

## Review Article

# Beyond Tokenism: The “Born Frees” and Climate Change in South Africa

**Bright Nkrumah** 

*Global Change Institute, University of the Witwatersrand, Johannesburg, South Africa*

Correspondence should be addressed to Bright Nkrumah; [bright.nkrumahup@gmail.com](mailto:bright.nkrumahup@gmail.com)

Received 23 September 2020; Revised 11 December 2020; Accepted 20 January 2021; Published 8 February 2021

Academic Editor: Jasmin Mantilla Contreras

Copyright © 2021 Bright Nkrumah. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Climate change and youth participation are emerging as important clarion calls today. Indeed, very few individuals will possibly counter a call for the involvement of young people in decisions and actions which (in)directly affect their lives. Presently, some of the greatest social problems faced by young South Africans are COVID-19, employment, and climate change. These challenges require the active participation of young people—locally known as the “born frees”—in the construction and operationalization of interventions, especially in light of the insufficient (sub)national response. That being said, policymakers often adopt top-down over bottom-up approaches, with the young generation often excluded or at best given a tokenistic role in climate decision-making processes. Therefore, this paper suggests some new ways of conceptualizing youth agency and brings to light how the born frees could efficiently take part or have a say in negotiating the path to climate adaptation, resilience, and mitigation. By drawing from the existing literature, the paper concludes that effective engagement with youth is essential in empowering them to key stakeholders or partners in adapting and/or mitigating climate change.

## 1. Introduction

In the traditional South African society, young people (un)consciously acquire knowledge and skills through some sort of apprenticeships with their elders who are more experienced in different spheres. They also routinely learn through their social interactions with their peers which enables them to develop social skills and competencies. These young citizens—which in the local slang are referred to as “born frees”—constitute more than a third of the country’s demography [1]. With a disproportionate percentage residing in townships and informal settlements, they are confronted with a series of societal ills, including gangsterism, poverty, inequality, substance (ab)use, domestic violence, HIV infection, and teenage pregnancy [2]. Related barriers in the educational sector include poor teaching practices, overcrowding, hunger, and unhygienic and poorly ventilated classrooms.

Born frees, or those born since the advent of democracy, may be grouped into three categories, children (<12), youth (<19), and young adults (<25). Even though this

classification may be significant for statistical consideration, the notion of young people is fluid as individuals within this category may differ in their world views, emotional response to a crisis, religious preferences, social orientation, education, and religious preferences. To this end, the attitude and involvement of young people in various causes and concerns such as climate issues, the focus of this paper, may also be underpinned by several factors including life expectations, social identity, class, educational background, values, and culture. Other determinant factors to public participation may be dominant political, socioeconomic, historical, or cultural factors prevailing in their communities, schools, work environments, or their homes.

In stark contrast to their (grand)parents, the born frees occupy a completely different sociopolitical context, with no official boundaries on whom they could interact with, which school to attend, where they live, where they can go, and what association to join. They are, therefore, well positioned to use their schools, work environments, and informal surroundings to engage in active public participation [3]. Yet, the last two decades have not been that promising as

they have been offered limited opportunities to participate or have “a say in the decisions that affect their lives,” especially in the area of climate change [4]. Climate change is by no means a new phenomenon. While its occurrence dates back to the stone ages, an increase in greenhouse gas emissions (GHGs) since the 1700s industrial revolution has triggered an increase in average global temperature by more than 1° Celsius [5]. From 1975 to now, two-thirds of the warming has occurred, at a rate of approximately 0.15-0.20°C per decade [6]. Towards this end, the enormous GHGs (methane and carbon dioxide) emissions have been considered as one of the biggest threats faced by young generations. Changes in the environment may result in considerable loss of biodiversity, extreme weather events, melting ice caps, and a general change in the plant’s hydrological systems. Since most African farmers and rural communities rely on rainfall for their livelihoods, animal and crop cultivations, it is projected that changes in rainfall patterns and amounts might spark violent conflict across the region as rural and urban populations scramble for scarce resources, particularly food and water [7].

While participation—as I will return to later—is a catchword, there is a raging contestation among scholars regarding its relevance. Against this backdrop, the paper will, on the one hand, explore arguments of the school of thought which appreciates its significance in mitigating climate change, and on the other hand, highlight some of the criticism advanced by opponents of the theory.

It is important to underscore that, by calling for youth participation, the paper argues that youth have untapped potential which needs recognition by adults and be encouraged to trigger and/or have their opinion considered in the deliberation, framing, and operationalization of environmental interventions. But how can youth participation in climate decisions be anything other than tokenistic? Does a genuine youth engagement hold any benefits for younger generations? These questions will be elaborated in the following, but the paper first provides a brief discussion of challenges faced by born frees in the attempt to engage in climate actions.

## 2. Normative Frameworks for the Participation of a Generation on the Move

Besides its health ramifications, the COVID-19 crisis has brought about dire socioeconomic effects across the country. Born frees have been subjected to some of the harsh conditions brought about by the pandemic, with many being left behind in education, inadequate social safety nets, poor working arrangements, and precarious job contracts. These woes are exacerbated by the mass extinction of hundreds of species by floods, extreme temperature, land degradation, wildfires, and decreased crop yields. In a more disturbing trend, approximately 91% of the country’s land is susceptible to desertification, 83% of river sources have been polluted, and only 6% of the land is under formal protection [5]. This leaves only 3% as truly fertile and 13.7% arable land, respectively. This development brings to bear how human value relates to the environment, as our actions have resulted

in ecological changes that threaten their survival and wellbeing.

In an era of demographic transitions, fast-paced rural-urban migration, and industrialization, several elements (increased automobile and resultant pollution) contribute to the erosion of natural areas, vanishing playing fields, and independent mobility of young people. To a greater extent, the 20<sup>th</sup>-century natural world and practice of youth going hunting, fishing, berry picking, hiking, finding the fishing bait under the rocks, and appreciating what is there seem to recede as natural areas are quickly being cemented and degraded. In commenting about denaturalizing schoolyards and steady decrease in youth’s free-range, an adolescent bemoans.

When I see another school I think, too bad, they’ve just got a cement yard and we’ve got trees and a river and ponds with fishes, frogs, tadpoles, snakes and a turtle. You would never say, “Let’s go outside and learn about a cement yard.” Now there is always something new to find out. I know how it *feels* to have ponds. I know what lives there. I’ve seen the way ponds change [8].

Young people are also often excluded from ecological and urban planning. This phenomenon begs a crude question: should the born frees be concerned about deforestation, GGEs, and climate change?

Tutu [9] provides a rather worrying response to the question when he bemoaned that “if we do not act definitively on climate change, and soon, the poor of South Africa and the world will be hit hard.” The Intergovernmental Panel on Climate Change [10] aptly suggests that, by the next three decades, young people will be cohabiting (with approximately 11 billion others) on a planet with sea levels higher by 5–32 cm and 0.8°C to 2.6°C warmer. Since its launch in 1992, the IPCC [11] has issued five comprehensive reports, with its recent *Special Report on Global Warming of 1.5°C* decrying the yearly increase in atmospheric concentrations of greenhouse gases (GGEs) owing to human activities.

All the above examples provide some indication that ecological fluctuation remains one of the key contemporary challenges threatening the livelihood of younger generations. Notably, given the future ecological threats which await young people, scholars have in recent times shifted their discourse from a siloed and fragmented gaze to focusing on intersectionalities and how all issues are entwined and colinked [12]. To a large extent, the lack of coordination may arguably be informed by the incoherence and separation of these concepts by policy actors and implementers at the global (global and local) levels, particularly in the early 1990s.

Yet, following their active participation in the 1992 United Nations Framework Convention on Climate Change (UNFCCC) negotiation, young people have been earmarked as one of the nine key actors towards the realization of Agenda 21 in their respective countries [13]. Cast within three subsections, the UNFCCC focuses on (i) science of ecological fluctuation, (ii) people’s vulnerability, and (iii) mitigating interventions. While the label “youth” is not specifically captured in the document, article 6 of the Convention calls on states to mitigate climate change by

including their citizens in environmental decision-making. The involvement of young people could be in the area of self-perceived ability to contain or avert potential threats to the ecology, or advocacy in the realm of biospheric values such as showing concern for the wellbeing of flora and fauna in one's local setting. Additionally, Article 6 of the Doha Work Programme on Article 6 of the UNFCCC (2012–2020) calls on states and bilateral institutions to provide the necessary resources to support youth empowerment and their climate-related activities. The notion of empowerment makes a significant contribution to the climate debate as a mere expression of discontent does not always result in policy reform.

In his thesis, Smit [5] observed that a disproportionate percentage of university students (15–25) perceived environmental sustainability as not merely tree-hugging, but a desirable end to be pursued by all members of the society. Yet, as bemoaned by some commentators, there is a feeling of resentment and frustration among the young population as their access to formal channels of decision-making is curtailed by the state. Faced with similar limitations, young people across the globe have resorted to unconventional, sometimes radical, means to address climate change and environmental degradation. As a means of calling for climate action, a myriad of climate youth movements (YouNGO) has used social media platforms to mount pressure on the state to proactively respond to climate threats. Also by mobilizing public opinion, some of these movements advocate for sustainable behavior choices at the government, private sector, and household levels [14]. In breaking away from the infra-politics of her contemporaries, the radical approach of a young activist, Greta Thunberg, appears to have triggered the necessary response. In light of the nonchalant of policymakers to adopt legislation calling for a reduction in GHGs, she launched the YouthStrike4-Climate movement in 2018 which has appealed to thousands of adolescents across the globe to skip classes on Friday to mount pressure on their leaders to mitigate climate change by pursuing sustainable development.

But what does it mean to have *sustainable* development? While different scholars ascribe different interpretations to the notion of sustainable development, it is important to add that one could extract three golden threads from the various definition conceptualizations: (i) social, (ii) economic, and (iii) ecology to withstand the demands of humankind and still satisfy the needs of future generation [15, 16]. The first two parts of sustainability (socioeconomic) bring to bear the question of equity, with a specific focus on participation, eco-justice (access to justice), intra- and intergenerational components, and allocation of obligation towards addressing climatic fluctuation. The notion of intergenerational equity, on the one hand, underscores the urgency for young citizens' involvement in the drafting and operationalization of climate action as they will bear the brunt of ecological hazard in the coming decades [17]. As a rule of thumb, age has become a clear fault line for emitting GHG: while young generations will be exposed to the full force of this climate change, only a few adults will experience some ramifications of these gases in time [18]. In the context of

South Africa, however, emphasis on intragenerational equity is particularly essential as the majority of the population who contribute less to GGEs are poor and might have little access to resources to adapt, contain, and cope with the impact of climatic variation. The notion of sustainable development may, for this reason, specifically be seen as a collection of sociopolitical, economic, and technical initiatives that are tailored towards (re)framing, carving, reforming, or (re)shaping the future of communities [19]. In other words, a development may be considered sustainable if it addresses the needs of the current generation without limiting the ability of the future generation to gain a similar benefit. But this objective cannot be attained as the future of the young generation is threatened by climate change and resulting extreme weather conditions which might reduce crop and animal production. The onset of these negative effects will eventually trickle down to food price hike, loss of jobs in the agricultural sector, and poverty. For this reason, there is an urgent need to enhance resilience and mitigation effort as a means of safeguarding people's access to food, employment, and sustenance.

It is against this backdrop that Goal 13 of the SDG (SDG-13) specifically obliges states to undertake "urgent action to combat climate change and its impacts," by strengthening adaptive capacity, awareness creation, integrating climate measures in national planning, meaningful mitigation actions, and improving participation mechanisms for the marginalized section of the population, such as women and adolescents. Agenda 21 underscores that the participation of young people in decision-making must be a high priority of states owing to their unique insight, ability to mobilize support, and intellectual contributions [20]. It specifically suggests the inclusion of adolescents in decision-making, with participation acting as a form of exercising their civil rights to equality, association, eco-justice, and not merely as weaker and powerless members of society. The instrument specifically calls for the engagement of contemporary "youth in environment and development decision-making and the implementation of programmes is critical to the long-term success of Agenda 21" [21]. To intensify their participation, the document conjures states to frame comprehensive programmes tailored towards strengthening the capacity of young people to engage meaningfully in sustainable development. It is worth noting that the procedure of offering youth a conducive platform to engage in policy formulation and operationalization also echoes Section 3(2) (a) of the 1996 South African Constitution which notes that everyone is entitled to the benefits, rights, and privileges of citizenship. Young people's freedom of expression is reaffirmed in Section 16(1) (b) of South Africa's 1996 Constitution which underscores young people's right to receive and share ideas on matters relating to public policy, scientific research, state programs, and activities. Yet, despite the catalogue of (inter) national legislation, genuine inclusion of young people in actual decision-making remains elusive, as their participation remains superficial or granted a one-time opportunity to contribute to discussions with often limited impact on policy [22]. For this reason, the remaining section of the paper will assess which approach could be used by born frees

to influence and/or fast track the adoption of a comprehensive climate change act to cut down on GHG emissions. But before that, a question lingers: why is it urgent for young South Africans to advocate for a climate response? To respond to this discursive question, the next section of this paper will briefly outline some of the fears and daily struggles of young people due to the effect of climate change.

### 3. Youth Concerns about Climate Change

For nearly three decades, rising temperatures and increasing sea levels have continued to impact the educational, social, and economic lives of young South Africans [23, 24]. Yet, the ramification of increasing levels of environmental toxins and their impact on youth remains underappreciated even though climate changes impact the cognitive, psychosocial, and biological development of young people. Shortage in quantity, changes in colour, tastes, and quality of water are some of the most evident manifestations and ramifications faced by contemporary youth in the era of climate change [25]. As some communities rely on river sources or draw from boreholes, their access to water may be compromised by floods which might contaminate these sources with toxins and infectious agents, and/or droughts which often leave them dry. Apart from cutting down on food production, the born frees continue to witness decreasing water supply, climate-induced migration, drought, and insufficient access to water for proper hygiene especially amid the ongoing COVID-19 crises [20]. These factors may trickle down to related sanitation and health issues, including food and waterborne diseases, as many adolescents live in communities without toilet facilities or at best rely on pit latrines that serve as incubators for mosquitoes and other bacterial aetiologies. Furthermore, social disruptions caused by climate change impact the cognitive and biological development of a disproportionate percentage of young people, especially as some watched their animals starve to death and their crops wither during the 2016 El Niño drought in Southern Africa [26]. As an illustration, a disproportionate percentage of young South Africans operate as smallholders or are employed in large-scale farming which is marked by extreme humidity and heat waves thereby making them susceptible to heat stress and dehydration during rising temperatures [27].

The impact of climate change, including water scarcity or flooding events, may equally impact the behavioural and psychological health of young people, especially those unable to adapt due to (pre)existing mental susceptibility [28]. As an illustration, youth may be unable to keep up with their adult counterparts in terms of behavioural thermoregulation even though the two share much the same physiological thermoregulatory mechanisms [29, 30]. In contrast to adults, younger generations are often more vulnerable to risks incurred from exertional heat injuries during physical activities, as they are more energetic and undertake different exercises that expose them to solar ultraviolet radiation. For example, a pooling data from Cape Town, Durban, and Johannesburg, calculated that, for every 1 °C rise, overall mortality escalates by 1% and by 2% in those aged above 65

years [31]. More so, unlike boys, extreme conditions may impact heavily on the life span and mental health conditions of young girls owing to their high susceptibility to obesity which primarily undermines thermoregulation [32].

In a more disturbing trend, many of South Africa's elementary schools are carved out of iron roofs, corrugated sheeting, or shipping containers which are known for their poor ventilation and insulation [33]. After leaving their (over)crowded and informal settlements, a disproportionate percentage of young adults receive basic instructions in classrooms with doors and windows mostly shut to forestall exposure to outdoor GGEs [34]. It was in this light that Chersich and others [31] observed that whereas "temperature-related mortality (from cold or hot spells) accounts for 3.4% of deaths in South Africa," temperatures in government-built asbestos sheeting classrooms "often exceed 30°C and heat-health related symptoms are commonplace." Rising temperatures in container classrooms have been known to result in thirst, and drowsiness among pupils [35].

Many schools are near toxic substances including industrial plants, mine dumps, and congested traffic. Hundreds of pupils in these institutions are exposed to hazardous gases and enormous heat waves which may have dire consequences on their health. As demonstrated by a recent finding, the risks of respiratory illness (including allergies and asthma) among adolescents may be increased by a range of factors including air pollution, pollen increments, dust, and high temperatures [36]. In light of the pervasive pupil-to-teacher and pupil-to-pupil violence in most schools, these (in)direct elements of climate change may exacerbate the already (physical and sexual) violence in community settings [37]. Reflective of this trend, the performance of students in stuffy and poor ventilated schools is bound to suffer as educators might become irritable and/or lethargic, while students may arguably be poorly hydrated and drowsy [38]. In sum, the concentration of CO<sub>2</sub> in the classrooms stimulates three key effects: (i) increase in youth's vulnerability to asthma attacks; (ii) contribution to drop in student attendance; and (iii) impacts on pupils teaching and learning abilities. The increasing temperature may have dire ramifications for the cognitive development of born frees, as many may experience depression, anxiety, and posttraumatic stress. This development entrenches poverty and inequality as those with poor marks (informed by disadvantaged environment) will be unable to compete fairly with their more advantaged peers for university placement or employment.

But considering that the wheels of institutional reform grind slowly, it is apparent that a transformative strategy needs to be youth informed as they have the required information and time to undertake advocacy. This end could be achieved through climate education which sharpens their skills to contribute to the adoption and operationalization of interventions towards environmental conservation. The participation of youth in this regard should not only be limited to seeking their opinion on how to adapt and set caps on emissions, but also empowering the target group to take charge of this process. By claiming and exercising their rights as legitimate citizens in a democratic space, youth are

empowered to bring about equitable societies through genuine participation. But first, what makes the participatory process genuine?

#### 4. Youth Participation: Genuine vs. Tokenistic

For nearly three decades, the field of environmental sustainability and social justice has been marked by rising contestation on the nexus between causes of climate change and citizen participation [39]. The notion of participation has become prevalent and virtually earned a reputation of an indispensable in contemporary (inter)national political order. Multiple actors such as planners, politicians, economists, policymakers, and donors often rely on this notion even though it may have a different connotation to different actors. To some, it may imply community involvement or people-centered engagement [40, 41]. To a greater extent, the concept which could be loosely translated as “engaging in,” “getting involved,” “conscientization,” or taking part in activity has evolved to become a buzzword, and often invoked as a ‘feel-good’ word for empowering vulnerable populations or as a rationale for undertaking development projects [42]. De Haan and Harenberg (1999) simply conceptualized participation as all individuals having equal say in matters affecting them, and in due recognition to their respective capabilities.

The significance of this concept could be traced to the rise of opponents of top-down approaches in the international arena, and subsequent affirmation of participatory processes as the new paradigm shift to overcome underdevelopment in the late 1980s [43]. This consciousness has subsequently permeated local communities and is still perceived as a key tenet of environmental governance and grassroots empowerment. Scholars within this field may be grouped into two camps: the conservatives and reformists. The former demonstrates extreme concern regarding the harmful environmental practices by both state and (small and large) corporate entities, but caution against the use of radical strategies to coerce industries and individuals to cut down on their GGEs [44, 45]. They specifically call for an integration of young people into climate debate by providing them the necessary training, information, and resources for effective engagement [46, 47]. Nonetheless, the view which has gained wide traction or currency among reformists is that just as GGEs are the deeds of humans, so must youth resort to social justice to cut down on GGEs [29, 48]. The argument of these advocates is underpinned by the assertion that since humans pursue different socioeconomic ventures without jeopardizing the development of others, they must be able to utilize the environment without causing harm to it, and perhaps restore its quality or make it better than they met it. To this end, they encourage young people to use collective action to coerce states towards renewable energy and corporate entities to cut down on their emissions. Despite their dissenting approaches, both camps share similar ecological frustration as well as the urgency for a change of attitudes on GGEs and youth participation in this shift.

This caveat notwithstanding, the (in)ability of youth to effectively engage in deliberation may often be dictated by

insufficient access to relevant information to contribute and transform their communities into environmentally sound localities. Youth are more likely to speak about the conditions in their localities if they have the freedom to move about, the liberty to freely criticize power holders, access to open dialogues, and the resources to constructively analyze and address the needs of the society [49, 50]. In instances where they had been exposed to better conditions elsewhere, yet are confined to a dictatorial regime with limited liberty to criticize dominant hegemony, then they are more likely to rebel or transform the status quo through unconventional approaches. It was in this light that O’Brien et al. [51] observed that, instead of complying with illegitimate legislation that seeks to foster the interests of powerful few, youth should exercise their moral judgment and withhold consent. Born frees who are uninformed or less informed may be minimally involved and overlooked, whereas the confident and knowledgeable are more likely to be involved in the process [52]. Even though the latter may not necessarily be reflective of the wishes of the entire youth population, they have the disposition to contribute to ecological deliberations when relevant information is easily accessible. Participation in this context could be unpacked from three standpoints: (i) *genuine*, youth are given a genuine role to engage in public deliberation; (ii) *exclusionary*, youth are completely removed from consultation process; and (iii) *tokenistic*, to what extent are young people used as a cliché to legitimize illegitimate policy.

**4.1. Genuine.** From infancy onwards, young people develop thoughtful views through their daily observations of society and daily events. With frequent adult-young policy interaction, the participation space is expanded as both learning from and influencing the thoughts of the other. This form of mentorship may take the shape of verbal instruction, often through physical gestures as a means of scaffolding a novice child to undertake a new activity. A participatory process could, therefore, be deduced as *genuine* or authentic when it seeks to develop the social, cognitive, and personal skills of adolescents as a means of triggering a social transformation or advance civic development. Young people are genuinely involved in decision-making when they are recognized as active citizens, while their views and opinions are integrated into/or shaping policy outcomes. To Tolppanen and Aksela [53], this form of participation seeks to (re)form and (re)construct the status quo or existing structures by recognizing born frees as young citizens and having the right to use the necessary platform to influence policy outcomes. It was against this backdrop that Ward and de Vreese [54] argued that, by perceiving youth as (young) citizens, the state acknowledges their right and entitlement to participation and respects their opinions in project design, specifically, given their innate and acquired capabilities.

Cox and others [55] argued that genuine participation sharpens the (negotiating, communication) skills and knowledge of young people on civic ideals (phases of decision-making) which (in)directly foster their potential to influence the content of climate policies and programmes.

The skills of youth may be developed through two steps: (i) learning and (ii) scaffolding. On the one hand, learning occurs by doing, emulation of conduct, observation, and other ontological approaches instead of epistemological means. Scaffolding, on the other hand, implies the provision of training, information, education, and guidance through the practical application of acquired skills. A blend of the steps may serve two purposes. First, they may act as a means of accomplishing a specific (sub)national agenda. Second, they may serve as transformative elements if the outcome of a deliberation reflects the broad views of the target community. This observation is mainly based on the fact that genuine participation creates a platform towards sharpening the skills of young people through information dissemination in local and simple language to enable (il)literate young people to understand the complexity of ecological problems and forge relevant solutions. Participation in this sphere often assumes a horizontal and vertical relationship, with the former representing grassroots deliberation among (in)experienced youths on the challenges triggered by climatic fluctuation and what local interventions (ecological reserves, landscaping, parks, and public transportation) are needed. On the vertical axis, groups of well-informed youth are selected to actively engage with more experienced adults (policymakers, teachers, politicians, and think tanks) on issues relating to adaptation and mitigation.

Inherent within genuine participation is the theme of “ownership.” By collaborating with youth, operationalization of environmental decisions may be less costly as this form of engagement stimulates a sense of ownership among the participants and builds confidentiality. Through active engagement, adolescents are empowered and challenged to invest *themselves* in the activities of the community [54]. By investing one’s concepts, identity, effort, and time into creating something, the individual feels attached and, thus, owns their creation in the same context as they own themselves. Put differently, the engagement of an individual with an object inextricably ties the *self* to the object and ultimately enhances a sentiment of ownership towards the latter. By their toil, youth commits their mental energy, physical effort, and time to the end product of their activities, which is managing carbon footprints. Scaff [56] observed that the concept of *mine* underscores the cognitive-affective state which defines the human condition in terms of one’s belongingness, objects, and subjects. In echoing Scaff’s argument, Wootton [57] moots that since individuals own themselves and their toils, they are inclined to feel that they possess what they (re)created or (re)invented. In other words, the more intensive labor one commits to a specific course, the more the person is willing to commit to ensuring its realization. They, thus, see themselves as “self-environment,” where the individual *self* and *environment* are inextricably linked and not abstractions. For this reason, youth who were given a fair opportunity to contribute to ecological policy form some sort of bond with their environment, find places to care for, and recruit others to join them in their effort [58]. As an illustration, just as a reviewer is more likely to accept a revised manuscript that incorporates his/her initial comments, so are youth more likely to join hands with their elders in operationalizing climate policy when they feel

such instruments reflect their initial concern or recommendations.

**4.2. Exclusionary.** Even though there is no specific model of an ideal participatory process, the success of such a procedure is measured by the *means* of reaching a specific outcome [59]. There is a potential for young people to enhance their capabilities when they engage in a social world where they interact irrespective of age and contrasting potentials. At the most basic level, young people display a tendency to participate in domestic affairs and for their views to be heard, a tendency vital for ecological civic engagement. Meaningful interactions of adolescents with one another or more experienced members of their locality enhance their engagement with their communities and trigger medium- to long-term outcomes for the individual personal development and community sustaining effort [60]. But, as evident in most communities, the partitioning of classrooms, dormitories, and recreational centers into age groups has segregated youth into sub-groups, thereby exacerbating the relegation of young people into private spaces and disengagement with their adults on key policy issues [61]. This disconnection impedes their prospects of taking on roles of greater competence in their localities, particularly as they feel disempowered to assume greater responsibilities. To some observers, this detachment is informed by the local notion that the maturation of young people into adulthood is organic and the attainment of total humanity only comes with time [62]. Against the backdrop of this social (mis)conception, born frees may literally and metaphorically be branded as too inexperienced to contribute to key environmental debates. The breakdown in the youth-adult relationship has played a little role for the latter to assist the former in attaining their objective of safeguarding the environment. The exclusion of this group from verbal dialogue and formal participation impact on their decision-making skills militates against their analytical thinking capabilities.

**4.3. Tokenism.** Young citizens in this environment experience series of limitations and are unable to influence debates affecting their environment or wellbeing. In line with the psychological and biological concepts of developmentalism, young people are still seen as not fully human (beings), but instead as human becomings. To welcome them to the table and have their voice heard is perceived as gifting, as young people are evolving into citizenship instead of being citizens themselves. Young people in this context are still perceived as passive recipients of entitlements, naïve and troublemakers, without much consideration to their capabilities as equal partners [63]. They are seen as bearers of obligations rather than entitlement, thus, incapable partners which have ultimately served as a pretext for adults to keep their grips on policymaking.

One essential trait of tokenistic participation is the decorative involvement of a few youths in an adult-dominated engagement. In instances where the doors are opened for young people to contribute, the born frees are often outnumbered by the sheer number of adults in the room which

militates against their (cap)ability to be useful assets in policy formulation. In most cases, they are invited to make a brief appearance—for want of better words—and submit inputs or petitions regarding any reservations they might have regarding existing policies or draft legislation [64]. In other cases, for their suggestions to be recognized or documented in a formal institutional register, such recommendations need to be coauthored by adults who ultimately dilute the original meanings and linguistic expression of young people as contained in the initial text. This form of tokenistic participation focuses on merely appreciating the presence of adolescents who will be bound to comply with the policy outcome [65]. Their unequal representation might generate policies that favor a section of the population to the detriment of others, as the final document will reflect the views and opinions of the more persuasive adults who may outnumber the young ones by almost a two-to-one ratio [66]. Such an approach does not give positions of influence to young people who remain at the periphery and are deprived of assuming greater roles and responsibilities as a means of enhancing their skills or having considerable say or influence over a set agenda.

In sum, as young people are bound to inherit the increasing GGEs, their participation in ecological governance or measures towards mitigating climate change cannot be downplayed. To Pierce et al. [67], three motivations inform the eagerness of youth to be involved in environmental discourse: naturalness (emotionally tied to the environment), moral reason (desire to ensure posterity inherits a better planet), and survival (ecology serving as the source of livelihood for themselves and their families). Yet, since they continue to face major hurdles in contributing to climate interventions, it may perhaps be useful for them to use courtrooms to remind policy actors of their inherent right to inhabit a healthy environment. Litigation, which may be rebranded as legal activism, is recommended as a corrective approach for three reasons. First, South Africa is known to have one of the most progressive constitutions in Africa which entrenches the fundamental right of young people to adequate nutrition and health which could be compromised by “ecological degradation” as proscribed by Section 24 of the Constitution. Second, the country’s judiciary, headed by the Constitutional Court, has on numerous occasions adopted an activist approach towards safeguarding the rights of vulnerable groups against the excesses of state power. Third, there is emerging international jurisprudence that born frees could draw from in filing an environmental application. It is for this reason that the next section briefly peruses some of the contemporary climate cases alleging degradation of the environment by young activists.

## 5. The Road Not yet Taken: Climate Activism

Activism could radically be conceptualized as grassroots activities aimed at awareness creation on a specific political or socioeconomic issue. It is extroverted and seeks to recreate and revive existing systems without inciting a regime change. To organizational theorists, one could group youth who engage in activism (activists) into two camps: those directly affected or concerned with the issue

at hand (insiders) or those not directly affected but demonstrate solidarity to the cause of the affected (outsiders). The latter may also be used to refer to youth who are equally affected by the adverse effect of climate change yet experience enormous hurdles in influencing or gaining attention during policy discussions. In such an instance, youth who have insufficient access to institutionalized mediums of policymaking may mobilize and engage in collective action as a means of triggering reform to existing social order or address a social practice that is perceived as contributing to GGEs. It is important to underscore that the use of a particular strategy by activists or mobilization of aggrieved citizens—in this case, youth—is often informed by their expected outcome [17]. It is for this reason that young people who appreciate the significant consequence of rising GGEs have forged different tools to challenge their adults to adopt proactive steps in overcoming the (root and immediate) causes of ecological variation. In this context, climate youth activists are primarily the harbingers of new openness, such as actors who have taken steps to mitigate climate change and with specific roles for youth or act in the interest of the latter. This approach seeks to enhance the creativity of youth, their perspective about the local and the global context, and their ability to frame simple solutions to address complex problems, critical consciousness on the environmental crisis, and in the long run their autonomy. It was for this reason that Rogoff [68] observed that “an individual participating in shared problem solving or in communication is already involved in a process beyond the individual level.” In addition to the many young activists who use their classrooms, playgrounds, canteens, and dormitories as platforms for climate awareness, there has been a proliferation of young activists who resort to different forms of activism, from novel approaches such as social media (Twitter, Facebook, and Instagram), street protests, and brochures dissemination to signing petitions. As an illustration, the African Youth Initiative on Climate Change, Climate Action Network, Sustain US, Sunrise Movement, and Zero Hour collectively aim to mobilize, empower, and inspire a generation of youth to take a positive stance on climate change. But, since this form of activism is nascent and not all young people are empowered to resort to radical tactics, some have approached courtrooms as an avenue of holding public and private actors to account.

Through legal activism, activists direct their efforts either towards more general environmental issues or specific effects of heat exposure. In terms of the former, even though South Africa has not recorded a specific climate legal precedent over the last two decades, a 1997 pollution jurisprudence might be instructive. In the *Cape/Gencor lawsuits (re So. Africa)*, five South Africans approached the British High Court with an application seeking reparation from Cape PLC for their asbestos-related disease as a result of the latter’s milling and mining activities in their home country [69]. The plaintiffs argued that as former employees and persons living near the company’s operations, they were exposed to high volumes of harmful dust without adequate protective gear. Eventually, the

company settled with the plaintiffs by providing adequate compensation for their injuries [70].

Yet, in terms of climate youth litigation, one could turn to four international cases which are quite striking. In *Juliana v. United States*, a group of 21 adolescents (between eight and nineteen) approached the Supreme Court alleging a breach of their right to health, property, liberty, and life owing to the government's unwillingness to adopt adequate measures to safeguard their right to safe climate [71]. Despite calls by the state requesting the court to dismiss the application on procedural grounds, the latter held that the plaintiffs will be allowed to argue their case as they have a basic entitlement to an ecological system capable of safeguarding and sustaining human existence.[13] Also, in *STC 4360-2018*, the Colombian Supreme Court reached a historic verdict when it upheld the claims of 25 youth and obliged the government to refrain from deforestation and take proactive measures towards climate fluctuation [2]. In adopting similar reasoning, courts in *Ashgar Leghari v Pakistan* [14] and *Urgenda Foundation v The Netherlands* [72] held the states responsible for violating the rights to life and dignity of current and future generations owing to their inactions to ongoing ecological threats. The courts jointly ordered the respective states to cut down on their annual hazardous emissions to safeguard the health and life of present and future generations. One striking aspect of these global cases is that, unlike *Cape/Gencor*, youth in these cases were not in pursuit of financial reward for damages, rather overarching climate action plan to be adopted and operationalized to forestall escalating levels of carbon dioxide and related GGEs into the atmosphere.

By drawing from their contemporaries, South African youth could file a similar claim alleging the government's inaction to climate change and their alienation from key decision processes in this respect. Their vast knowledge of GGEs through secondary experience (social media, television, books, and discussions on the radio) and coupled with their first-hand experience of water scarcity, drought, could be useful during court hearings. In drafting remedies, young people must call on the state to empower them (through climate education) and be genuinely included in relevant debates. Also, climate information should be simplified, yet grounded on the ideological, economic, and historical context of local communities to enable youth to relate and to have a better understanding of the issue at hand. Within this context, youth must seek considerable leverage in initiating (participatory planning, dialogue, and action process) or leading (charting the direction of) an environmental intervention. This may span from problem solving, gathering and assessing information, interpreting the results, leading formal processes, and forging recommendations, to communicating conclusions. In light of the constellations of ideas, interests, and power relations, resolutions emerging from such youth-adult dialogues are often overarching and addressing different needs.

## 6. Final Thoughts

This paper has attempted to navigate the trouble of assessing youth participation in the era of climate change. It began by arguing that since the youth will face the brunt of ecological

change, they need to be actively involved in relevant deliberations and interventions. This was followed by digging a little deeper into the normative basis of youth participation in climate decision(s). The paper discovered that while various (inter)national instruments entrench their right to be actively involved in cutting down on GGEs, they are often disentangled from such a process which has led to inaction or insufficient policies towards mitigating the impact of climate change. The paper then shifted its focus to examine some of the contemporary challenges faced by South Africa's youth in light of the onslaught of fluctuating climate. Whereas the ramifications of climate change transcend (sub) national boundaries, with the poor and affluent facing similar challenges, the former face the greatest threat as many lack the resources to afford food, water, and electricity due to their scarcity and price hikes. Poor educational performance, asthma, irritation, and school dropouts were identified as some of the repercussions of climate change which need urgent attention. By calling for the active involvement of born frees in climate decisions, the paper highlights the tokenistic participation of (dis)enfranchised young people and how it hinders their prospects in stimulating transformation or driving the agenda of climate change. It, thus, called for youth to undertake legal activism as a means of securing genuine participation, with a focus on shared-decision-making and consultation, marked by honesty and clarity in terms of the power of youth and their potential to engage in light of their interest and capabilities. The organizational structures and interpersonal engagement of youth in this sphere eventually enhance their competencies, societal and (inter)personal skills. The paper argues that youth are well positioned to play a key role in this respect as they have sufficient time to engage in advocacy (unlike their employed older adults) and require less training on environmental advocacy as they have exposure to contemporary data. In sum, the paper argues that climate actions should be codesigned with youth as they have acquired the necessary skills to genuinely participate in ecological debates as they will inherit the dire ramifications of climate change over the next decades.

## Data Availability

No data were used to support this study.

## Conflicts of Interest

The author declares that there are no conflicts of interest.

## Acknowledgments

The author is grateful for the continuous support and guidance of his colleagues at Global Change Institute. The conventional caveats apply.

## References

- [1] StatsSA (Statistics South Africa), "SA Population Reaches 58.8 Million," 2019.



- [2] P. A. A. Alvarado and D. Rivas-Ramírez, "A milestone in environmental and future generations' rights protection: recent legal developments before the Colombian Supreme court," *Journal of Environmental Law*, vol. 30, no. 3, pp. 519–526, 2018.
- [3] V. Malila, M. Oelofsen, A. Garman, and H. Wasserman, "Making meaning of citizenship: how 'born frees' use media in South Africa's democratic evolution," *Communicatio*, vol. 39, no. 4, pp. 415–431, 2013.
- [4] B. Ki-moon, "A million voices: the world we want-a sustainable future with dignity for all, un development group report," 2020, <https://www.worldwewant2015.org>.
- [5] S. Smit, *Exploring the Value that Youth Change Agents in Gauteng Attach to Environmental Sustainability for the Partial Fulfillment of the Degree of Master of Management*, Research report submitted to the University of the Witwatersrand, Johannesburg, South Africa, 2019.
- [6] NASA, "Earth observatory," 2020, <https://earthobservatory.nasa.gov/world-of-change/decadaltemp.php>.
- [7] S. Mouton, *Diarying Climate Change: Johannesburg Youth's Outlook on Their future for the Partial Fulfillment of the Degree of Master of Science*, Research report submitted to the University of the Witwatersrand, Johannesburg, South Africa, 2017.
- [8] R. Chaves, "Before and after asphalt: diversity as an ecological measure of quality in children's outdoor environments," in *The Ecological Context of Children's Play*, M. Bloch and T. Pelligrini, Eds., pp. 191–213, Ablex, Norwood, NJ, 1989.
- [9] Santiago-Ávila, "Use earth hour to act on the greatest threat to mankind," 2010, <https://wwf.panda.org/?191824/Use-Earth-Hour-to-act-on-the-greatest-threat-to-mankind>.
- [10] IPCC, "Technical summary," in *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, T. F. Stocker, D. Qin, G. K. Plattner et al., Eds., pp. 33–115, Cambridge University Press, Cambridge, UK, 2013.
- [11] IPCC, Global Warming of 1.5°C. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_High\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf), 2019.
- [12] C. Schreiner, E. K. Henriksen, and P. J. Kirkeby Hansen, "Climate education: empowering today's youth to meet tomorrow's challenges," *Studies in Science Education*, vol. 41, no. 1, pp. 3–49, 2005.
- [13] D. Bodansky, "The United Nations framework convention on climate change: a commentary," *Yale Journal of International Law*, vol. 18, no. 451, pp. 451–558, 1993.
- [14] 2015 Ashgar Leghari v Federation of Pakistan, Judgment of 4.
- [15] G. I. Broman and K.-H. Robèrt, "A framework for strategic sustainable development," *Journal of Cleaner Production*, vol. 140, no. 1, pp. 17–31, 2017.
- [16] E. Holden, K. Linnerud, and D. Banister, "The imperatives of sustainable development," *Sustainable Development*, vol. 25, no. 3, pp. 213–226, 2017.
- [17] M. E. Kuiper, "Climate change and intergenerational equity: revisiting the uniform taxation principle on carbon energy inputs," *Energy Policy*, vol. 121, pp. 292–299, 2018.
- [18] A. Treves, K. A. Artelle, C. T. Darimont et al., "equity can help to prevent climate change and extinction," *Nature Ecology & Evolution*, vol. 2, no. 2, pp. 204–207.
- [19] T. Hák, S. Janoušková, and B. Moldan, "Sustainable Development Goals: a need for relevant indicators," *Ecological Indicators*, vol. 60, pp. 565–573, 2016.
- [20] M.-A. Baudoin, C. Vogel, K. Nortje, and M. Naik, "Living with drought in South Africa: lessons learnt from the recent El Niño drought period," *International Journal of Disaster Risk Reduction*, vol. 23, pp. 128–137, 2017.
- [21] UN, Transforming our World: the 2030 Agenda for Sustainable Development GA Res 70A/1 UNGARO, 70th Sess UN Doc E/15/16301 Preamble, 2015.
- [22] N. Correia, C. Camilo, C. Aguiar, and F. Amaro, "Children's right to participate in early childhood education settings: a systematic review," *Children and Youth Services Review*, vol. 100, pp. 76–88, 2019.
- [23] M. New, "Climate change and water resources in the southwestern Cape, South Africa," *South African Journal of Science*, vol. 98, no. 7-8, pp. 369–376, 2002.
- [24] N. Rätzl, J. Cock, and D. Uzzell, "Beyond the nature-labour divide: trade union responses to climate change in South Africa," *Globalizations*, vol. 15, no. 4, pp. 504–519, 2018.
- [25] L. F. Mugwedi, J. Ray-Mukherjee, K. E. Roy et al., "planning for climate change mitigation and adaptation in the city of Durban, South Africa," *International Journal of Biodiversity Science, Ecosystem Services & Management*, vol. 14, no. 1, pp. 132–144.
- [26] Y. T. Bahta, A. Jordaan, and F. Muyambo, "Communal farmers' perception of drought in South Africa: policy implication for drought risk reduction," *International Journal of Disaster Risk Reduction*, vol. 20, pp. 39–50, 2016.
- [27] L. Metelerkamp, S. Drimie, and R. Biggs, "We're ready, the system's not - youth perspectives on agricultural careers in South Africa," *Agrekon*, vol. 58, no. 2, pp. 154–179, 2019.
- [28] C. M. Botai, J. O. Botai, J. P. De Wit, and K. P. Ncongwane, "Drought characteristics over the western Cape province, South Africa," *Water*, vol. 9, no. 11, pp. 1–16, 2017.
- [29] M. H. M. Beld and E. G. Van den Heuvel, "Impact of classroom climate on students' perception of social exclusion in secondary special education," *Children and Youth Services Review*, vol. 103, pp. 127–134.
- [30] R. Gauer and B. K. Meyers, "Heat-related illnesses," *American Family Physician*, vol. 99, no. 8, pp. 482–489, 2019.
- [31] M. F. Stevenson, C. Y. Wright, F. Venter, and H. Rees, "Impacts of climate change on health and wellbeing in South Africa," *International Journal of Environmental Research and Public Health*, vol. 15, no. 1884, pp. 1–14, 2018.
- [32] C. Rylander, J. Øyvind-Odland, and T. M. Sandanger, "Climate change and the potential effects on maternal and pregnancy outcomes: an assessment of the most vulnerable—the mother, fetus, and newborn child," *Global Health Action*, vol. 6, no. 1, pp. 1–9, 2013.
- [33] SAIIA, *Youth Climate Change Meeting with Minister Barbara Creecy (Friday 28 February 2019) Aviator Hotel, Kempton Park, South Africa*, 2019.
- [34] D. Matsepe, M. Maluleke, and M. Maluleke, "Re-imagining teacher's experience with overcrowded classrooms in the public secondary schools in South Africa," *Journal Of Gender, Information and Development in Africa*, vol. SI, no. 2, pp. 81–93, 2019.
- [35] J. Dladla and T. A. Ogina, "Teachers' perceptions of learners who are street children: a South African case study," *South African Journal of Education*, vol. 38, no. 1, pp. S1–S8, 2018.
- [36] T. Jun and I. Min, "Air pollution, respiratory illness, and behavioral adaptation: evidence from South Korea," *PLoS One*, vol. 14, no. 8, pp. 1–14, 2019.
- [37] N. Pouzols and N. Muthukrishna, "Teacher-instigated in-school interpersonal violence: types and prevalence in South African public schools," *Journal of Psychology in Africa*, vol. 28, no. 5, pp. 371–374, 2018.

- [38] N. Jahan, "Air pollution around schools and poorer student health and academic performance: a case of dhaka, Bangladesh," *ABC Journal of Advanced Research*, vol. 9, no. 1, pp. 9–18, 2020.
- [39] S. M. Borrás Jr and J. C. Franco, "The challenge of locating land-based climate change mitigation and adaptation politics within a social justice perspective: towards an idea of agrarian climate justice," *Third World Quarterly*, vol. 39, no. 7, pp. 1308–1325, 2018.
- [40] R. J. Dean, "Beyond radicalism and resignation: the competing logics for public participation in policy decisions," *Policy & Politics*, vol. 45, no. 2, pp. 213–230, 2017.
- [41] M. Kahila-Tani, M. Kytta, and S. Geertman, "Does mapping improve public participation? Exploring the pros and cons of using public participation GIS in urban planning practices," *Landscape and Urban Planning*, vol. 186, pp. 45–55, 2019.
- [42] A. Gramsci, *Selections from the Prison Notebooks*, Lawrence & Wishart, London, UK, 1971.
- [43] T. Weblert and S. Tuler, "Four decades of public participation in risk decision making," *Risk Analysis*, pp. 1–16, 2018.
- [44] M. C. Monroe, R. R. Plate, A. Oxarart, and A. Bowers, "Identifying effective climate change education strategies: a systematic review of the research," *Environmental Education Research*, vol. 25, no. 6, pp. 791–812, 2019.
- [45] S. R. Stapleton, "A case for climate justice education: American youth connecting to intragenerational climate injustice in Bangladesh," *Environmental Education Research*, vol. 25, no. 5, pp. 732–750, 2019.
- [46] M. E. Krasny and B. DuBois, "Climate adaptation education: embracing reality or abandoning environmental values," *Environmental Education Research*, vol. 25, no. 6, pp. 883–894, 2019.
- [47] D. Levrouw, R. Roose, P. van der Helm, E. Strijbosch, and S. Vandeveld, "Developing a positive living group climate in residential youth care: a single case study," *Child & Family Social Work*, vol. 23, no. 4, pp. 709–716, 2018.
- [48] K. C. Busch, N. Ardoin, and D. Gruehn, "Exploring a theoretical model of climate change action for youth," *International Journal of Science Education*, vol. 41, no. 17, pp. 2389–2409, 2019.
- [49] A. V. Sanson and J. Van Hoorn, "Responding to the impacts of the climate crisis on children and youth," *Child Development Perspectives*, vol. 13, no. 4, pp. 201–207, 2019.
- [50] S. L. Wong and J. L. Raphael, "Are you listening to our children: empowering youth advocates," *Pediatric Research*, vol. 87, no. 3, pp. 432–433, 2020.
- [51] K. O'Brien, E. Selboe, and B. M. Hayward, "Exploring youth activism on climate change," *Ecology and Society*, vol. 23, no. 3, pp. 1–14, 2018.
- [52] O. Feeney, P. Borry, H. Felzmann et al., "Genuine participation in participant-centred research initiatives: the rhetoric and the potential reality," *Journal of Community Genetics*, vol. 9, no. 2, pp. 133–142, 2018.
- [53] S. Tolppanen and M. Aksela, "Identifying and addressing students' questions on climate change," *The Journal of Environmental Education*, vol. 49, no. 5, pp. 375–389, 2018.
- [54] J. Ward and C. De Vreese, "Political consumerism, young citizens and the Internet," *Media, Culture & Society*, vol. 33, no. 3, pp. 399–413, 2011.
- [55] R. S. Cox, T. T. Hill, T. Plush, C. Heykoop, and C. Tremblay, "More than a checkbox: engaging youth in disaster risk reduction and resilience in Canada," *Natural Hazards*, vol. 98, no. 1, pp. 213–227, 2019.
- [56] L. A. Burke, "Two concepts of political participation," *Western Political Quarterly*, vol. 28, no. 3, pp. 447–462, 1975.
- [57] D. Wootton, "John Locke and Richard Ashcraft's revolutionary politics," *Political Studies*, vol. 40, no. 1, pp. 79–98, 1992.
- [58] M. Henn, M. Weinstein, and D. Wring, "A generation apart? Youth and political participation in Britain," *The British Journal of Politics and International Relations*, vol. 4, no. 2, pp. 167–192, 2002.
- [59] D. Stolle and M. Hooghe, "Shifting inequalities," *European Societies*, vol. 13, no. 1, pp. 119–142, 2011.
- [60] J. Boeve-de Pauw and P. Van Petegem, "A cross-national perspective on youth environmental attitudes," *The Environmentalist*, vol. 30, no. 2, pp. 133–144, 2010.
- [61] M. Riemer, J. Lynes, and G. Hickman, "A model for developing and assessing youth-based environmental engagement programmes," *Environmental Education Research*, vol. 20, no. 4, pp. 552–574, 2014a.
- [62] A. France and P. Wiles, "Dangerous futures: social exclusion and youth work in late modernity," *Social Policy & Administration*, vol. 31, no. 5, pp. 59–78, 1997.
- [63] T. Shildrick and R. MacDonald, "Understanding youth exclusion: critical moments, social networks and social capital," *Youth & Policy*, vol. 99, pp. 43–54, 2008.
- [64] M. Riemer, J. Lynes, and G. Hickman, "A model for developing and assessing youth-based environmental engagement programmes," *Environmental Education Research*, vol. 20, no. 4, pp. 552–574, 2014b.
- [65] C. Morrison and A. Dearden, "Beyond tokenistic participation: using representational artefacts to enable meaningful public participation in health service design," *Health Policy*, vol. 112, no. 3, pp. 179–186, 2013.
- [66] S. Radcliffe and A. Webb, "Mapuche youth between exclusion and the future: protest, civic society and participation in Chile," *Children's Geographies*, vol. 14, no. 1, pp. 1–19, 2016.
- [67] J. L. Pierce, T. Kostova, and K. T. Dirks, "The state of psychological ownership: integrating and extending a century of research," *Review of General Psychology*, vol. 7, no. 1, pp. 84–107, 2003.
- [68] B. Rogoff, *Apprenticeship in Thinking: Cognitive Development in Sociocultural Activity*, Oxford University Press, NY, New York, 1990.
- [69] J. G. Frynas, "Social and environmental litigation against transnational firms in Africa," *The Journal of Modern African Studies*, vol. 42, no. 3, pp. 363–388, 2004.
- [70] J. Cross, "Beating the odds: the quest for justice by South African asbestos mining communities1," *Review of African Political Economy*, vol. 32, no. 103, pp. 63–77, 2005.
- [71] M. Powers, "Juliana v United States: the next frontier in US climate mitigation?" *Review of European, Comparative & International Environmental Law*, vol. 27, no. 2, pp. 199–204, 2018.
- [72] 2015 Urgenda Foundation v The Netherlands ILDC 2456 (NL).