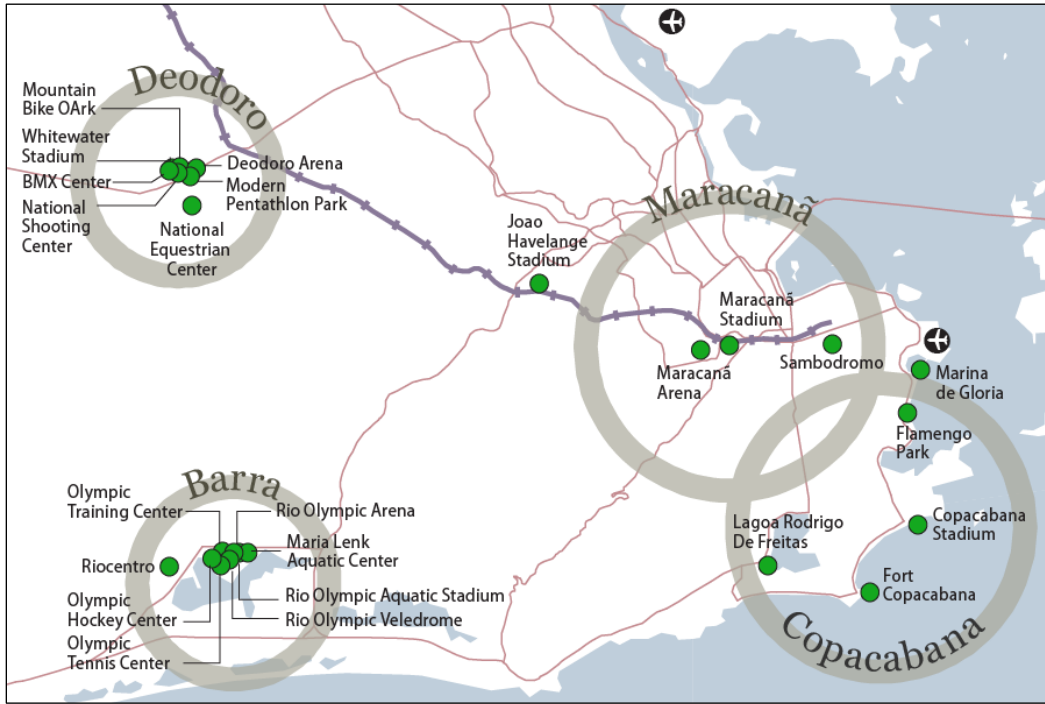
³ The Paralympic Games will be held in Rio September 7-18, 2016.

⁴ U.S. Olympic Committee, "U.S. Olympic Committee Announces 555-Member 2016 U.S. Olympic Team," July 23, 2016, at <http://www.teamusa.org/News/2016/July/23/US-Olympic-Committee-Announces-555-Member-2016-US-Olympic-Team>. Two sports—golf and rugby—return to the Olympics in Rio de Janeiro. IOC members voted on October 9, 2009, to readmit these two sports to the Olympic program. Previously, golf was included in the Olympic program in Paris (1900) and St. Louis (1904), and rugby was included in Paris (1904 and 1924), London (1908), and Antwerp (1920). In these four previous Olympics, each rugby team had 15 players. The Rio Olympics will have the sport "Rugby sevens," which means each team has seven players. International Olympic Committee, "Golf Poised to Make Long Awaited Return," March 29, 2016, at <http://www.olympic.org/news/golf-poised-to-make-long-awaited-return/248930>; International Olympic Committee, "Golf and Rugby – New Kids on the Block," March 17, 2016, at <http://www.olympic.org/news/golf-and-rugby-new-kids-on-the-block/248877>.

⁵ Rio 2016 Organising Committee for the Olympic Games, "Olympic Games," at <http://www.rio2016.com/en/olympic-games>.

⁶ International Olympic Committee, "Refugee Olympic Team to Shine Spotlight on Worldwide Refugee Crisis," June 3, 2016, at <https://www.olympic.org/news/refugee-olympic-team-to-shine-spotlight-on-worldwide-refugee-crisis>.

Figure 1. Olympic Venues within Rio de Janeiro
2016 Rio Games



Source: Created by the Congressional Research Service using data from the U.S. Olympic Committee and ESRI.

Figure 2. Olympic Venues for Soccer
2016 Rio Games



Source: Created by the Congressional Research Service using data from the U.S. Olympic Committee and ESRI.

Overview

Over the years, host countries and cities have had to deal with a variety of concerns, problems, or criticisms, and Rio de Janeiro is no exception. Separately or collectively, a variety of issues might pose risks to the health, safety, and general well-being of athletes and their families, team personnel, and spectators participating in or attending the 2016 Games. Chief among these are the Zika virus, public safety threats, security concerns, and environmental conditions. This report also discusses the possible implications of hosting the Olympics for Brazil and the issue of doping.

Each candidate city for the 2016 Games was required to address 14 themes in its bid—such as environment and meteorology, finance, security, medical services, and doping control. However, in 2009 no one could have foreseen the outbreak of the mosquito-borne Zika virus in 2016. The U.S. Olympic Committee (USOC) has stated publicly that the decision to participate in the 2016 Games is up to each member of the U.S. Olympic team, which will include approximately 550 athletes.⁷ In March 2016, the USOC announced that it had recently established an Infectious Disease Advisory Group consisting of three physicians who are infectious disease experts and who have experience managing “infectious disease in patient populations that frequently travel internationally.”⁸ The advisory group is to assist the USOC by establishing best practices for “the mitigation, assessment and management of infectious disease....”⁹ Other steps taken, or planned, by the USOC include making information available to athletes and the public via the Internet¹⁰ and providing Team USA athletes with mosquito netting, bug repellent, and informational materials.¹¹

The Rio 2016 Organising Committee for the Olympic Games described, in the candidature file it submitted to the IOC, the existing health care resources that could be used in support of the Games and committed to providing a series of Games-specific health services.¹² However, shortages of health care workers and supplies might compromise the medical services available.

Public safety is also a key concern, given the prevalence of criminal activity in and around Rio de Janeiro.¹³ More recently, as reported by the *Wall Street Journal*, criminals stole a truck loaded with broadcasting equipment for the Games, and athletes training in Rio de Janeiro have been robbed on the street.¹⁴ Although it does not mention the Olympics specifically, the State Department’s information page for travelers to Brazil cautions that the city of Rio de Janeiro continues to “experience high incidences of crime, including armed robberies.... Tourists are particularly vulnerable to street thefts and robberies in the evening and at night especially in areas

⁷ Karen Rosen, “Team USA Leadership on Zika: ‘Our Main Emphasis is Communicate and Educate,’” news release, March 7, 2016, at <http://www.teamusa.org/News/2016/March/07/Team-USA-Leadership-On-Zika-Our-Main-Emphasis-Is-Communicate-And-Educate>.

⁸ U.S. Olympic Committee, “U.S. Olympic Committee Creates Infectious Disease Advisory Group,” March 4, 2016, at <http://www.teamusa.org/News/2016/March/04/US-Olympic-Committee-Creates-Infectious-Disease-Advisory-Group>.

⁹ *Ibid.*

¹⁰ The website is available at <http://www.teamusa.org/Rio-Travel-Updates>.

¹¹ Karen Rosen, “Team USA Leadership on Zika: ‘Our Main Emphasis is Communicate and Educate.’”

¹² Rio 2016 Organising Committee for the Olympic Games, *Candidature File for Rio de Janeiro to Host the 2016 Olympic and Paralympic Games*, 2009, Vol. 3, n.p.

¹³ U.S. Department of State, Bureau of Diplomatic Security, Overseas Security Advisory Council, *Brazil 2016 Crime 7 Safety Report: Rio de Janeiro*, at <https://www.osac.gov/pages/ContentReportDetails.aspx?cid=19071>.

¹⁴ Paul Kiernan and Will Connors, “Truck Carrying Broadcast Equipment for Olympics Hijacked in Rio,” *Wall Street Journal*, July 1, 2016.

adjacent to major tourist attractions.”¹⁵ However, U.S. Olympic Committee (USOC) officials reportedly have stated that “the athletes’ and competition venues would be ‘the safest place in the world’” and U.S. “‘athletes will be among the safest people in Rio, just because of all the security there’s going to be.’”¹⁶

The September 11, 2001, terrorist attacks in the United States and recent attacks in Belgium, France, and the United States have heightened concerns that the Olympics could be targeted by terrorists. As reported by the *Washington Post*, Brazil is revising its security plans for the Games in the wake of the incident in Nice, France, in July 2016.¹⁷ On the other hand, the *Wall Street Journal* reported that a contract for providing screeners who will staff security checkpoints was not awarded until July 1, 2016, and the company awarded the contract is “a small employment outsourcing firm.”¹⁸

Hosting the Olympic Games and Paralympic Games may have implications for Brazil that extend beyond the actual events. Although the Brazilian government viewed hosting the Olympics as an opportunity to showcase the country’s progress, its international stature has generally declined in recent years and Olympics-related problems that have emerged, or may emerge, could adversely affect the country’s standing. For example, as countries’ Olympic teams began moving into the Olympic Village in July, they discovered a variety of infrastructure problems. At least one country’s delegation chose to stay in a hotel while the plumbing, electricity, and gas problems were fixed.¹⁹ Additionally, the backdrop to the Olympics is a country beset by political and economic issues.

Although a host country may anticipate that being selected to stage the Games will enhance its standing in the world, serve as a catalyst for ameliorating (for example) environmental issues, or prompt economic development, hosting the Games may fall short of the Rio 2016 Organising Committee for the Olympic Games’ (Rio Organising Committee or Rio2016™) goals or exacerbate existing problems or issues. If Brazil’s efforts are successful, the country may regain some of the prestige it may have lost in recent years, and, turning to politics, a successful Games might improve the standing of the interim president. While the city of Rio de Janeiro may benefit from infrastructure improvements, it is unclear how hosting the Games might affect the country (including the city and state of Rio de Janeiro) financially.

Of particular concern to athletes who compete in open water events, such as sailing and rowing, is the quality of the water where those events will take place. Although the Rio 2016 Organising Committee for the Olympic Games (Rio Organising Committee or Rio2016™) had committed, for example, to ensuring to improve the quality of the water at the venue for canoeing, kayaking, and rowing events,²⁰ the efforts apparently have fallen short. As reported by

¹⁵ U.S. Department of State, “Brazil,” at <https://travel.state.gov/content/passports/en/country/brazil.html>.

¹⁶ Dave Sheinin, “USOC Organizers Downplay Concerns over Zika, Security Heading into Rio Games,” *Washington Post*, at https://www.washingtonpost.com/sports/olympics/usoc-organizers-downplay-concerns-over-zika-security-heading-into-rio-games/2016/06/30/b47d1ff8-3f11-11e6-a66f-aa6c1883b6b1_story.html.

¹⁷ Dom Phillips, “Brazil Beefs Up Olympic Security after Nice Terror Attacks,” *Washington Post*, July 16, 2016, at https://www.washingtonpost.com/world/the_americas/brazil-beefs-up-olympic-security-after-nice-terror-attack/2016/07/16/dd2cced8-4b75-11e6-8dac-0c6e4acc5b1_story.html

¹⁸ Will Connors, “Brazil Moves Late on Olympics Security—Small, Inexperienced Company Was Given Contract for Screening Only Two Weeks Ago,” *Wall Street Journal*, June 18, 2016.

¹⁹ Vinod Sreeharsha, “At Athletes’ Village, a Nonstop Effort to Stem Flow of Complaints,” *New York Times*, July 26, 2016, at <http://www.nytimes.com/2016/07/27/sports/at-athletes-village-a-nonstop-effort-to-stem-flow-of-complaints.html?ref=sports>.

²⁰ Rio 2016 Organising Committee for the Olympic Games, *Candidature File for Rio de Janeiro to Host the 2016* (continued...)

ESPN.com in early 2016, a USOC memorandum on water quality read, in part, that “The IOC and Rio Organizing Committee recognize that the water quality in and around Rio is for the most part not at an acceptable level and there [are] significant fluctuations in the bacterial and viral contaminants at the competition venues.”²¹ Precautions taken by the U.S. rowing team include wearing a training suit that has anti-microbial properties.²²

Doping, which is a perennial concern, has taken on added importance in the year leading up to the Rio Games because of revelations regarding Russia’s national governing body (NGB) for track and field. Publication of a World Anti-Doping Agency-commissioned report in November 2015 revealed that individuals and sports organizations in Russia had engaged in an orchestrated doping scheme involving track and field athletes. A second WADA report, released in July 2016, documents Russian doping practices during the 2014 Sochi Winter Olympics and a multi-year doping methodology that involved the Russian Ministry of Sport. While the relevant international organizations, such as the World Anti-Doping Agency (WADA), denounced the doping schemes and practices and used their respective authorities to sanction individuals and organizations involved, lingering questions remain regarding, in particular, other Russian Olympic athletes and teams.

The Zika Virus Outbreak²³

Background

In late 2015, health officials in Brazil saw a spike in the number of infants born with microcephaly, a birth defect that may accompany significant, permanent brain damage. The increase in microcephaly was later linked to prenatal infection with the Zika virus, which appears to have arrived in Brazil early in 2015. Between October 2015 and July 2016, more than 1,600 cases of Zika-related microcephaly and other congenital malformations of the central nervous system have been reported among newborns in Brazil.²⁴

Zika virus is transmitted through the bite of an infected mosquito, or through sexual transmission or blood transfusion from an infected person. No vaccine or specific treatment is available. Most Zika infections are mild. However, rare but serious neurologic disorders may occur in anyone who is infected, and the risk of fetal abnormalities among infected pregnant women may be as high as 13%.²⁵

(...continued)

Olympic and Paralympic Games, 2009, Vol. 1, p. 97.

²¹ Bonnie D. Ford, “USOC Started Plans for Dealing with Rio Water Issues in 2015, According to Memo,” ESPN.com, February 19, 2016, at http://espn.go.com/olympics/story/_/id/14794579/usoc-memo-2015-details-water-worries-2015-rio-olympic-games.

²² Associated Press, “U.S. Rowers Get Antimicrobial Training Suits for Rio Games”, June 26, 2016, at http://espn.go.com/olympics/rowing/story/_/id/16536587/us-rowers-given-antimicrobial-training-suits-rio-games;

²³ Prepared by Sarah A. Lister, Specialist in Public Health and Epidemiology, and Grant D. Clinkingbeard, Research Associate.

²⁴ Pan American Health Organization “Regional Zika Epidemiological Update (Americas),” July 7, 2016, at http://www.paho.org/hq/index.php?option=com_content&view=article&id=11599&Itemid=41691&lang=en. For more information about the Zika outbreak in Brazil, see CRS Report R44545, *Zika Virus in Latin America and the Caribbean: U.S. Policy Considerations*, coordinated by Clare Ribando Seelke.

²⁵ Michael A. Johansson, et al., “Zika and the Risk of Microcephaly,” *New England Journal of Medicine*, vol. 375, July 7, 2016. See also CDC, “Questions and Answers for Healthcare Providers Caring for Pregnant Women and Women of (continued...)”

A Proposal to Postpone or Cancel the Games

Some have voiced concerns that the travel of thousands of tourists and athletes to the Olympic and Paralympic Games and back to their homes could enhance the regional and global spread of the Zika virus. For some time, Brazilian officials have sought to assuage these concerns by noting that the Games will take place during the dry winter season in Brazil, when fewer mosquitoes are present, and that the venues and hotel areas will be regularly fumigated.²⁶ However, in May 2016, 150 health experts and bioethicists wrote an open letter to WHO Director-General Dr. Margaret Chan urging her to recommend postponing or relocating the Games.²⁷ The letter cites uncertainties surrounding the emergence of the Zika virus in the Americas, and the severity of the neurologic injuries Zika infection can cause. The letter also states that a long-standing partnership between WHO and the International Olympic Committee (IOC) presents a conflict of interest that compromises WHO's ability to render a neutral opinion on public health in this situation.

The World Health Organization (WHO) reaffirmed its support of the Games in June 2016, following the third meeting of a WHO Emergency Committee convened to study the Zika outbreak and the means to contain it. As it had before, the WHO committee determined that “... there is a very low risk of further international spread of Zika virus as a result of the Olympic and Paralympic Games ...,” and it did not recommend postponing, cancelling, or relocating the Games.²⁸ In July 2016, researchers at the U.S. Centers for Disease Control and Prevention (CDC) and their collaborators published a model of the contribution of the Olympics to the international spread of the Zika virus. The model found this contribution to be negligible except for four countries—Chad, Djibouti, Eritrea, and Yemen—that do not otherwise have substantial travel to any country with local Zika virus transmission.²⁹

Protections for U.S. Travelers and Athletes

The CDC publishes health recommendations for U.S. travelers to other countries. For the Zika outbreak, the CDC has not advised against all travel to Brazil (or other areas with active Zika transmission). It has advised against travel by pregnant women (discussed further below), and advises other travelers to use special precautions while in Brazil and upon return. These precautions include avoiding being bitten by mosquitoes, and practicing “safe sex” while on travel and for specified periods of time upon return.³⁰

(...continued)

Reproductive Age with Possible Zika Virus Exposure,” April 15, 2016, at <http://www.cdc.gov/zika/>.

²⁶ See for example Donna Bowater, “Brazil Battles to Save Rio Olympics as WHO Says it Will Look Again at Zika Risk,” *The Telegraph*, June 4, 2016.

²⁷ Letter from Amir Attaran et al. to Dr. Margaret Chan, Director-General, WHO, June 20, 2016, <https://rioolympicslater.org/>. See also Lena H. Sun, “150 Experts Say Olympics Must Be Moved or Postponed Because of Zika,” *Washington Post*, May 27, 2016.

²⁸ World Health Organization. “WHO Statement on the Third Meeting of the ... Emergency Committee on Zika Virus and Observed Increase in Neurological Disorders and Neonatal Malformations,” June 14, 2016, at <http://www.who.int/mediacentre/news/statements/2016/zika-third-ec/en/>.

²⁹ Ardath Grills et al., “Projected Zika Virus Importation and Subsequent Ongoing Transmission after Travel to the 2016 Olympic and Paralympic Games—Country-Specific Assessment, July 2016,” *Morbidity and Mortality Weekly Report*, vol. 65, July 13, 2016, <http://www.cdc.gov/mmwr>. Other studies support a similar conclusion. Some of them are discussed by Julie Steenhuysen, “New Research Finds Low Risk of Zika Virus at Olympics,” *Reuters*, June 7, 2016.

³⁰ U.S. Centers for Disease Control and Prevention, “Zika Virus in Brazil,” Level 2 Travel Alert, April 28, 2016, at <http://wwwnc.cdc.gov/travel/notices/alert/zika-brazil>.

The USOC refers members of the U.S. Olympic and Paralympic delegations to CDC guidelines on travel to Brazil. In addition, the USOC says that delegation members who plan to attend the games will be provided with air-conditioned rooms, repellent spray, protective clothing, and a six-month supply of condoms to help them adhere to CDC guidelines.³¹ The USOC formed a voluntary advisory group of three infectious disease physicians to advise the committee and individual members of the U.S. delegation on preventing Zika infection.³²

As of early July 2016, several athletes, mostly men, have announced their decisions to forgo the 2016 Games due to concerns about Zika infection. Their concerns have included the safety of a pregnant wife, possible risks for future childbearing, and possible risks to their own health.³³

Protections for Pregnant Women

As the Zika outbreak spreads across South and Central America and the Caribbean, public health officials have focused on protecting pregnant women from infection. Ongoing research shows persistence of the virus in semen of men who have recovered from infection, even when the infection was mild enough to go unnoticed. Based on this, the CDC has made specific recommendations involving travel to Zika-affected areas in order to protect women—and their current or future pregnancies—from sexual transmission of Zika infection.³⁴ Recommendations involving the Olympic and Paralympic Games are shown in the text box. In light of these complicated recommendations, Olympic and Paralympic athletes, delegation members, athletes' families, and spectators are advised to consider—in addition to their own health status and the risk of Zika infection—the risk of transmitting an infection to a woman who is currently pregnant or who plans to conceive in the future.

Recommendations to Prevent Sexual Transmission of the Zika Virus

- Women who are pregnant are advised not to travel to the Olympic or Paralympic Games.
- Anyone who travels to Brazil and whose partner is pregnant should abstain from sex or use barrier protection (i.e., male or female condoms or dental dams) for sex of any kind for the duration of the pregnancy.
- A man who has a confirmed Zika virus infection or clinical illness consistent with Zika virus disease should consider using condoms or abstaining from sex with a non-pregnant partner for at least 6 months after the onset of illness. For a woman with a confirmed or possible Zika virus infection and a non-pregnant partner, the comparable period for abstinence or use of barrier protection is at least 8 weeks from the onset of illness.
- Anyone who travels to Brazil but does not develop symptoms of Zika virus disease should consider using barrier protection or abstaining from sex with a non-pregnant partner for at least 8 weeks after departure from the area.
- For couples seeking to become pregnant,
 - women who have Zika virus disease should wait at least 8 weeks after symptom onset to attempt conception, and men with Zika virus disease should wait at least 6 months after symptom onset to attempt conception.

³¹ Letter from Scott A. Blackmun, Chief Executive Officer, U.S. Olympic Committee, to the Honorable Barbara Boxer, United States Senate, May 23, 2016, at http://www.teamusa.org/~/_link.aspx?_id=4D577042ABE74F99BC847395A860429A&_z=z.

³² U.S. Olympic Committee, "U.S. Olympic Committee Creates Infectious Disease Advisory Group," press release, March 4, 2016, at <http://www.teamusa.org/News>.

³³ See for example, "Athletes to Skip Olympic Games because of Zika Virus Concerns," *Newsday.com*, updated June 29, 2016.

³⁴ Recent travelers and pregnant women are also urged to avoid being bitten by mosquitoes to prevent transmission of the virus to or from mosquitoes.

- women and men who have traveled to Brazil but do not have clinical illness consistent with Zika virus disease should wait at least 8 weeks after exposure to attempt conception.

Sources: U.S. Centers for Disease Control and Prevention (CDC), “2016 Summer Olympics,” July 27, 2016, at <http://wwwnc.cdc.gov/travel/notices/alert/2016-summer-olympics-rio>; and CDC, “Zika Virus: Women and Their Partners Who Are Thinking About Pregnancy,” at <http://www.cdc.gov/zika/pregnancy/thinking-about-pregnancy.html>.

Brazilian Health Services for Olympians and Visitors³⁵

Brazil offers free health care for its citizens and visitors.³⁶ Health care services are expected to be provided through “a comprehensive network of Games hospitals and related health care facilities, including an upgraded World Anti-Doping Agency-accredited laboratory in Rio.”³⁷ In addition to the pre-existing health infrastructure, Brazil committed to establishing “a number of Games-specific services, including designated Games Family hospitals, a comprehensive Polyclinic within the Olympic and Paralympic Village, on-site medical response teams at all Games venues, and a network of medical stations supported by roving first aid teams.”³⁸ Brazil has 27 hospitals within 15 miles of the Olympic Village that hold nearly 5,000 beds, and, each of the four cities that will host soccer matches, in addition to Rio de Janeiro, has its own hospital.³⁹ Nine of the hospitals may be designated as Olympic and Paralympic Reference Hospitals.⁴⁰ Rio de Janeiro also maintains a network of emergency services, which is resourced by the Emergency Rescue Group (GSE; a component of the Rio Fire Corps), the Urgent Mobile Attention Service (SAMU), and 1,500 health care professionals.⁴¹

Long waiting times, health worker shortages (particularly specialists), and deficits of key health commodities are a growing concern in some public sector health facilities.⁴² A growing proportion of Brazilians are opting to purchase private health insurance to supplement the free public health care.⁴³ Visitors can purchase travel insurance or purchase a temporary form of private health insurance for health coverage in the local private sector.⁴⁴ Despite concerns about health worker shortages, Brazil has committed to ensure that

- an on-site medical response team will be in place at all Olympic and Paralympic venues to provide first response and medical transfer;

³⁵ Prepared by Tiaji Salaam-Blyther, Specialist in Global Health.

³⁶ Rio 2016 Organising Committee for the Olympic Games, *Candidature File for Rio de Janeiro to Host the 2016 Olympic and Paralympic Games*, Vol. 3, 2009, p. 9.

³⁷ *Ibid.*, n.p.

³⁸ *Ibid.*, p. 9.

³⁹ *Ibid.*, p. 12.

⁴⁰ *Ibid.*, p. 19.

⁴¹ *Ibid.*, p. 15.

⁴² Felicia Bryson, “Brazil’s SUS National Health Problems,” *The Rio Times*, April 5, 2011.

⁴³ Michele Gragnolati, Magnus Lindelow, and Bernard Couttolenc, *Twenty Years of Health System Reform in Brazil*, World Bank, Washington, DC, 2013, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/06/21/000442464_20130621122542/Rendered/PDF/786820PUB0EPI10Box0377351B00PUBLIC0.pdf.

⁴⁴ *Ibid.*, p. 11.

- at least two ambulance units will be stationed at each competition venue, as well as in many non-competition venues including the Olympic and Paralympic Village, training sites, and the Games Family hotels;
- well-equipped disaster response teams are trained to respond to a range of possible emergencies, including dangerous weather conditions, multiple casualty situations, and incidents involving biological, chemical, or radiological hazards; and
- each Games venue will have its own mass casualty response plan with a pre-deployed, fully equipped mass casualty response team remaining on standby.⁴⁵

The Brazilian Minister of Health has indicated that “Rio de Janeiro is prepared to host the Olympic and Paralympic Games. Everything that was promised to host the Games will be fulfilled and on time.”⁴⁶ The International Olympic Committee also indicated that “Rio 2016 is ready to welcome the world.”⁴⁷ Despite these assurances, in January 2016, some state hospitals reportedly ran out of money to pay for medicines, equipment, and salaries.⁴⁸ Another press report indicated that on July 7, 2016, two medical associations reported insufficient space at a state hospital and inadequate training for healthcare personnel responsible for visitors of the Games.⁴⁹

Public Safety and Security During the Games

Securing the venues, the athletes’ village, and tourist locations against an act of terrorism in a city hosting the Olympic Games is a significant undertaking. The host country, with the assistance of international security partners, plans for a long time to ensure that all participants or visitors to the Games can have a safe and enjoyable experience. One type of activity that has caused significant disruption to prior Games is an act of terrorism. Planning for such a terrorist incident during the Olympic Games, while occurring infrequently, requires a great deal of host nation and international support.

Safety is also a concern as criminal activity directed at the athletes and visitors could have negative implications for the Games and the Brazilian economy and tourism.

Public Safety Concerns⁵⁰

According to the State Department, “crime is the principal threat to visitors in Brazil.”⁵¹ When the country hosted the 2014 World Cup, thieves engaged in opportunistic street crime, targeting tourists near stadiums, on public transportation, and in other gathering locations. Commonly

⁴⁵ Rio 2016 Organising Committee for the Olympic Games, *Candidature File for Rio de Janeiro to Host the 2016 Olympic and Paralympic Games*, pp. 15-16.

⁴⁶ “Brazil Opens Control Center for Health Emergencies During Olympic Games,” *Fox News Latino*, July 12, 2016.

⁴⁷ Rio 2016 Organising Committee for the Olympic Games, “‘Rio 2016 Is Ready to Welcome the World,’ Says IOC After Final Visit Before Olympic Games,” *Rio2016*, July 11, 2016, at <https://www.rio2016.com/en/news/rio-2016-ready-ioc-olympic-games-nawal%20el-moutawakel>.

⁴⁸ Foreign Policy Association Administrator, “Is Rio Ready for the Olympics?” Foreign Policy Association, *Foreign Policy Blogs*, February 16, 2016, at <http://foreignpolicyblogs.com/2016/02/16/is-rio-ready-for-the-olympics/>.

⁴⁹ “Brazil Opens Control Center for Health Emergencies During Olympic Games,” *Fox News Latino*, July 12, 2016.

⁵⁰ Prepared by Peter J. Meyer, Analyst in Latin American Affairs.

⁵¹ U.S. Department of State, Bureau of Diplomatic Security, Overseas Security Advisory Council, *Brazil 2016 Crime & Safety Report: Rio de Janeiro*, February 15, 2016.

stolen items included wallets, purses, phones, and other valuables. While thefts were usually non-violent, more serious crimes were also reported, including sexual assault, armed robbery, and express kidnapping.⁵²

Rio de Janeiro has experienced significant improvements in security conditions over the past decade. The city's homicide rate, for example, fell from 32.4 per 100,000 residents in 2003 to 18.5 per 100,000 in 2015 (a rate similar to that of Miami).⁵³ Conditions appear to have deteriorated somewhat in 2016, however, with Rio de Janeiro state reporting a 13.6% increase in homicides and a 27.3% increase in street robbery during the first five months of the year.⁵⁴ The U.S. State Department asserts that while crime can happen at any place or time within Rio de Janeiro, "tourists are particularly vulnerable to street thefts and robberies in the evening and at night especially in areas adjacent to major tourist attractions."⁵⁵ Several Olympic and Paralympic athletes training or participating in test events in Rio de Janeiro reportedly have been robbed at gunpoint.⁵⁶

Some analysts have linked the recent increase in crime and violence to the Rio de Janeiro state government's decision to reduce the police budget by a third as a result of financial shortfalls.⁵⁷ The state government declared a state of "public calamity" on June 17, warning that the state's deteriorating financial situation could lead to a total collapse of public security and other services. Brazil's national government responded to the declaration by transferring \$885 million (R\$2.9 billion) to the state government, largely to fund security efforts.⁵⁸

Although public security is primarily the responsibility of Brazil's states, the national government will be in charge of ensuring security around the Olympic Games. The security presence is expected to comprise 85,000 personnel, including 41,000 military troops; this is roughly twice as many personnel as were deployed for the London Games in 2012. Some 67,000 security personnel will be based in Rio de Janeiro while 18,000 will be deployed to the other five cities hosting Olympic soccer games. In addition to providing security at Olympic venues, Brazilian security forces reportedly will patrol airports, major roadways, public transportation lines, and tourist zones.⁵⁹

⁵² U.S. Department of State, Bureau of Diplomatic Security, Overseas Security Advisory Council, *Brazil 2015 Crime and Safety Report: Brasilia*, March 10, 2015. Unlike conventional kidnappings, which "are elaborately planned, with rich victims and prolonged negotiations," express kidnappings generally occur quickly and involve small amounts of ransom money. "Quickie Kidnappings," *The Economist*, June 6, 2015, at <http://www.economist.com/news/americas/21653636-abductions-get-faster-poor-are-being-targeted-along-rich-quickie-kidnappings>.

⁵³ Governo de Rio de Janeiro, Secretaria de Segurança, Instituto de Segurança Pública, *Rio de Janeiro: A Segurança Pública em Números*, 2016; Max Ehrenfreund and Denise Lu, "More People were Murdered Last Year Than in 2014, and No One's Sure Why," *Washington Post*, January 27, 2016.

⁵⁴ Governo de Rio de Janeiro, Secretaria de Segurança, Instituto de Segurança Pública, *Resumo dos Indicadores de Maio de 2016*, June 30, 2016.

⁵⁵ U.S. Department of State, Bureau of Consular Affairs, "Brazil," May 25, 2016, at <https://travel.state.gov/content/passports/en/country/brazil.html>.

⁵⁶ "Call for More Rio Security after Paralympic Athletes Robbed," Associated Press, June 21, 2016.

⁵⁷ Dom Phillips, "Facing Crime Wave, Brazil will Deploy 85,000 Police and Soldiers to Guard Olympics," *Washington Post*, June 9, 2016.

⁵⁸ "Brazil: Rio Declares Public State of Calamity," *Latin American Weekly Report*, June 23, 2016.

⁵⁹ Marcio Menasce and Antônio Werneck, "Aviões que Invadirem Espaço Aéreo de Arenas Olímpicas podem ser Abatidos," *Globo*, July 7, 2016; Ministério da Defesa, "Defesa Atuará com 41 Mil Militares nos Jogos Olímpicos e Paralímpicos Rio 2016," press release, July 6, 2016.

Security Concerns⁶⁰

Terrorist Incidents in Past Olympics

An act of terrorism occurring at the Olympic Games has long been a concern to international security officials and the nation hosting the event. An act of terrorism can be perpetrated by an international group attempting to call attention to its cause and using the act to leverage a specific action, or a domestic group demonstrating its unhappiness with a nation's policies.⁶¹ Concerns relating to acts of terrorism significantly increased after the 1972 Olympics in Munich, Germany, when members of the Palestinian Black September Organization attacked the Olympic village and in the process of a hostage standoff and attempted getaway, killed 11 members of the Israeli Olympic team. The group desired to bring attention to Palestinian and Israeli issues and also demanded the release of more than 200 Palestinian prisoners from Israeli jails.⁶² Another confirmed terrorist attack occurred during the 1996 Olympics in Atlanta, Georgia, whereby an individual detonated a backpack full of material killing two and wounding more than 100. This individual undertook this act of domestic terrorism to protest the nation's abortion laws.⁶³ Other acts of violence or threats of violence have occurred prior to, leading up to, and during other Olympic Games. Some of these acts or threats have been categorized as possibly having terrorism-related motivations. Due to previous terrorist attacks at Olympic Games and post-9/11 concerns associated with possible vulnerabilities associated with large gatherings of individuals, security officials are closely monitoring potential threats to the 2016 Games.

The Terrorist Threat to the Rio Games⁶⁴

In April 2016, Brazil's Director of Counterterrorism, Brazilian Intelligence Agency, Luiz Alberto Sallaberry, was reported as noting that the threat of terrorism had increased in recent months due to attacks in other countries and a rise in what he described as the number of Brazilian nationals suspected of sympathizing with Islamic State militants.⁶⁵ The statement from Director Sallaberry was apparently in response to information relating to a Tweet from November 2015 by a suspected ISIS executioner, French nationalist Maxime Hauchard, that stated, "Brazil, you are our next target."⁶⁶ This warning comes approximately a year after a Brazilian newspaper reported that, "Brazilian intelligence agencies are gearing up to monitor young people, especially men,

⁶⁰ Prepared by John W. Rollins, Specialist in Terrorism and National Security.

⁶¹ The National Consortium for the Study of Terrorism and Responses to Terrorism, *Background Report: Terrorism and the Olympics*, College Park, MD, July 24, 2012, pp. 1-5, at <https://www.start.umd.edu/sites/default/files/files/publications/br/TerrorismAndOlympics.pdf>.

⁶² *Ibid.*, p. 2.

⁶³ National Public Radio, "Full Text of Eric Rudolph's Confession," press release, April 14, 2005, at <http://www.npr.org/templates/story/story.php?storyId=4600480>.

⁶⁴ Information contained in this section of the paper is derived from open-source unclassified research. Classified information possessed by U.S. Intelligence Community or international security agencies may offer a different threat assessment.

⁶⁵ Alex Rodrigues, "Brazilian Intelligence Agency Confirms Terrorist Message Against the Country," *Agência Brasil*, April 14, 2016, at <http://agenciabrasil.ebc.com.br/en/geral/noticia/2016-04/brazilian-intelligence-agency-confirms-terrorist-message-against-country>.

⁶⁶ "Brazil, You Are Our Next Target: How Serious Is ISIS's Latest Threat?," *Reuters*, April 16, 2016, at <http://english.alarabiya.net/en/perspective/features/2016/04/16/Brazil-sees-rising-threat-from-ISIS-says-intelligence-agency.html>.

who may be enticed by online ISIS propaganda to stage ‘lone wolf’ attacks.”⁶⁷ More recently, on July 21, 2016, Brazilian police arrested 10 Brazilian nationals suspected of planning a terrorist attack on the Games.⁶⁸ Given the history of threats directed at the Olympic Games and the specific threats directed at Rio in the past year, many security observers anticipate activities to safeguard these games will be significant.

Brazil’s Security Preparations for the Games

Securing Olympic venues, athletes, and visitors to the Games and the surrounding area takes a great deal of effort and planning. Brazil planned to devote “approximately 85,000 professionals ... to guarantee security in the biggest sporting event ever held in South America.”⁶⁹ In August 2015, the Brazilian government noted that, “[C]urrent investments totaling R\$750 million (\$220.98 million), to which about R\$220.98 million (\$88.39 million) in equipment and infrastructure improvements for troops should still be added by 2016.”⁷⁰ These resources were expected to be devoted to investing in security-related items, including mobile police stations, mobile command and control centers, Elevated Observation Platforms, aerial imagers for helicopter monitoring, and an Integrated Command Center. In the event a security incident does arise that is the cause of significant concerns and the host government is perceived as incapable of safeguarding visitors to the Games, the United States may be of assistance to its citizens located in Rio de Janeiro.

U.S. Citizens Requiring Assistance⁷¹

Whether the result of criminal- or terrorism-related concerns, U.S. citizens who find themselves in harm’s way have a number of options to seek support from the federal government. The Department of State (DOS) is required by law to provide a range of threat-related services to Americans abroad. In all but the most extreme situations, the department will serve primarily in an information-distribution role. However, if the departure of U.S. citizens is advised, additional assistance may be provided.

The Department of State is required by law to serve as a clearinghouse of information on any major disaster or incident abroad which affects the health and safety of U.S. citizens abroad.⁷² The department carries out this function through the Consular Information Program, which provides a range of products, including Country Specific Information, Travel Alerts, Travel Warnings, Worldwide Cautions, Messages for U.S. Citizens, Security Messages for U.S. Citizens, Emergency Messages for U.S. Citizens, and Fact Sheets. These messages are posted at <https://travel.state.gov> website.

⁶⁷ Frances Martel, “Report: ISIS Recruiting ‘Lone Wolf’ Jihadists in Brazil to Attack 2016 Olympics,” *Breitbart*, March 23, 2015, at <http://www.breitbart.com/national-security/2015/03/23/report-isis-recruiting-lone-wolf-jihadists-in-brazil-to-attack-2016-olympics/>.

⁶⁸ “Brazil Olympics: Ten Arrested for Plotting ‘Terror’,” *BBC News*, July 21, 2016, at <http://www.bbc.com/news/world-latin-america-36858806>.

⁶⁹ Rio 2016 Organising Committee for the Olympic Games, “Federal Government One Year to the Rio 2016 Olympic Games,” press release, August 4, 2015, at <http://www.brasil2016.gov.br/en/news/one-year-to-the-rio-2016-olympic-games/press-kit-one-year-to-the-rio-2016-olympic-games>.

⁷⁰ *Ibid.*

⁷¹ The material in this section was taken from CRS In Focus IF10346, *Helping U.S. Citizens Abroad During a Crisis: Role of the Department of State*, by Alex Tiersky.

⁷² 22 U.S.C. §2715.

The Secretary of State is also required to provide for the safe and efficient evacuation of private U.S. citizens when their lives may be endangered, per 22 U.S.C. §4802. In practice, even when the department advises U.S. citizens to leave a country, DOS will advise citizens to evacuate using existing commercial transportation options whenever possible. In more rare circumstances, when the local transportation infrastructure is compromised, DOS may arrange chartered or non-commercial transportation for U.S. citizens to evacuate to a nearby safe location determined by the department. Given the challenges associated with in-country transportation during crises, the department typically requires citizens to make their own way to the departure point. On arrival at a safe location, evacuees are then typically required to make their own onward travel arrangements. Involvement of the U.S. military in any evacuation of U.S. citizens is a last resort, as most evacuations are able to rely on commercial means and local infrastructure. When those elements are not available, DOS and Defense Department coordination is addressed through a standing Memorandum of Agreement that addresses the roles and responsibilities of each agency.

Environmental Concerns⁷³

Background: Environmental Commitments for the Olympics Games

In 1999, the IOC adopted a two-phase procedure for awarding an Olympic Games to a city. The first phase is the “Candidature Acceptance Procedure,” during which applicant cities are required to address several potential concerns of hosting the games, including “environmental conditions and impact.” They must provide the following:

- an assessment of current environmental conditions in the city;
- details of ongoing environmental projects and their organization;
- an assessment of the environmental impact of staging the Games in that city or region; and
- information regarding any environmental impact studies carried out on proposed venues and if legislation requires such studies.⁷⁴

Responses are assessed by the IOC Candidature Acceptance Working Group in its report to the IOC Executive Board. Thus, environmental conditions, actions, and impact are a consideration in the decision as to which cities become “candidate cities.”

During the second phase of consideration, a candidate city must prepare a “Candidature File” that provides details on environmental and other issues. More details are requested, including air quality, protected areas, public authorities’ roles and responsibilities, environmental impact assessments, construction work, work with non-governmental organizations (NGOs), integration of environmental approaches into contracts with suppliers and sponsors, and estimates of Games-time rainfall, wind, temperatures, and humidity levels. This information is considered by the IOC to be a central element in developing a “Green Games,” as all commitments regarding actions,

⁷³ Prepared by Claudia Copeland, Specialist in Resources and Environmental Policy.

⁷⁴ International Olympic Committee, *Sustainability and Legacy Commission*, undated, at <http://www.olympic.org/sustainability-and-legacy-commission?tab=games>.

programs, and policies are binding and should be carried out and implemented by the Organising Committee.⁷⁵

After an Olympic Games is awarded to a city, the host city Organising Committee integrates environmental issues into its planning, logistics, and operations in accordance with commitments made in the Candidature File. It also must work with government authorities and other stakeholders to implement the city-wide and nationwide policy and program developments and actions in the bid in order for a city to fulfill its Host City contract obligations. In addition to external scrutiny by NGOs and the media, the IOC and the Organising Committee monitor progress and implementation of the proposed environmental and sustainability actions and policies to ensure fulfillment of commitments.

In preparing its Candidature File, the Rio de Janeiro bid committee developed an agenda for the 2016 Olympic and Paralympic Games structured around nine environmental issues.

1. Water treatment and conservation
2. Environmental awareness
3. Use and management of renewable energy
4. Games neutral in carbon, air quality, and transport
5. Protection of soils and ecosystems
6. Sustainable design and construction
7. Reforestation, biodiversity, and culture
8. Shopping and ecological certification
9. Solid waste management.

Thus, by 2009, when the Rio Olympics Organising Committee was awarded the 2016 Summer Games, it had made a number of pledges about ensuring that the Games would be environmentally safe and sustainable. The Organising Committee also pledged to prepare a subsequent Sustainability Management Plan expanding on the nine thematic issues identified in the Candidature File and identifying responsible entities.⁷⁶ The Sustainability Management Plan identified three overarching strategic objectives, one of which—“Planet”—was intended to reduce the environmental impact of projects related to the 2016 Games, leaving a smaller environmental footprint from the preparations and operations of the event.

This portion of the plan identified specific objectives for transportation (including expanding the subway system to provide public transport for spectators and workers, using cleaner fuels for buses, and implementing actions to reduce greenhouse gas emissions in public transportation systems). It also addressed construction (pledging to minimize environmental impacts in the design and construction of facilities, and making large-scale urban redevelopment and improvements around stadium and other sport venue sites).

The plan also identified objectives for waste management based on a hierarchy of approaches: avoidance, reducing, reuse, recycling, composting, energy recovery techniques, waste treatment, and conventional incineration. In 2007, among the 92 municipalities in the state of Rio de Janeiro, 76 discarded their waste in uncontrolled dumpsites. According to a state report, a total of 13,738

⁷⁵ Ibid.

⁷⁶ Rio2016, *Sustainability Management Plan: Rio 2016™ Olympic and Paralympic Games*, March 2013, p. 10, at https://www.rio2016.com/sites/default/files/parceiros/sustainability_management_plan_aug2013.pdf. Hereinafter, Sustainability Report. Environmental sustainability is a broad concept that essentially says that the needs of man can be met without jeopardizing the ability of future generations to meet their needs.

tons of garbage was produced daily by more than 15 million inhabitants of those municipalities. Less than 1% of the waste was recycled, while 41% was disposed in dumpsites, and 45% went to controlled sanitary landfills.⁷⁷ The waste management objectives in the 2013 Sustainability Plan and existing Brazilian policy called “Dumpsite Zero” mandated shutting down by 2014 all large untreated dumpsites in Brazil, which were then receiving more than one-third of the country’s waste, and replacing them with sanitary landfills.⁷⁸

Finally, the Sustainability Management Plan addressed a fourth set of objectives related to environmental conservation and cleanup. These objectives included projects to minimize impacts on existing ecosystems at Games venues and to accelerate forest reforestation activities.

Available information on the extent to which these objectives have been met is summarized below.

Water Quality Issues

One focus of the environmental conservation and cleanup objectives was improving the quality of waters that would be sites for sailing, rowing, triathlon, and marathon swimming during the 2016 Games. The plan for the Games calls for sailing, rowing, and other outdoor water events to take place at three locations located in the southeast portion of Rio de Janeiro—Marina da Gloria and Guanabara Bay, Rodrigo de Freitas lagoon, and Fort Copacabana beach, collectively referred to as the Copacabana Zone (see **Figure 3**). Even before the Games were awarded to Rio de Janeiro, concern had been widely expressed about these locations, which are highly polluted with untreated sewage and household and industrial wastes. This concern led to fear that high levels of water pollution could harm the health of tourists and athletes, in addition to impacting the competitions themselves.

In 2007, the city of Rio de Janeiro treated only 21% of its wastewater to secondary treatment levels, 44% received primary treatment, and nearly 35% was discharged into open waters with no treatment.⁷⁹ Untreated sewage is typically discharged directly into Guanabara Bay and other waters where sailing, windsurfing, rowing, and similar events will occur. Exposure to pollutants in untreated sewage can lead to acute illness such as diarrhea, gastroenteritis (“stomach flu”), fever, Hepatitis A, and typhoid fever. Facilities that could provide better treatment exist in some parts of the city, but are effectively unavailable due to lack of collector sewers to transport waste to treatment plants. Monitoring of waters in the Copacabana Zone that was done by Rio2016™ during the 2007-2012 period identified levels of pollutants—enterococci and fecal coliform bacteria, as well as nutrients—that exceeded Brazilian public health standards.

⁷⁷ The OGI-SAGE/COPPE/URFJ Research Team for The Organising Committee for the Rio 2016 Olympic and Paralympic Games, *Olympic Games Impact (OGI) Study—RIO 2016*, Initial report to measure the impacts and the legacy of the Rio 2016 Games, January 2014, p. 82, at https://www.rio2016.com/transparencia/sites/default/files/ogi_rio_2016_r1_eng1.pdf. Hereinafter, OGI Report.

⁷⁸ The Plan acknowledged that a major challenge in shutting down dumpsites was the fact that they represented the only source of income for an estimated 1,700 waste pickers in Rio de Janeiro who provided subsistence for their families by scavenging materials on the sites. Measures to help these individuals, after closure of open dumps, in at least one case involved governmental payments into a Waste Pickers Fund, which would disburse monies to waste pickers over a period of future years. Sustainability Report, pp. 51-52.

⁷⁹ Michael Kepp, “Olympic Athletes Go for Gold Amid Rio Garbage,” *Bloomberg BNA Daily Environment Report*, July 27, 2016, p. B-1. Primary treatment is designed to remove suspended and floating solids from raw sewage. Secondary treatment, which is roughly equated to removing 85% of untreated wastes, is the minimal wastewater treatment requirement in the United States under the Clean Water Act.

Figure 3. Rio2016™ Water Venue Locations



Source: Prepared by CRS.

Concern was raised about pollution at all of the water venue sites but especially about Guanabara Bay, where sailing events will take place, as described in a 2014 report prepared for the Rio Organising Committee.

Despite the cyclic renewal of its waters to the sea, which makes its waters saline, the bay is the receptor of a significant watershed, which receives a wide range of liquid and solid discharges. Among the potential pollution sources included are: sewage, various types of industries, marine terminals for oil products, two commercial ports, several shipyards, and two oil refineries, among other economic activities. Population growth and industrial development brought, in addition to pollution, environmental physical issues, such as the destruction of peripheral ecosystems of the Bay, and the embankment of its water surface. It also brought uncontrolled land use and its adverse effects in terms of siltation, bottom sedimentation, flooding, and landslides. Simultaneously, public health problems have characterized the basin region of Guanabara Bay, reflecting the inadequate management of wastewater and solid waste in the region during the expansion of the Metropolitan Region. Throughout this time, the implementation of infrastructure services, such as sanitation and drainage did not follow population growth.⁸⁰

⁸⁰ OGI Report, p. 44.

The report concluded, “If this situation is not reversed in time for the Olympics, it will represent a potential health hazard to the athletes and tourists.”⁸¹

The 2013 Sustainability Management Plan called for accelerating planned improvements to sanitary facilities in the Rio metropolitan area, including a pledge that by the start of the 2016 Games, through projects to be undertaken by the municipal and state governments, collector sewer infrastructure would be constructed throughout the city and 80% of sewage would be treated to at least secondary treatment levels.

Implementing the Environmental Commitments

Although the 2013 Sustainability Management Plan stated that updates would be provided during the seven-year life of the Rio Olympics project (from winning the bid in 2009 to dissolution after the Games in late 2016), only one update has been issued. Called “Embracing Change,” it was released in September 2014.⁸² It describes activities and progress made in the 2012–2013 period, especially refinement of sustainability strategies contained in the 2013 Plan on topics such as carbon management—Rio2016™ had a target of reducing Rio de Janeiro’s total carbon emissions by 18.2% below 2011 levels by 2016; minimizing ecosystem impacts—through design and avoidance; and waste management. On the latter issue, this report noted that all open dumpsites in Rio de Janeiro were closed in 2012, and that the process for their environmental restoration had begun. By late 2013, 3.7% of potentially recyclable waste was being diverted to recycling centers, while the city’s target was to recycle 25% of wastes by 2016. Regarding water quality, the 2014 report said that the percentage of sewage receiving at least some level of treatment had increased to 50% in 2013.

Progress toward water quality cleanup plans—or lack of progress—has continued to receive widespread public attention. Watchdog groups say, for example, that official statistics on the percentage of city sewage that is treated assume that all sewage treatment facilities are functioning, an assumption that they believe is not correct.⁸³ Since 2014, official estimates of the percentage of the city’s sewage that will be receiving treatment by the start of the 2016 Games have dropped—from 80% receiving secondary treatment in the 2009 bid for the Games, to 50% receiving some treatment early in 2014, to 30% in early 2016. Some officials now estimate that it could take five to six more years to attain the 80% target, although Rio de Janeiro’s Governor Luiz Fernando Pezao said in October 2015 that Guanabara Bay will not be cleaned up until 2035.⁸⁴

Health Implications for Athletes

Approximately 1,700 athletes are expected to participate in events at the Copacabana Zone sites. Throughout 2015, many U.S. and other countries’ athletes visited Rio de Janeiro to train and familiarize themselves with conditions and facilities. Athletes reported seeing massive amounts of

⁸¹ Ibid., p. 46.

⁸² Rio 2016, *Embracing Change, Rio 2016 Sustainability Report*, September 2014, at https://www.rio2016.com/transparencia/sites/default/files/rio_2016_sustainability_report_sept2014.pdf.

⁸³ RioOnWatch, “Three Months to Go: Checking in on Rio’s Olympic Legacy Promises,” May 5, 2016, at <http://www.rioonwatch.org/?p=28371>.

⁸⁴ David Biller, “Brazil Probe Targets Olympic Sailing Bay Sewage Plants,” *Bloomberg BNA, Daily Environment Report*, vol. 68 (April 8, 2016), p. A-14; Jenny Barchfield, “Rio Rules Out Viral Testing of Sewage-filled Olympic Waters, Citing WHO Recommendations,” *U.S. News and World Report*, October 15, 2015, at <http://www.usnews.com/news/sports/articles/2015/10/16/rio-2016-no-viral-testing-of-sewage-filled-olympic-waters>.

large debris in Guanabara Bay and other waters—including mattresses, cars, washing machines, trees, tables, televisions, couches, and chairs, as well as dead animals.⁸⁵ The Rio de Janeiro state government pledged to install eco-barriers, to catch refuse flowing down rivers, and to employ “eco-boats” that sweep the bay picking up garbage to avoid disrupting competitions during the Games.

In addition to waste that athletes could see in the water came reports of pollutant contamination. Some athletes reportedly got sick at training and test events in 2015, but none of the cases was definitively connected to the water, as opposed to food or another source. In July 2015, the Associated Press (AP) released findings of a five-month investigation and analysis of water quality at sites where Olympics and Paralympics competitions will be held. The AP investigation tested for rotavirus, which is the most common cause of gastroenteritis, as well as three different strains of adenoviruses, each of which acts as a signpost for human waste in waterbodies. AP said that its tests, which were the first independent comprehensive testing at the Olympic sites, revealed “dangerously high levels of viruses and bacteria” above Brazilian or World Health Organization standards.⁸⁶

The AP’s focus on viruses complicated controversies and publicity that followed release of the report, because neither Brazil nor the WHO (nor the United States) has adopted water quality standards that establish safe levels for viruses in recreational or other waters. Brazilian, WHO, and U.S. standards and water quality criteria are based on bacterial indicators of fecal contamination (enterococci and *E. coli*). Although enteric viruses are currently tested in some places as water quality indicators, and some water experts believe that governments should adopt viral as well as bacterial testing to determine whether recreational waters are safe, most scientists believe that testing for viruses has yet to be successfully implemented in routine monitoring of water quality.⁸⁷

In response to the AP report, Rio2016™ and IOC officials said that the health and welfare of athletes is always a top priority and that bacterial testing has shown that water quality meets relevant international standards.⁸⁸ As noted, there are no international standards for the viral indicators that were included in the AP’s analyses. The IOC said that it had no plans to conduct its own water quality tests. The WHO, which acts in an advisory role to the IOC, took several different positions on whether or not viral testing should be carried out, ultimately stating in October 2015 that it did not feel that Olympic officials needed to conduct routine viral testing. The WHO statement added that it was not “unconcerned with viral pathogens in water” and that water quality and monitoring would continue to be discussed in relation to the 2016 Games.⁸⁹ Swimming’s governing body, Fédération Internationale de Natation (FINA), called for virus

⁸⁵ John Clarke, “Sailing Through the Trash and Sewage of Guanabara Bay,” *The New Yorker*, July 22, 2015, at <http://www.newyorker.com/news/sporting-scene/sailing-through-the-trash-and-sewage-of-guanabara-bay>.

⁸⁶ Brad Brooks and Jenny Barchfield, “AP Investigation: Olympic Teams to Swim, Boat in Rio’s Filth,” June 30, 2015, at <http://bigstory.ap.org/article/d92f6af5121f49d982601a657d745e95/ap-investigation-rios-olympic-water-rife-sewage-virus>.

⁸⁷ Erin Allmann Updyke, Zi Wang, and Si Sun, et al., “Human Enteric Viruses—Potential Indicators for Enhanced Monitoring of Recreational Water Quality,” *Virologica Sinica*, vol. 30, no. 5 (October 2015), pp. 344-353.

⁸⁸ David McDaid, “Rio 2016: World Sailing Hopeful of Water Quality Improvement,” December 16, 2015, at <http://www.bbc.com/sport/sailing/35112607>.

⁸⁹ Brad Brooks, “An Extreme Environment’: Tests Find Rio 2016 Olympic Waterways Highly Contaminated by Sewage, Even Far Offshore,” December 2, 2015, at <http://news.nationalpost.com/sports/rio-2016/an-extreme-environment-tests-find-rio-2016-olympic-waterways-highly-contaminated-by-sewage-even-far-offshore>.

testing in September 2015, and sailing's world governing body, the International Sailing Federation (ISAF), also said that it could support viral testing.⁹⁰

Athletes who might be exposed to contaminated water during the Games have offered mixed responses. Some said that they are concerned about even brief exposure to waters of Guanabara Bay; some sailors said that they will adopt protocols such as getting multiple vaccinations and washing themselves with bleach after competing. Others have said that they believe the issue has been overblown and that athletes typically face potential health risks in many places where they compete.⁹¹ USOC officials and organizations that represent athletes have said that individual athletes can choose whether or not to participate in the Games if they are concerned about these issues.

Finally, press reports in April 2016 said that Brazilian federal police are investigating Rio de Janeiro's state utility, Companhia Estadual de Águas e Esgotos (CEDAE), for allegations of fraud at its sewage treatment plants around Guanabara Bay. The police investigations were said to be part of a year-long probe that is targeting the water and sewage utility for pollution from treatment plants and possibly charging for services that it is not adequately providing, which, if proven, would constitute fraud.⁹²

Environmental Legacy of Hosting the Olympics

The benefits of hosting an Olympics Games often include acceleration of a wide range of existing plans, projects, investments, and activities. Rio de Janeiro's expectations in this regard are evident in the 2013 Sustainability Management Plan and other documents that discuss using the opportunity of the Games to benefit the city by improving environmental conditions and practices and incorporating sustainability policies and ethic into the city's future. Most analysts see the biggest gains from hosting an Olympics to be urban upgrades that otherwise would occur over a longer term, if at all.

Some believe that it is an obligation of an Olympics hosting city to improve its environmental conditions.⁹³ It is also believed that countries' hosting bids are greatly bolstered when they include major "green" or sustainability pledges. However, once the event is awarded, there are few, if any, consequences for countries if they do not follow through—despite the IOC's statements that commitments are binding.⁹⁴

Some observers expect that the environmental legacy of Rio2016™ may be viewed as having positive and negative implications for Brazil, such as public transportation and at least partially improved sewage treatment on the positive side, but other outcomes that are less clear. When the 2016 Summer Games were awarded in 2009, some feared that development pressures associated with the construction would harm nearby natural environments such as the biologically rich

⁹⁰ Jenny Barchfield, "Rio Rules Out Viral Testing of Sewage-filled Olympic Waters, Citing WHO Recommendations," *U.S. News and World Report*, October 15, 2015, at <http://www.usnews.com/news/sports/articles/2015/10/16/rio-2016-no-viral-testing-of-sewage-filled-olympic-waters>.

⁹¹ Liz Clarke, "U.S. Athletes Focused on Medals, Not Polluted Water, Ahead of Rio Olympics," *Washington Post*, March 10, 2016, pp. D1, D9.

⁹² David Biller, "Brazil Probe Targets Olympic Sailing Bay Sewage Plants," *Bloomberg BNA, Daily Environment Report*, vol. 68 (April 8, 2016), p. A-14.

⁹³ Simon Worrall, "Will the Olympics Make Things Better or Worse for Rio?" *National Geographic*, August 19, 2015.

⁹⁴ Jason Plautz, "Brazil Made Big Environmental Promises for Its Rio Olympics. Here's Why It Won't Keep Them," *The Atlantic*, July 2, 2014, at <http://www.theatlantic.com/politics/archive/2014/07/brazil-made-big-environmental-promises-for-its-rio-olympics-heres-why-it-wont-keep-them/452784/>.

Atlantic Forest and Coastal regions⁹⁵ and increase the city's population, especially by expanding *favelas*, urban slums where nearly one-quarter of its inhabitants live.⁹⁶ Reportedly, well-financed efforts to clean up Rio de Janeiro's waters have proved disappointing for decades, undercut by mismanagement and allegations of corruption.⁹⁷

All Olympic Games have glitches and receive skeptical press ahead of time, and the 2016 Games are no exception. In the weeks immediately ahead of the start of the Games, activist organizations that have been tracking developments say that some promised objectives are succeeding—for example, urban renewal and public transport—but that environmental and sanitation goals will be missed. They report that the promise to plant 24 million trees has been abandoned, and projects needed to mitigate untreated sewage discharges—one of the highest pre-Games priorities—are incomplete; overall, none of the major environmental projects linked to the Olympics will be completed before the Games. Once the deadline of the start of the 2016 Games has passed, international pressure to finish those projects is likely to disappear.⁹⁸ For now, the environmental legacy of the 2016 Games for Rio de Janeiro remains to be determined.

Implications of the Olympics for Brazil⁹⁹

In 2009, when the International Olympic Committee (IOC) announced that Brazil would host the 2016 Summer Games, then-President of Brazil Luiz Inácio Lula da Silva hailed the decision as recognition of Brazil's arrival as a "first-class country," stating, "Today we received the respect that people are already starting to show to Brazil."¹⁰⁰ As the fifth-largest and fifth most populous country in the world, Brazil has long sought recognition as a global power, and at the time it was awarded the Olympics, it appeared to be on the verge of finally realizing its ambitions. During the previous decade, a boom in global commodity prices fueled a period of rapid economic growth that—combined with the Lula Administration's social policies—significantly reduced poverty and inequality and lifted 36 million Brazilians into the middle class.¹⁰¹ Brazil's international stature grew along with its economy as the Brazilian government used increased revenues to expand its diplomatic presence and leveraged its economic clout to assert Brazilian influence on global matters ranging from trade to climate change. Like President Lula, many international observers viewed Brazil's successful bids for the 2016 Olympics and the 2014 World Cup as a confirmation of the country's rise.¹⁰²

⁹⁵ See <http://www.nature.org/ourinitiatives/regions/southamerica/brazil/placesweprotect/atlantic-forest.xml>.

⁹⁶ David Cleary, "What Do the Olympics Mean for Rio's Environment?" November 3, 2009, at <http://blog.nature.org/conservancy/2009/11/03/what-do-the-olympics-mean-for-rios-environment/>.

⁹⁷ Simon Romero and Christopher Clarey, "Note to Olympic Sailors: Don't Fall in Rio's Waters," *New York Times*, May 19, 2014, p. A1, New York edition.

⁹⁸ RioOnWatch, "Three Months to Go: Checking in on Rio's Olympic Legacy Promises," May 5, 2016, at <http://www.rioonwatch.org/?p=28371>.

⁹⁹ For more information on Brazil, see CRS Report RL33456, *Brazil: Background and U.S. Relations*, by Peter J. Meyer.

¹⁰⁰ Jonathan Wheatley, Roger Blitz, and Andrew Downie, "Rio Goes Wild as Lula's Lobbying Pays Off," *Financial Times*, October 2, 2009.

¹⁰¹ Marcelo Cortes Neri, *Os Emergentes dos Emergentes: Reflexões Globais e Ações para a Nova Classe Média Brasileira*, Fundação Getulio Vargas, Rio de Janeiro, June 27, 2011, p.11.

¹⁰² Stuart Grudgings, "Olympics Affirms Brazil's Rise, Lula Legacy," Reuters, October 2, 2009; Eduardo J. Gomez, "Foreign Policy: Why Brazil Won the 2016 Olympics," *National Public Radio*, October 5, 2009.

Brazil's international image has been battered in recent years, however, as the country has struggled to address deepening economic and political crises.¹⁰³ Economic growth began to slow as commodity prices declined. President Dilma Rousseff's economic policies exacerbated the situation, contributing to rising inflation and fiscal deficits and declining consumer and investor confidence. Brazil's economy contracted by 3.8% in 2015 and is projected to contract by 3.3% this year.¹⁰⁴ Some of the Brazilians who joined the middle class during the boom years have fallen back into poverty as unemployment has risen to 11.2%.¹⁰⁵

At the same time, a sprawling corruption investigation involving the diversion of public sector funds to political campaigns and politicians has implicated prominent business leaders and much of the political class. The Brazilian Congress has sought to channel the resulting citizen discontent into an effort to impeach President Rousseff, ostensibly for violations of the country's fiscal responsibility law; Rousseff is currently suspended from office in order to stand trial. While some Brazilians and international observers view Rousseff's impeachment as a necessary first step to address the economic and political crises, others view it as an illegitimate attempt to remove a left-leaning president and install a more conservative administration that will protect Brazilian legislators from the ongoing corruption probe. These economic and political setbacks have damaged the country's reputation as a successful and socially inclusive democracy and weakened its international influence.

The 2016 Olympics will place a spotlight on Brazil, drawing renewed international attention to the country's potential as well as its challenges. The new Brazilian administration led by Interim President Michel Temer views the Summer Games as an opportunity to demonstrate the country's credibility on the international stage.¹⁰⁶ If Brazil is able to host a successful Olympics despite the country's recent setbacks, it may be able to regain some of the prestige it may have lost in recent years. Alternatively, failures to complete construction on facilities and infrastructure, properly plan for logistics, or take appropriate precautions to protect the security and health of the athletes and fans attending the Games would likely further erode the country's international image.

The Olympics also could have political implications for Interim President Temer and the politicians governing the city of Rio de Janeiro and Rio de Janeiro state. Temer is expected to carry out official host duties during the Games as the acting head of state, and while domestic support for his administration likely will depend on its ability to resolve the country's economic and political crises, the Olympics could improve domestic and international perceptions of Temer's legitimacy and strengthen his hold on the presidency. On the other hand, any problems that emerge would likely be blamed on Temer and his political party, which controls the city and state governments of Rio de Janeiro.

Investments related to the 2016 Olympics are expected to total at least \$11.9 billion (R\$39.1 billion), using current exchange rates.¹⁰⁷ This includes nearly \$2.2 billion (R\$7.1 billion) for Olympic venues, \$2.3 billion (R\$7.4 billion) for the Rio 2016 Organising Committee for the Olympic Games, and \$7.5 billion (R\$24.6 billion) for infrastructure improvements,

¹⁰³ For more information, see CRS Insight IN10471, *Brazil in Crisis*, by Peter J. Meyer.

¹⁰⁴ International Monetary Fund, *World Economic Outlook Update*, June 19, 2016.

¹⁰⁵ Instituto Brasileiro de Geografia e Estatística, "PNAD Contínua: Taxa de Desocupação Fica Em 11,2% no Trimestre em Encerrado em Maio de 2016," press release, June 29, 2016.

¹⁰⁶ Javier Tovar, "Olympics will Restore Brazil 'Credibility': New Sports Minister," Agence France Presse, May 19, 2016.

¹⁰⁷ The monetary figures in this paragraph were generated using an exchange rate of 1 U.S. dollar to 3.2783 Brazilian reals.

environmental cleanup efforts, and other so-called legacy projects. Other costs related to the Summer Games, such as additional security personnel, have yet to be determined.¹⁰⁸ About 57% of the total has been financed with private resources while 22% has been financed by the state government, 12% by the local government, and 9% by the national government.¹⁰⁹

Many Brazilians view public expenditures on the Olympics as wasteful given the country's difficult financial situation and considerable social disparities. The Temer Administration is currently considering cuts to Brazil's pension system and other social services as part of its efforts to reduce the national government's ballooning budget deficit. Likewise, Rio de Janeiro state, which has already cut expenditures steeply, declared a state of "public calamity" on June 17, warning that the government's lack of finances could "lead to the total collapse of public security, health, education, mobility and environmental management."¹¹⁰ Reports that some Olympic funds were siphoned off by corruption have further bolstered critics of the Games.¹¹¹ Economic analysts assert that the Summer Games may deliver a temporary boost in tax revenues for Rio de Janeiro's local government but are unlikely to have much of an impact on the broader Brazilian economy.

According to Moody's Investors Service, "the key benefit of the 2016 Olympics for the city of Rio will be lasting transport infrastructure improvements" that will reduce traffic congestion and potentially lower business costs.¹¹² The impact and sustainability of those infrastructure projects remains to be seen, however, as efforts to improve Rio de Janeiro's sewage system appear to have done little to clean up the city's polluted waterways and a bike path that was constructed as a legacy project of the Games recently collapsed.¹¹³ Some observers have also called into question the value of the infrastructure improvements, asserting that the funds could have been better invested in upgrading the overburdened infrastructure that Rio de Janeiro residents use on a daily basis.¹¹⁴ Moreover, human rights advocates maintain that more than 4,100 families have been displaced in Rio de Janeiro as a result of projects associated with hosting the Olympics and World Cup.¹¹⁵ According to a July 2016 poll, 63% of Brazilians think the Olympics will bring more costs than benefits for the nation's citizens.¹¹⁶

Doping¹¹⁷

In the run-up to the 2016 Rio Games, American athletes, as well as athletes from other nations, expressed concerns about doping and whether the organizations charged with protecting clean

¹⁰⁸ Marcio Dolzan, "Custo do Rio-2016 Aumenta R\$400 mi e chega a R\$39,07 bi," *Estado de São Paulo*, January 29, 2016.

¹⁰⁹ CRS calculations based on data from the Rio 2016 Organising Committee for the Olympic Games at <https://www.rio2016.com/transparencia/en/budget> and the Autoridade Pública Olímpica at <http://www.apo.gov.br/index.php/home-eng/>.

¹¹⁰ Italo Nogueira, "Rio Declares State of Public Calamity Over Financial Crisis and the Olympics," *Folha de São Paulo*, June 17, 2016.

¹¹¹ "Brazil Olympic Venues Targeted in Corruption Probe," Reuters, May 25, 2016.

¹¹² Moody's Investors Service, *2016 Olympics – Rio de Janeiro: Games Offer Lasting Benefits for City but Only Brief Gains for Brazilian Companies*, May 16, 2016.

¹¹³ "Brazilian Police Probe Whether Water Utility Treats Sewage," Associated Press, April 8, 2016; "Bike Bath, Heralded as Olympic Legacy, Collapses in Brazil," Associated Press, April 22, 2016.

¹¹⁴ "Brazil: Rio Declares Public State of Calamity," *Latin American Weekly Report*, June 23, 2016.

¹¹⁵ World Cup and Olympics Popular Committee, *Rio 2016: The Exclusion Games*, November 2015, p. 36.

¹¹⁶ Datafolha, "Rejeição Dobra e Metade dos Brasileiros é contra Olimpíada," July 19, 2016.

¹¹⁷ Prepared by L. Elaine Halchin, Specialist in American National Government.

athletes were up to the task. Prompting this surge of concern were revelations that the Russian track and field team engaged in a doping scheme orchestrated by the Russian Athletic Federation (RusAF; Russia's national governing body [NGB] for track and field)¹¹⁸ and the perception, if not reality, that the World Anti-Doping Agency (WADA)¹¹⁹ was slow to respond when first made aware of the allegations in 2010, as reported by both the *New York Times* and the television show *60 Minutes*.¹²⁰ The *New York Times* reported there had been “[m]ultiple warnings about Russia” and doping over the years and suggested that possible conflicts of interest might have played a role in WADA's initially tepid response.¹²¹ Concerns that other Russian sports might be similarly tainted by state-orchestrated doping were validated in July 2016 with the publication of another WADA-initiated report that described, among other things, how Russian sports organizations and authorities tampered with Russian athletes' samples during the 2014 Winter Olympics in Sochi, Russia.¹²²

Although the U.S. government is not directly involved in WADA or its anti-doping efforts, it does provide support to the agency. As a signatory to the Copenhagen Declaration on Anti-Doping in Sport, the United States is committed to supporting WADA and the *World Anti-Doping Code* (Code), which includes providing financial support through membership dues.¹²³ Beginning with a payment in 2003 and through 2016, the United States has paid approximately \$25 million to WADA.¹²⁴

¹¹⁸ Prior to January 2016, this organization was known as the All-Russia Athletic Federation (ARAF). A press release dated November 28, 2015, refers to “ARAF” while a January 1, 2016, press release from the same website (<http://eng.rusathletics.com>) refers to “RusAF.” Russian Athletics, “Meeting of ARAF Council,” press release, November 28, 2015, at <http://eng.rusathletics.com/nov/news.15137.htm>; Russian Athletics, “Meeting of RusAF Presidium,” press release, January 16, 2016, at <http://eng.rusathletics.com/nov/news.15210.htm>. For the sake of consistency, this report will refer to the “Russian Athletic Federation” and RusAF, except for instances where “All-Russia Athletic Federation” or “ARAF” appear in a citation or quoted material.

¹¹⁹ WADA is an independent, international organization whose “key activities include scientific research, education, development of anti-doping capacities, and monitoring of the *World Anti-Doping Code* (Code)—the document harmonizing anti-doping policies in all sports and all countries.” World Anti-Doping Agency, “Who We Are,” at <https://www.wada-ama.org/en/who-we-are>.

¹²⁰ Additional, detailed information regarding these concerns is presented in the following subsection. The **Appendix** contains a list of acronyms used in this section of the report.

¹²¹ Rebecca R. Ruiz, Juliet Macur, and Ian Austen, “Even with Confession of Cheating, World's Doping Watchdog Did Nothing,” *New York Times*, June 15, 2016.

¹²² The key findings of the report, dated July 18, 2016, implicate the Moscow Anti-Doping Laboratory, the Sochi Laboratory, and Russia's Ministry of Sport in doping activities. Richard H. McLaren, Independent Person in Sochi Investigation, *The Independent Person Report*, July 18, 2016, at https://wada-main-prod.s3.amazonaws.com/resources/files/20160718_ip_report_final3.pdf.

¹²³ *Copenhagen Declaration on Anti-Doping in Sport*, n.d., at https://wada-main-prod.s3.amazonaws.com/resources/files/WADA_Copenhagen_Declaration_EN.pdf. The Copenhagen Declaration was prepared by many nations' governments. As WADA notes on its website, “[m]any governments cannot be legally bound by a non-governmental document such as the World Anti-Doping Code (Code). Accordingly, governments prepared the Copenhagen Declaration on Anti-Doping in Sport, a political document through which they signaled their intention to formally recognize and implement the Code through an international treaty.” World Anti-Doping Agency, “Governments,” at <https://www.wada-ama.org/en/governments>. The list of signatories to the *Copenhagen Declaration on Anti-Doping in Sport* is available at <https://www.wada-ama.org/en/copenhagen-declaration-list-of-signatories>.

¹²⁴ Executive Office of the President, *National Drug Control Strategy FY 2005 Budget Summary*, March 2004, p. 90, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2005-Budget-Summary-March-2004.pdf; Executive Office of the President, *National Drug Control Strategy FY 2006 Budget Summary*, February 2005, p. 92, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2006-Budget-Summary-February-2005.pdf; Executive Office of the President, *National Drug Control Strategy FY 2007 Budget Summary*, February 2006, p. 98, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2007-Budget-Summary-February-2006.pdf; Executive Office of the President, *National Drug Control Strategy FY 2008 Budget Summary*, February 2007, p. 107, at (continued...)

The allegations involving Russia and WADA's anti-doping role have drawn the attention of the Senate Committee on Commerce, Science, and Transportation and the House Committee on Energy and Commerce. In a June 20, 2016, letter addressed to the president of WADA, the chairman of the Senate committee noted that WADA had been made aware, in 2010, that Russian athletes were involved in a government-sanctioned doping scheme; that WADA's independence had been called into question; and that representatives of Olympic athletes had called upon WADA to expand its investigation to other sports in Russia and other countries.¹²⁵ The House Committee on Energy and Commerce raised similar concerns in a July 12, 2016, letter to the President of the IOC while acknowledging the work that the IOC and WADA have done to enhance their efforts to ensure athletes compete in doping-free sports. One of the challenges identified by the committee is that "neither [WADA nor the IOC] is functionally organized to achieve [the goal of eradicating doping in sport]."¹²⁶

The Russian Athletics Federation and Doping

On December 3, 2014, a documentary aired on German television alleging "the existence of a sophisticated and well established system of state-sponsored doping with the All-Russia Athletics Federation (ARAF)."¹²⁷ In the aftermath of the documentary, WADA formed an Independent Commission (IC) to investigate. The investigation, which began in January 2015, concluded with the publication of two reports, the first of which focused on the allegations presented in the

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https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2008-Budget-Summary-February-2007.pdf; Executive Office of the President, *National Drug Control Strategy FY 2009 Budget Summary*, February 2008, p. 119, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2009-Budget-Summary-February-2008.pdf; Executive Office of the President, *National Drug Control Strategy FY 2010 Budget Summary*, May 2009, p. 137, at <https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/fy10budget.pdf>; Executive Office of the President, *National Drug Control Strategy FY 2011 Budget Summary*, 2010, p. 157, at <https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/fy11budget.pdf>; Executive Office of the President, *FY 2012 Budget and Performance Summary, Companion to the National Drug Control Strategy*, April 2011, p. 217, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/FY2012-Budget-and-Performance-Summary-April-2011.pdf; Executive Office of the President, *FY 2013 Budget and Performance Summary, Companion to the National Drug Control Strategy*, April 2012, p. 221, at https://www.whitehouse.gov/sites/default/files/ondcp/fy2013_drug_control_budget_and_performance_summary.pdf; Executive Office of the President, *FY 2014 Budget and Performance Summary, Companion to the National Drug Control Strategy*, April 2013, p. 235, at https://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/fy2014_budget_and_performance-summary.pdf; Executive Office of the President, *FY 2015 Budget and Performance Summary, Companion to the National Drug Control Strategy*, July 2014, p. 239, at https://www.whitehouse.gov/sites/default/files/ondcp/about-content/fy2015_summary.pdf; Executive Office of the President, *FY 2016 Budget and Performance Summary, Companion to the National Drug Control Strategy*, November 2015, p. 231, at https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/fy_2016_budget_summary.pdf. All of the amounts used in calculating the total are the actual amounts paid except for FY2015 (\$2.00 million was the amount in the bill that was enacted) and FY2016 (\$2.06 million was the amount requested). Ibid.

¹²⁵ Letter from John Thune, Chairman, Senate Committee on Commerce, Science, and Transportation, to Sir Craig Reddie, CBE, President, World Anti-Doping Agency, June 20, 2016, pp. 2-5, at https://www.commerce.senate.gov/public/_cache/files/4bffa8b6-a87d-4b72-a17e-22511f34d3d8/1ECF41B6AB25AB09371463BEA1B5168B.jrt-letter-to-wada—final.pdf.

¹²⁶ Letter from Fred Upton, Chairman, House Committee on Energy and Commerce, et al. to Thomas Bach, President, International Olympic Committee, July 12, 2016.

¹²⁷ World Anti-Doping Agency, Independent Commission, *The Independent Commission Report #1, Final Report*, November 9, 2015, p. 2, at https://wada-main-prod.s3.amazonaws.com/resources/files/wada_independent_commission_report_1_en.pdf.

German television documentary.¹²⁸ The November 2015 report's findings are summarized as follows:¹²⁹

1. A “deeply rooted culture of cheating” exists, meaning “the acceptance of cheating at all levels is widespread and longstanding.”
2. The exploitation of athletes is acceptable, which has resulted in “unethical behaviours and practices ... becom[ing] the norm.”
3. Many Russian athletes have participated in the “consistent and systematic use of performance enhancing drugs.”
4. Doctors, coaches, and laboratory personnel have been involved in systematic cheating.¹³⁰

The report included two notable caveats. Although there were “reliable indications” that other sports in Russia had doping problems, the IC stated these sports were outside the scope of what it had been directed to investigate.¹³¹ The commission also stated that, “in its considered view, Russia is not the only country, nor track and field the only sport, facing the problem of orchestrated doping in sport.”¹³²

Publication of the report in November 2015 was immediately followed by responses from the Council of the International Association of Athletics Federations (IAAF), which is the international federation (IF) for track and field, and WADA. The IAAF “provisionally suspended the All-Russia Athletic Federation (ARAF) [RusAF] as an IAAF Member with immediate effect.”¹³³ A significant consequence of this suspension is the prohibition on RusAF athletes and support personnel from competing in international competitions, including the Olympic Games.¹³⁴

¹²⁸ Publication of the IC's second report “was delayed to avoid possible interference” with an investigation by the French authorities. Additionally, the second report covers developments that occurred following the release of the IC's first report, including allegations made by the media that the IAAF's anti-doping activities were inadequate. World Anti-Doping Agency, Independent Commission, *The Independent Commission Report #2*, January 14, 2016, p. 1, at https://wada-main-prod.s3.amazonaws.com/resources/files/wada_independent_commission_report_2_2016_en_rev.pdf.

¹²⁹ Although documentation of RusAF's doping activities (and other Russian organizations' involvement) was made publicly available in November 2015, the transcript of a *60 Minutes* interview with two of the whistleblowers and several *New York Times* and *Washington Post* articles indicate that WADA was made aware of the allegations possibly as early as 2009 or 2010. Will Hobson, “Alerted to Doping in ‘10, WADA Didn't Investigate,” *Washington Post*, June 3, 2016, p. A10; Ruiz, Macur, and Austen, “Even with Confession of Cheating, World's Doping Watchdog Did Nothing”; Armen Keteyian, “Russian Doping at Sochi Winter Olympics Exposed,” *60 Minutes*, transcript, May 8, 2016 (air date), at <http://www.cbsnews.com/news/russian-doping-at-sochi-winter-olympics-exposed/>. In defending itself from criticism that it was slow to act initially when contacted by Vitaly Stepanov, reportedly WADA has indicated that, at the time, it had neither the authority, nor sufficient resources, to conduct investigations. Ruiz, Macur, and Austen, “Even with Confession of Cheating, World's Doping Watchdog Did Nothing.”

¹³⁰ World Anti-Doping Agency, Independent Commission, *The Independent Commission Report #1, Final Report*, pp. 10-11.

¹³¹ *Ibid.*, p. 35.

¹³² World Anti-Doping Agency, Independent Commission, *The Independent Commission Report #1, Final Report*, p. 35.

¹³³ International Association of Athletics Federations, “IAAF Provisionally Suspends Russian Member Federation ARAF,” November 13, 2015, press release, at <http://www.iaaf.org/news/press-release/iaaf-araf-suspended>.

¹³⁴ The IAAF's decision provided two circumstances under which a Russian track and field athlete could apply to the IAAF for permission to compete in international competitions as a “neutral athlete.” International Association of Athletics Federations, “RusAF Has Not Met Reinstatement Conditions.” However, the IOC subsequently determined that the Olympic Charter does not provide for an individual to be recognized as a “neutral athlete.” International (continued...)

WADA's response was to suspend provisionally the Moscow Antidoping Center; recommend that the head of the center, Dr. Grigory Rodchenkov, be permanently removed (he immediately resigned); and assess the compliance of the Russian Anti-Doping Agency (RUSADA) with the *World Anti-Doping Code*.¹³⁵ In a separate, subsequent press release, WADA announced that RUSADA was not in compliance with the *Code*.¹³⁶

In June 2016, the IAAF Council met to consider whether RusAF had satisfied the reinstatement conditions.¹³⁷ The IAAF Taskforce's report to the council stated that several verification criteria had not been met and included several recommendations, all of which were accepted by the IAAF Council. Concurring with the taskforce's recommendations, the IAAF decided that RusAF should not be reinstated, a decision that was supported by both the IOC and WADA, and that no other RusAF personnel (such as officials and athlete support personnel) be allowed to take part in international competitions or the IAAF while RusAF is suspended.¹³⁸

In July 2016, the Russian Olympic Committee and individual Russian track and field athletes filed requests for arbitration with the Court of Arbitration for Sport (CAS) regarding the IAAF's decisions. The CAS arbitration panel ruled in favor of the IAAF, thus upholding the ban on Russia's track and field athletes.¹³⁹

2014 Sochi Winter Olympics and Doping

Several months after WADA released the IC's report, allegations surfaced in the media regarding a doping scheme to benefit Russian athletes during the Sochi Games.¹⁴⁰ On May 19, 2016, the

(...continued)

Olympic Committee, "Decision of the IOC Executive Board Concerning the Participation of Russian Athletes in the Olympic Games Rio 2016," press release, July 24, 2016, at <https://www.olympic.org/news/decision-of-the-ioc-executive-board-concerning-the-participation-of-russian-athletes-in-the-olympic-games-rio-2016>.

¹³⁵ World Anti-Doping Agency, "WADA Takes Immediate Action on Key Recommendations of Independent Commission," press release, November 13, 2015, at <https://www.wada-ama.org/en/media/news/2015-11/wada-takes-immediate-action-on-key-recommendations-of-independent-commission>.

¹³⁶ World Anti-Doping Agency, "Foundation Board Media Release: WADA Strengthens Anti-Doping Worldwide," November 18, 2015, at <https://www.wada-ama.org/en/media/news/2015-11/foundation-board-media-release-wada-strengthens-anti-doping-worldwide>. Several months later, WADA revoked the accreditation of the Moscow Antidoping Center because of its failure to comply with WADA's *International Standard for Laboratories*, which means the center is prohibited from conducting any doping tests on behalf of WADA or any other testing authority. World Anti-Doping Agency, "WADA Revokes Accreditation of Moscow Laboratory," press release, April 15, 2016, at <https://www.wada-ama.org/en/media/news/2016-04/wada-revokes-accreditation-of-moscow-laboratory>.

¹³⁷ The reinstatement conditions and criteria are available at <http://www.iaaf.org/news/press-release/araf-reinstatement-verification-criteria>.

¹³⁸ International Association of Athletics Federations, "RusAF Has Not Met Reinstatement Conditions," press release, June 17, 2016, at <http://www.iaaf.org/news/press-release/iaaf-council-meeting-vienna>; International Olympic Committee, "Statement by the IOC Executive Board," press release, June 18, 2016, at <https://www.olympic.org/news/statement-by-the-ioc-executive-board-1>; World Anti-Doping Agency, "WADA Supports IAAF Decision to Maintain Russian Athletics Federation Suspension," press release, June 17, 2016, at <https://www.wada-ama.org/en/media/news/2016-06/wada-supports-iaaf-decision-to-maintain-russian-athletics-federation-suspension..>

¹³⁹ Tribunal Arbitral du Sport/Court of Arbitration for Sport, "Athletics – Olympic Games Rio 2016," media release, July 21, 2016, at http://www.tas-cas.org/fileadmin/user_upload/Media_Release_4684_210716.pdf. Established in 1984, the CAS is an independent organization that provides services to facilitate the settlement of disputes involving sports, whether of a criminal nature or a disciplinary nature. Tribunal Arbitral du Sport/Court of Arbitration for Sport, "Frequently Asked Questions," at <http://www.tas-cas.org/en/general-information/frequently-asked-questions.html>.

¹⁴⁰ Armen Keteyian, "Russian Doping at Sochi Winter Olympics Exposed," *60 Minutes*, transcript, May 8, 2016 (air date), at <http://www.cbsnews.com/news/russian-doping-at-sochi-winter-olympics-exposed/>; Rebecca R. Ruiz and Michael Schwartz, "Russian Insider Says State-Run Doping Fueled Olympic Gold," *New York Times*, May 12, 2016.

President of WADA announced that Professor Richard H. McLaren would lead the investigation.¹⁴¹ The key findings of Professor McLaren's report, known as the Independent Person (IP) Report and dated July 18, 2016, implicate the Moscow Anti-Doping Laboratory, the Sochi Laboratory, and Russia's Ministry of Sport in doping activities.¹⁴² In addition to documenting the "urine sample swapping scheme" that was implemented during the Sochi Games, the IP Report uncovered what it called the "Disappearing Positive Methodology," which it characterized as "a State directed method [implemented] following the very abysmal medal count" by Russian athletes at the 2010 Vancouver Winter Olympics.¹⁴³ As documented in the IP Report, the Russian Deputy Minister of Sport would review positive test results provided by the Moscow Anti-Doping Laboratory and issue an order, SAVE or QUARANTINE, to the laboratory for each result.¹⁴⁴ A SAVE order meant that the laboratory was to stop the analytical process and report to WADA's Anti-Doping Administration and Management System (ADAMS) that the sample was negative. A QUARANTINE order directed the laboratory to continue processing the sample. The IP Report states that, generally, the SAVE order was used for athletes who "tended to be medal winners or athletes of promise," while the QUARANTINE order was used for "[f]oreign athletes, or Russian athletes deemed unpromising."¹⁴⁵ The Disappearing Positive Methodology was used "from at least late 2011 to August 2015 ... and affected athletes from all sport disciplines whose urine samples were being analyzed by the Moscow Laboratory."¹⁴⁶

Ramifications of the IC Report and IP Report

Russian Athletes

In the aftermath of the release of the IC Report and the IP Report, on July 24, 2016, the IOC issued conditions Russian athletes must meet to be eligible to compete in Rio de Janeiro.¹⁴⁷ Chief among these is an athlete's anti-doping record, which may include "only reliable adequate international tests."¹⁴⁸ Additionally, the international federations, which are responsible for deciding which athletes are eligible to participate in the Olympic Games, have been advised by the IOC that an absence of positive doping test results will not be considered sufficient in establishing that an athlete has not doped.¹⁴⁹ The IOC will accept a Russian athlete for participation in the Rio Games only if the relevant IF "is satisfied that the evidence provided" meets the IOC's conditions and the IF's determination is "upheld by an expert from the CAS list

¹⁴¹ World Anti-Doping Agency, "WADA Names Richard McLaren to Sochi Investigation Team," press release, May 19, 2016, at <https://www.wada-ama.org/en/media/news/2016-05/wada-names-richard-mclaren-to-sochi-investigation-team>.

¹⁴² Richard H. McLaren, Independent Person in Sochi Investigation, *The Independent Person Report*, July 18, 2016, at https://wada-main-prod.s3.amazonaws.com/resources/files/20160718_ip_report_final3.pdf.

¹⁴³ *Ibid.*, p. 10.

¹⁴⁴ *Ibid.*, pp. 31-36. The code words (SAVE and QUARANTINE) are capitalized in the IP Report.

¹⁴⁵ *Ibid.*, p. 36.

¹⁴⁶ *Ibid.*, pp. 35-36.

¹⁴⁷ Russia's track and field athletes are still subject to the IAAF's decision to not reinstate RusAF. See the section "The Russian Athletics Federation and Doping."

¹⁴⁸ International Olympic Committee, "Decision of the IOC Executive Board Concerning the Participation of Russian Athletes in the Olympic Games Rio 2016."

¹⁴⁹ *Ibid.* In this context, the word "national" appears to refer to analysis by a Russian doping laboratory. In making eligibility determinations, the IFs are to apply the *Code* and the principles agreed to by the June 21, 2016, Olympic Summit. The Olympic Summit's statement is available at <https://www.olympic.org/news/declaration-of-the-olympic-summit>.

of arbitrators....”¹⁵⁰ Russian athletes who have been sanctioned previously for doping, or who are unable to meet the IOC’s criteria, will not be allowed to compete in the 2016 Games.¹⁵¹

The consequences for the Russian Olympic Committee include an estimated 30% decrease in the size of the Russian team competing in the 2016 Games. As announced by the IOC on August 4, 2016, the Russian Olympic team numbers 271 athletes; the original entry list for the ROC included 389 athletes.¹⁵² The number of Russian athletes competing in Rio de Janeiro may change, however. On August 8, 2016, CBS News reported that seven Russian swimmers who had been banned initially from participating in the Rio Games are now permitted to compete although “FINA has not fully explained why.”¹⁵³ Reportedly, one of the Russian swimmers participated in a 100-meter breaststroke semifinal on August 7, 2016.¹⁵⁴

Russia’s paralympic team has also been affected by the doping revelations. The International Paralympic Committee (IPC) opened suspension proceedings against the Russian Paralympic Committee (RPC) in late July.¹⁵⁵ On August 7, 2016, the IPC announced it had suspended the RPC, effective immediately. The suspension means the Russian Paralympic Committee is not permitted to enter its athletes in the Rio 2016 Paralympic Games, which will be held September 7-18, 2016. However, the RPC may appeal the IPC’s decision and has 21 days (August 28, 2016) to do so.¹⁵⁶

Other Athletes

On June 21, 2016, the IOC convened an Olympic Summit for the purpose of ensuring “a level playing field for all athletes participating” in the 2016 Games. Among other things, the IOC advised IFs and national Olympic committees (NOCs; e.g., U.S. Olympic Committee) to take all necessary actions to prevent “doped athletes” from participating in the 2016 Games, to broaden their efforts to include sanctioning any athlete support personnel who are implicated in doping, and to refrain from requesting accreditation for the Games for “any person currently implicated in an anti-doping rule violation.”¹⁵⁷ The Olympic Summit also stated that athletes from Russia and Kenya are not entitled to the “presumption of innocence” because neither is in compliance with the *Code* and “substantial allegations” exist regarding these countries’ sports organizations.¹⁵⁸

Though it does not appear that the scope of Kenya’s doping problems approaches that of Russia’s, Kenya has been beset by a series of issues. In November 2015, the IAAF Ethics Commission

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² International Olympic Committee, “IOC Review Panel Decides on the Participation of Russian Athletes at the Olympic Games Rio 2016,” August 4, 2016, press release, at <https://www.olympic.org/news/ioc-review-panel-decides-on-the-participation-of-russian-athletes-at-the-olympic-games-rio-2016>.

¹⁵³ “American Olympic Swimmer Calls Out ‘Drug Cheating’ Russian Champion,” *CBSNEWS*, August 8, 2016, at <http://www.cbsnews.com/news/doping-cheating-yulia-eifmova-lilly-king-olympics-rio-swimming-rivalry/>.

¹⁵⁴ Ibid.

¹⁵⁵ International Paralympic Committee, “The IPC Opens Suspension Proceedings Against NPC Russia,” press release, July 22, 2016, at <https://www.paralympic.org/news/ipc-opens-suspension-proceedings-against-npc-russia>.

¹⁵⁶ International Paralympic Committee, “The IPC Suspends the Russian Paralympic Committee with Immediate Effect,” August 7, 2016, press release, at <https://www.paralympic.org/news/ipc-suspends-russian-paralympic-committee-immediate-effect>.

¹⁵⁷ International Olympic Committee, “Declaration of the Olympic Summit, Five-Point Plan to Ensure a Level Playing Field for Athletes at the Olympic Games Rio 2016,” press release, June 21, 2016, at <https://www.olympic.org/news/declaration-of-the-olympic-summit>.

¹⁵⁸ Ibid.

provisionally suspended three Kenyan track and field officials; the commission extended the suspension on May 20, 2016.¹⁵⁹ WADA declared, on May 12, 2016, that the Anti-Doping Agency of Kenya is not compliant with the *Code*.¹⁶⁰ Also in 2016, a news article reported that the chief executive of Kenya's track and field association, Athletics Kenya, solicited bribes from two Kenyan athletes in return for reducing their suspensions for doping.¹⁶¹ A journalist for the *New York Times* summarized Kenya's problems as follows:

Kenya cannot assure the world that any of its athletes is drug-free, at least based on evidence collected by its national antidoping program. World Anti-Doping Agency officials say the Kenyan antidoping agency exists in name only. The government established the agency in the past year [2015] but has yet to finance it, WADA officials recently told [the journalist]. "There's just no political will for it, even though they've been encouraged, persuaded, cajoled by us," David Howman, WADA's director general, said of WADA's effort to help Kenya put antidoping measures into effect over the past two-plus years. "It's reached a crisis point, really."¹⁶²

Re-testing of Samples from Previous Summer Olympics

In spring 2016, the IOC decided to re-test samples from the 2008 Beijing Games and the 2012 London Games.¹⁶³ To date, two of the four rounds, or waves, of re-testing have taken place. Focusing on athletes who might participate in the 2016 Rio Games, 454 samples obtained during the 2008 Beijing Games were re-tested in the first round. The results indicated that 30 athletes from 6 sports and 12 countries had tested positive.¹⁶⁴ The second round involved re-testing 386 samples and yielded 30 positive results, 23 of which were from athletes who were awarded a medal during the Beijing Olympics.¹⁶⁵ These positive results were from four sports and eight nations.¹⁶⁶ On May 27, 2016, the IOC announced that, in the first round of re-testing, analysis of

¹⁵⁹ International Association of Athletics Federations, "IAAF Ethics Commission Provisionally Suspends Kiplagat, Okeyo, and Kinyua," press release, November 30, 2015, at <http://www.iaaf.org/news/press-release/iaaf-ethics-suspend-kiplagat-okeyo-kinyua>; Panel of the IAAF Ethics Board, International Association of Athletics Federations, Decision Number 04/2016, June 29, 2016, at <http://www.iaafethicsboard.org/Download/download?filename=d9c62df4-e2a0-461f-8762-ca8c133ed2f1.pdf&urlslug=Ethics%20Board%20Decision%20E2%80%93%20JK%2C%20IK%2C%20DO%20E2%80%93%20Decision%20Number%2004%2F2016>

¹⁶⁰ World Anti-Doping Agency, "WADA hears Calls for Tougher Consequences for Non-Compliance and Further Investigations," media release, May 12, 2016, at <https://www.wada-ama.org/en/media/news/2016-05/foundation-board-media-release-12-may-2016>.

¹⁶¹ Associated Press, "2 Kenyan Athletes Accuse Executive of Seeking Bribes to Cut Their Bans," *New York Times*, February 10, 2016.

¹⁶² Juliet Macur, "Kenya Excels in Running but Lags in Antidoping," *New York Times*, November 4, 2015.

¹⁶³ International Olympic Committee, "Factsheet The Fight Against Doping and Promotion of Athletes' Health," January 2014, p. 2, at https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Olympic-Studies-Centre/List-of-Resources/Quick-references/Olympism-and-society/EN-Factsheet-The-fight-against-doping-and-promotion-of-athletes-health.pdf#_ga=1.66451943.879522158.1448460117. To enable additional testing (i.e., re-testing) as technology advances and previously-unknown substances are identified, which may serve as a deterrent to athletes tempted to cheat through doping, the IOC retains athletes' samples for up to 10 years. International Olympic Committee, "The IOC Takes Decisive Action to Protect the Clean Athletes – Doped Athletes from Beijing, London and Sochi All Targeted," press release, May 17, 2016, at <http://www.olympic.org/news/the-ioc-takes-decisive-action-to-protect-the-clean-athletes-doped-athletes-from-beijing-london-and-sochi-all-targeted/249221>.

¹⁶⁴ International Olympic Committee, "Second Wave of Reanalysis Reveals Banned Substances in 45 Athletes from Beijing and London," press release, July 22, 2016, at <https://www.olympic.org/news/second-wave-of-reanalysis-reveals-banned-substances-in-45-athletes-from-beijing-and-london>.

¹⁶⁵ *Ibid.*

¹⁶⁶ *Ibid.*

265 samples from the 2012 London Games resulted in positive tests for 23 athletes from 5 sports and 6 countries.¹⁶⁷ The second round yielded 15 positive tests from a pool of 138 samples involving 2 sports and 9 countries.¹⁶⁸ To summarize, the re-analysis of 1,243 samples from the Beijing and London Games in rounds one and two resulted in 98 positive tests.

Other Athletes' Concerns

The implications of this situation, including the IC Report and the IP Report, extend beyond the consequences for Russian sports organizations, athletes, and officials. Other athletes (in particular, non-Russian athletes) have a vested interest in the outcomes of the investigation and related matters.

Following the release of the IC report in November 2015 and prior to the IAAF's June 2016 decision to uphold the suspension of RusAF, several organizations that represent the interests of Olympic athletes shared their concerns with the heads of the IOC and WADA. Generally, the representatives of the athletes organizations, in separate communications, expressed dissatisfaction with WADA's or the IOC's actions, and advocated for both organizations to do more to protect clean athletes and to protect sports in all countries.¹⁶⁹ A common theme was the call for an expanded investigation into other countries and other Russian sports.¹⁷⁰ As the chair of the WADA's Athlete Committee stated in a speech, the IC's report noted the "complete and utter implausibility" of the orchestrated doping system in Russia serving only track and field athletes.¹⁷¹ One month prior to the IAAF's decision on RusAF, the chairs of the IOC's Athletes' Commission and WADA's Athlete Committee expressed, in a letter to the presidents of the IOC and WADA, their shared constituency's perspective: "... [A]t this time athlete confidence in the Anti-Doping system, in WADA, and in the IOC has been shattered."¹⁷²

While the IAAF's decision to suspend RusAF—thus prohibiting Russian track and field athletes from competing in the 2016 Games—was welcomed by the IOC Athletes Commission and the WADA Athlete Committee,¹⁷³ it remains to be seen how athletes respond to the IOC's decision

¹⁶⁷ International Olympic Committee, "Reanalysis Reveals Banned Substances in 23 'A' Samples from London 2012," press release, May 27, 2016, at <https://www.olympic.org/news/reanalysis-reveals-banned-substances-in-23-a-samples-from-london-2012>.

¹⁶⁸ International Olympic Committee, "Second Wave of Reanalysis Reveals Banned Substances in 45 Athletes from Beijing and London."

¹⁶⁹ Sarah Konrad, Chair, USOC Athletes' Advisory Council, letter to Thomas Bach, President, International Olympic Committee, and Sir Craig Reedie, President, World Anti-Doping Agency, January 25, 2016; Beckie Scott, Chair, Athlete Committee, World Anti-Doping Agency, letter to Sir Craig Reedie, President, World Anti-Doping Agency, March 11, 2016; Beckie Scott, Chair, Athlete Committee, World Anti-Doping Agency, speech, meeting of the World Anti-Doping Agency Foundation Board, May 11, 2016; Claudia Bokel, Chair, Athletes' Commission, International Olympic Committee, and Beckie Scott, Chair, Athlete Committee, World Anti-Doping Agency, letter to Thomas Bach, President, International Olympic Committee, and Sir Craig Reedie, President, World Anti-Doping Agency, May 18, 2016.

¹⁷⁰ Konrad, letter to Thomas Bach; Scott, letter to Sir Craig Reedie.

¹⁷¹ Scott, speech.

¹⁷² Bokel and Scott, letter to Bach and Reedie.

¹⁷³ Beckie Scott, Chair, Athlete Committee, World Anti-Doping Agency, and Claudia Bokel, Chair, Athletes' Commission, International Olympic Committee, "Statement from Claudia Bokel, Chair of the IOC Athlete Commission, and Beckie Scott, Chair of the WADA Athlete Committee, on the Decision of the IAAF to Uphold and Continue the Current Suspension of the Russian Federation," tweet, Beckie Scott (@BeckieScott4), June 17, 2016.

not to impose an outright ban on Russian athletes. As reported by the *New York Times* and *Wall Street Journal*, other stakeholders have been critical of the IOC's decision.¹⁷⁴

Protecting Clean Athletes Post-2016 Rio Games

The IC and IP Reports emphasize the need for strengthening efforts to protect clean athletes, which was begun by the IOC in late December 2014.

Following the 127th IOC Session, which was held on December 7, 2014, the IOC changed its philosophy with regard to doping and called for greater independence for WADA. Effective August 2, 2015, the Olympic Charter states that the IOC's role is, in part, "to protect clean athletes and the integrity of sport, by leading the fight against doping...."¹⁷⁵ Previously, the Charter stated that the role of the IOC with regard to doping was "to lead the fight against doping in sport."¹⁷⁶ Explaining its change in philosophy, the IOC wrote, in part,

The Olympic Movement is all about the clean athletes. They are our best ambassadors, they are our role-models, they are our treasure. Therefore we have first and foremost to protect the clean athletes. We have to protect them from doping, match-fixing, manipulation and corruption. We have to change our way of thinking. We have to consider every single cent in the fight against these evils not as an expense but as an investment in the future of Olympic Sport. We have to realize that catching the cheats is extremely important but only a means to an end—the protection of the clean athletes.¹⁷⁷

Since changing the Olympic charter, the IOC has taken, or proposed, several steps to enhance the protection of clean athletes. At its October 2015 Olympic Summit, the IOC proposed that the testing of athletes should be independent from sports organizations and requested that WADA lead a working group to study the proposal that it (WADA) take responsibility for testing.¹⁷⁸ In December 2015, the IOC's Executive Board unanimously adopted a declaration that included proposals for WADA and CAS. The executive board proposed that WADA establish an independent entity for testing and results management, that the new entity include a unit dedicated to intelligence collection, and that "sports organisations should transfer their doping control operations to this new organisation."¹⁷⁹ The IOC Executive Board's proposal involving CAS stated that the court should be the body that pronounces doping sanctions. This change, according to the board, would centralize the system of sanctions and be cost efficient while

¹⁷⁴ Rebecca R. Ruiz, "I.O.C. Forces Russians to Prove They Have a Drug-Free Past," *New York Times*, July 24, 2016; Matthew Futterman and Sara Germano, "IOC Stops Short of Banning Entire Russian Delegation from Rio Olympics," *Wall Street Journal*, July 24, 2016.

¹⁷⁵ International Olympic Committee, *Olympic Charter*, September 2015, p. 18, at https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/General/EN-Olympic-Charter.pdf#_ga=1.46370914.497553849.1456945898.

¹⁷⁶ International Olympic Committee, *Olympic Agenda 2020, Context and Background*, December 9, 2014, p. 56, at https://stillmed.olympic.org/Documents/Olympic_Agenda_2020/Olympic_Agenda_2020-Context_and_background-ENG.pdf.

¹⁷⁷ International Olympic Committee, *Olympic Agenda 2020, 20+20 Recommendations*, n.d., p. 4, at https://stillmed.olympic.org/Documents/Olympic_Agenda_2020/Olympic_Agenda_2020-20-20_Recommendations-ENG.pdf. (Boldface in original.)

¹⁷⁸ International Olympic Committee, "Fourth Olympic Summit Communique," October 17, 2015, at https://stillmed.olympic.org/Documents/Conferences_Forums_and_Events/2015-Olympic-Summit/2015_10-17_Communique_Olympic_Summit-English.pdf.

¹⁷⁹ International Olympic Committee, "IOC Executive Board Adopts Declaration on Good Governance in Sport and the Protection of Clean Athletes," December 10, 2015, at <https://www.olympic.org/news/ioc-executive-board-adopts-declaration-on-good-governance-in-sport-and-the-protection-of-clean-athletes>.

creating a more “harmonised anti-doping system among all sports and all countries.”¹⁸⁰ Finally, the IOC has called on WADA to convene an “Extraordinary World Conference on Doping” in 2017.¹⁸¹

¹⁸⁰ Ibid.

¹⁸¹ International Olympic Committee, “Declaration of the Olympic Summit, Five-Point Plan to Ensure a Level Playing Field for Athletes at the Olympic Games Rio 2016.”

Appendix. Anti-Doping Acronyms

Glossary

ADAK	Anti-Doping Agency of Kenya
ARAF	All-Russia Athletics Federation (predecessor to the Russian Athletic Federation [RusAF])
IAAF	International Association of Athletics Federations
IF	International federation
IOC	International Olympic Committee
IPC	International Paralympic Committee
ISL	<i>International Standard for Laboratories</i> ¹⁸²
IWF	International Weightlifting Federation
NADO	National anti-doping agency
NGB	National governing body
NOC	National Olympic committee
NPC	National Paralympic Committee
Rio2016™	Rio 2016 Organising Committee for the Olympic Games
ROC	Russian Olympic Committee
RPC	Russian Paralympic Committee
RUSADA	Russian Anti-Doping Agency
RusAF	Russian Athletic Federation (previously known as the All-Russia Athletics Federation [ARAF])
USADA	U.S. Anti-Doping Agency
USOC	U.S. Olympic Committee
WADA	World Anti-Doping Agency

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