

## Incentivizing Climate Action by Caribbean Sport Organizations

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There is increasing recognition that the benefits of sport participation are at risk from climate change, and that sport also contributes to the problem of climate change. Sport, especially giga, mega and major events at amateur and professional levels, contribute to global warming through increased carbon emissions from travel and construction which destroys nature, reducing biodiversity and carbon sinks.<sup>1</sup> Many international organizations seeking to increase sport participation are signatories on policy documents targeting reduction in carbon emissions and global warming. Sport organizations in Caribbean Small Island Developing States (SIDS) are severely underfunded and attention to climate change is inadequate for the sustainability of sport in the region. The central question of this paper is whether regional and international organizations should provide incentives for climate action to sport organizations in Caribbean SIDS. I provide two reasons for incentivizing climate action among sport organizations: a) sport provides significant health, social, political, economic benefits, and any failure to address climate change undermines these benefits and b) commitments have been made by international, regional and local organizations to climate action and there is alignment between these commitments and goals for sport, health and development. I conclude that international organizations like the International Olympic Committee (IOC) and global sports networks such as the Fédération Internationale de Football Association (FIFA) should provide climate incentives for action in the form of education, adaptation and resilience to sport organizations in Caribbean SIDS.

### Global Organizations' Targets and Sport

Sport is a fundamental right for everyone<sup>2</sup> and is defined as *"any activity that requires a significant level of physical involvement in which participants engage in either structured or unstructured environments for the purpose of declaring a winner, though not solely so; or purely for relaxation, personal satisfaction, physical health, emotional growth and develop-*

*ment."*<sup>3</sup> In 1983, because of the positive impact of sport on health and wellbeing, the International Olympic Committee (IOC) established the Sport for All Commission which provides global support to International Sports Federations, National Olympic Committees, National Sport Organisations, and other recognised partners to increase sport participation through creation of high-quality, accessible programs.<sup>4</sup> The developing world is of particular importance to this commission due to the high prevalence of chronic diseases, which additionally increases the population's vulnerability to global warming, and which can be mitigated against through increased sport and physical activity.<sup>5</sup>

The global incidence for preventable chronic diseases between 2020 to 2030 is estimated to be 500 million with 74% from low-and middle-income countries (LMICs) accounting for about US\$300 billion dollars in medical costs.<sup>6</sup> The WHO, guided by strong evidence on the positive impact of physical activity on chronic disease prevention, has set ambitious targets for increasing physical activity by 2030.<sup>7</sup> The "let's be active" campaign is a WHO initiative intended to shift the needle on participation in physical activity with hopes of recognizing benefits such as improvement in physical and mental health and wellbeing; reduction in chronic disease risk and burden; improvement in neuromuscular function; and reduction in depression risk and improved life satisfaction.<sup>8</sup> In 2022 the IOC and WHO joined forces to prepare toolkits to grow community sport.<sup>9</sup> In 2023 they were joined by a new partner, PATH (Program for Appropriate Technology in Health), with a target to increase access to health-enhancing community sport activities for over one million people across five countries by 2025.<sup>10</sup>

In 2013, the United Nations (UN), recognizing the powerful social impact of sport, declared April 6th as the International Day of Sport for Development and Peace.<sup>11</sup> In 2015, sport was included as an important enabler for accomplishing eleven of the UN's seventeen sustainable development goals.<sup>12</sup> This led to the birth of the IOC's Olympism 365

movement, with one objective being to “Ensure more people, from more diverse backgrounds, benefit from participating in community sports programmes and accessing Olympism 365 days a year.”<sup>13</sup> The UN has long spearheaded many of its own sport initiatives through the United Nations Office on Sport for Development and Peace (UNOSDP), established in 2001.

Increased physical activity of individuals helps limit morbidity and mortality associated with chronic disease and enhances resilience and physiological adaptation to global warming.<sup>14</sup> As international organizations seek to grow sport participation, it is essential that they recognize that their targets can be undermined by global warming. As of June 2024, the global community remains off track on meeting the 2030 physical activity targets<sup>15</sup> and so international organizations should better support the sport sector in climate action including climate education, resilience, and adaptation as a specific type of resilience.

### **Sport and Climate Action**

Caribbean SIDS are relatively insignificant contributors to the carbon emissions that cause global warming. The contribution from their sport sector is microscopic. Nonetheless, the adverse impact of global warming threatens the continued growth and development of safe sport in the region. Resilience is key to the survival of sport, and the health and wellbeing of people in the region. By resilience I mean anticipating and implementing mechanisms to minimize the impact of or recover rapidly from adverse events associated global warming. This includes adaptive strategies such as infrastructure modification and, temperature warning systems. The sport sector in and beyond the Caribbean can play a role in effecting change by prioritizing climate action that preserves future of safe sport.

Sport has a global reach. Athletes are considered heroes and role models for people everywhere and they can be important advocates for climate action. Globally billions of people tune in to events like Soccer World Cup, Cricket World Cup and Olympics. Regionally, millions tune in daily to watch their favourite teams. In 2023 SportsMax (a regional broadcasting company) recorded over 36 million viewers for the Women’s Caribbean Premier League; approximately 80% of the Caribbean’s population.<sup>16</sup> This global reach means that sport organizations are well-positioned to educate and promote climate action among a wide swath of the global population. They can use this platform to educate their communities about climate change; they can encourage athletes to adopt and model behaviours to raise climate awareness in fans and they can initiate and support activities that restore balance to our microclimate. For example, in 2022 Caribbean Olympians supported and lobbied fans to contribute to a tree planting campaign, led by Word Athletics, to mitigate against carbon emissions associated with the 2022 Caribbean Free Trade Association Games held in Jamaica. In October 2023 the Caribbean Association of Na-

tional Olympic Committees (CANOC), with international partners, conducted a workshop for their members on sport and climate change.

The undisputed benefits of sport and physical activity have led to global campaigns spearheaded by international organizations like the IOC, WHO, and UN to increase participation across all ages, genders, abilities and socioeconomic groups. For the IOC, the focus is ensuring that every human being enjoys access to opportunities to participate in sport and physical activity; for the WHO, the goal is to reduce the global health burden of chronic diseases; and for the UN, the goal is to accomplish objectives around the sustainable development goals. Global warming poses a significant threat to safe engagement in sport and is impeding the accomplishment these objectives.

Sport has a role to play in climate action because the sport sector can reach a very large global audience and has the potential to effect behavioural change that could impact targets for the reduction of global warming whilst also increasing awareness of adaptive strategies to ensure safe sport in a hotter world. In addition, adopting climate incentives for large event sport organizers could serve as a catalyst for positive change in climate advocacy, education, and resilience in Caribbean SIDS and can reinforce synergies between international targets to increase sport participation and to reduce global warming. After all, increasing sport participation requires attending to the impact of climate change on sport to keep sport safe and enjoyable for all.

### **Impact of Climate Change on Sport**

Caribbean data confirm a steady increase in heat stress in the region.<sup>17</sup> It is generally well known that playing in hotter environments increases the risk of heat related illnesses (dehydration, heat cramps, heat exhaustion and heat stroke) and causes early fatigue and compromise of motor function. This risk is greater in humid climates like the Caribbean because high humidity reduces sweat evaporation and thus impedes thermal regulation. Focus groups with Caribbean health care professionals in 2014 described an increase in patients presenting with heat related illnesses because of global warming.<sup>18</sup> A multinational survey of health care professionals, including Caribbean participants, reported 47% already experiencing increases in heat related illnesses in their countries and 79% expecting increases in frequency and severity of heat related illnesses over the next 10 years.<sup>19</sup>

As global temperatures increase, outdoor playing fields become hard, dusty, and cracked increasing injury risk. Athletes falling on hard, dirt fields are more likely to sustain traumatic injuries as opposed to falling on adequately saturated fields.<sup>20</sup> When the Rugby America’s North regional men’s under 19 and senior women’s 15 rugby tournament was hosted at University of the West Indies campus in Jamaica two consecutive years (2022, 2023), field irrigation was a challenge for both tournaments. Data from the main

medical tent showed more injuries resulting in 24 hours or more out of play in 2022 (16) than in 2023 (12) when soil saturation was higher.

Dust clouds created from the wind and players running, jumping, and tackling on dry fields, combined with increasing ground-level Ozone which peaks in summer months, can cause respiratory complications manifesting as coughing, shortness of breath, asthma, bronchitis, and other lung conditions. Eighty percent of participants in a previously cited study reported an expected increase in respiratory problems due to poor air quality associated with global warming over the next ten years.<sup>21</sup> World athletics data reported increasing concern by athletes regarding climate change and air quality; 75% perceived a direct negative impact on health and performance.<sup>22</sup>

Sport is also at risk from extreme weather events precipitated by climate change. Continuous rain and thunderstorms cause cancellation of events due to flooding, field damage, and lightning strikes leading to economic losses and physical injuries. Cricket, an important sport for the Caribbean, is particularly sensitive to weather conditions. Rains cause an immediate halt in play, and persistent rain causes match cancellation. Disruptions in play affect athlete performance and match and tournament outcome. The 2024 T20 Cricket World Cup, held in the Caribbean and United States, was not spared. The India vs Pakistan match on June 9th was disrupted by thunderstorms in New York; June 11th left fans disappointed as the Sri Lanka vs Nepal match was abandoned due to heavy rain and flooding in Florida. In October 2023 the annual Fencing tournament in Guadeloupe was cancelled as hurricane Tammy hit the island the day before the event. Athletes who were making their way to the event were stranded in different places. In 2017 two category five hurricanes (Irma and Maria) caused significant damage to 27 cricket grounds across the Eastern Caribbean, some of which remain out of use today, and resulted in a reduction in play on affected islands.<sup>23</sup> Between 2019 to 2023 Jamaica saw eleven schoolboys and an assistant referee being injured from lightning strikes at soccer matches. Prior country data reported a total of 39 lightning strike injuries for a sixteen-year period (2005 to 2021).<sup>24</sup> In May 2024, eight students in the Bahamas who were walking outside, were hospitalized due to lightning strike on their campus<sup>25</sup> and three children in Puerto Rico were hospitalized due to lightning strikes whilst engaged in recreational activities at the beach.<sup>26</sup>

Issues like safety, transportation, energy costs, and compliance with government regulations result in most school sport in the Caribbean occurring during daytime hours, inclusive of the hottest times of the day. At the club level, competitions are organized during the day to avoid high energy costs associated with night lighting of facilities. Summer is probably one of the most hazardous periods for outdoor sport events, yet it is when several regional tournaments take place. The Central America and Caribbean Games occur be-

tween June and July, the Rugby Americas North regional competitions run between May and July, the Pan American games occur between August and November with qualification and intense training events occurring in the months leading up to the tournaments.

Sport itself is threatened by global warming and studies are already reporting reduction in engagement in physical activity as temperatures rise.<sup>27</sup> Actions to stem this reduction and can include installation of temperature warning systems and misting stations at sport facilities, innovative and environmentally friendly shading, redesign of uniform and gears to maximize heat dissipation, restoration of ecosystems through replanting of trees and shrubs wherever feasible, re-examination of training and tournament schedules, renewable energy sources for night lighting to accommodate activity during later, cooler, hours, and widescale education of athletes and the community on protective strategies.

### **Sport for Climate Action**

Sport depends on a clean and conducive environment; however, sport, mainly through the major events of large sport organizations, contributes to the destruction of the natural environment, too. Negative impacts of large sport events include increased pollution, increased waste, high water consumption, high levels of greenhouse gas, noise pollution, and reduction in carbon sinks.<sup>28</sup> An estimated 3.6 million tons of carbon emissions was associated with the 2016 Rio Olympics and 2.16 million tons with the 2018 Russia World Cup.<sup>29</sup>

Following the November 2016 Paris Climate Change Agreement, the UN proposed a Sport for Climate Action Framework; a call for sport organizations to step up and become climate leaders. The IOC, in 2019, joined this framework with objectives for increasing awareness about climate change across the global sports community, mitigating the negative impact of climate change on sport and contributing to achieving net-zero emissions by 2050. At the time of writing this paper only two organizations from independent islands in the Caribbean have signed on: the Olympic committees of Trinidad and Tobago and of St. Vincent and the Grenadines.<sup>30</sup> Two other global frameworks established to guide sport organizations towards net zero carbon emissions are the International Organization for Standardization event management sustainability system (ISO 20121), established after the 2012 Olympics and Paralympics; and Race to Zero, a campaign backed by the UN. While the global frameworks for sport are heavily focused on mitigation, resilience is a more pressing concern for Caribbean SIDS given the fractional volumes of emissions that they produce annually.

The WHO has recognized climate change as the biggest health concern of the 21st century. Whilst the WHO's work plan on climate change does not specifically include sport, it makes commitments to support countries in protecting health from climate change and strengthening national ca-



capacity to cope with the adverse impact on health care systems.<sup>31</sup> As sport, health and climate change are interconnected, the sport sector should be key target for WHO's climate action initiatives.

Though most sport organizations in the Caribbean have not signed on to climate action frameworks, Caribbean Community and Common Market (CARICOM) member states have signed the Paris Climate Agreement and developed climate action plans and policies. A Caribbean action plan for health and climate change was developed through support from the WHO and Pan American Health Organization with a vision to ensure that health systems in all SIDS are resilient to climate change by 2030.<sup>32</sup> Priority actions include capacity building, increasing budgetary allocation to climate change programs, increasing access to international funding, and increasing access to and sharing of data. A review of existing action plans indicates a need for significant strengthening of governance and communication strategies, and greater consideration of financial, socio-economic and energy vulnerabilities.<sup>33</sup> Although these policies and plans feature the health sector, they do not (but should) recognize the interrelationship with sport.

### **The Legitimacy of Incentivizing Sport for Climate Action in the Caribbean**

The sport sector in Caribbean SIDS has been slow in responding to international calls for climate action. I believe this is due to juggling priorities in the face of limited funding for fundamental activities. Caribbean sport is mostly government funded. The allocated budget is woefully inadequate and the relevant ministry (of which sport is a subset) typically receives between one to seven percent of the national budget. Most of this covers recurrent expenditures like salaries and administrative costs. Capital expenditure projects are mostly financed from development funds. Limited funding is available from regional and international organizations for specific grassroots sport projects and some capacity building and developmental activities. Some tournaments are funded by local private companies. Other hindrances to funding may be lack of knowledge on the sport-climate interaction, international focus on mitigation that is not compatible with the needs of Caribbean SIDS for adaptation and resilience, and the perception of being micro contributors to global warming.

### **The Ethics of Incentives**

Incentives have been used by both public and private sector as catalysts for action that align with policy objectives. Ruth Grant defines incentives as "the added element without which the desired action probably would not occur; they aim to direct people's behaviour and are an instrument of government in the most general sense."<sup>34</sup> Incentives have been controversial in the ethics literature with concerns related to voluntariness, exploitation and undue influence.

Such concerns are magnified when LMICs are the targeted beneficiaries and the 'powerful' may be taking advantage of the 'poor.' I believe incentives for something which is beneficial to all parties, including the wider global community is ethical. I recommend that regional and international organizations focused on sport, health and climate change create incentives for national and local sport organizations in Caribbean SIDS to develop and implement climate education and resilience strategies.

I put forward answers to the questions posed in Grant's paper to show that such an incentive would be a legitimate use of power. National and local sport organizations in Caribbean SIDS are microscopic contributors to climate change but bear equal moral responsibility to respond, in locally appropriate ways, to the shared global challenges associated with global warming. Furthermore, they are morally responsible for the safety of their athletes, which is under threat because of climate change. Putting the moral burden to respond to climate change only on powerful, well-funded sport organizations may prevent local organizations from taking immediate action to protect their athletes and erode a sense of shared responsibility.

Incentivizing climate action among national and local Caribbean SIDS-based sport organizations does not mask accountability of higher-emitting sport organizations, but rather reinforces that all sport organizations have responsibilities to their current athletes and the future of sport. Incentives created by international or regional organizations can aid these national and local sport organizations to better cope with global warming and ensure their survival. Incentives will guide national and local organizations' leadership to prioritizing a problem relevant to its stakeholders while maintaining voluntariness; the incentive will be optional. Incentives may come with some financial payment or remuneration for climate-related activities, when fulfilling incentives requires capital investment, for example, in technologies or facilities.

To offer a climate incentive would be a legitimate use of power and not a case of exploitation or undue influence, if climate actions are undertaken transparently and with appropriate monitoring or oversight. A climate incentive will aid the 'powerful' international and regional organizations in meeting policy objectives beneficial to all whilst enabling national and local sport organizations to adapt and become resilient to the threat that climate change poses to its sustainability and the health and wellbeing of its people, a win-win. The incentive can have a long-term impact on institutional culture resulting in a more climate-sensitive sport sector that benefits athletes and fans. While the usefulness and ethics of incentives can be questioned, the possibility of them making a difference to sport organizations in SIDS is already being observed. In October 2023 the Caribbean Association of Olympic Committees (CANOC), with the support of the IOC hosted a sustainability workshop fo-

cused on climate change. At the time of writing this paper CANOC had prepared a draft sustainability action plan for 2025-2030 for membership approval that specifies action items around climate mitigation, adaptation and leveraging sport to champion protection and restoration of nature. Incentives for climate action can be a catalyst for change that advances climate resilience and international organizations with resources that can provide it to the Caribbean region should do so.

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