

Climate justice is central to addressing the climate emergency's psychological consequences in the Global South: A narrative review

Climate change is widespread and rapidly intensifying. According to the United Nations' Intergovernmental Policy Platform on Climate Change's (IPCC) recent Sixth Assessment Report (2021), the world has experienced around 1.1°C average warming since the pre-industrial age. That our planet is increasingly hotter is undoubtedly attributable to human activities and there is high confidence that this warming is already having adverse planetary consequences (IPCC, 2021). The United Nations Secretary-General António Guterres (2021) has signalled a “code red for humanity”, calling for rapid cuts in greenhouse gas emissions to avert catastrophic warming. Scientists warn that it is no longer a question about whether anthropogenic climate change exists. Instead, the question has become how devastating the impacts will be if the world continues along its current trajectory (Mann, 2021). The exposures to extreme events across a lifespan are “unprecedented at all warming levels” for anyone alive today (Thiery et al. 2021, p. 3).

Severe climate change impacts, such as droughts, storm surges and wildfires, are already experienced today. Yet, Global South countries have advocated that the world should take steps now to ensure that human-induced climate change contributes to no more than a 1.5°C increase in global temperatures. Countries in the South have argued that going beyond this target of 1.5°C would mean the difference between survival and major life-threatening consequences (Barnwell & Heleta, 2021). According to the United Nations' IPCC (2021), on current trajectories, 1.5°C is likely to be reached

or exceeded within the next 20 years and the earth is also expected to surpass 2°C warming this century, if emissions are not radically cut.

Global South countries are least responsible for climate change, yet these nations are at the greatest risk of experiencing the climate crisis' devastating consequences (IPCC, 2021; Oswald, Owen, & Steinberger, 2020; Thomas, et al., 2019). Today, 100 fossil fuel companies are responsible for approximately 71% of global industrial emissions and years of multinational companies' extractivism have left many countries in the South more vulnerable to climate change (Griffin & Heede, 2017). Billions of people in the Global South face deadly heat waves, wildfires, water scarcity, crop failures and storm surges, among other effects, which have significant psychological consequences mediated by global socio-economic and political inequities.

Climate change is a global justice issue. We argue that a climate justice perspective is crucial to understanding specific experiences of climate-related psychological distress in the Global South. This paper thus examines the increasingly significant impact of the climate macro-system on human functioning, providing a contextual framework for a more holistic and integrated understanding of human climate-related behaviour and responses (Bronfenbrenner, 1981).

A climate justice lens is applied to this narrative review to offer an overview of the main psychological consequences of global climate injustices. The review foregrounds examples from the Global South to illustrate the experiences of global inequities that should be centred within psychological perspectives — especially as these have tended to focus on Western individualistic models, which minimise contextual factors, thereby

implicitly colluding with oppressive structures (Adams, 2021; Manganyi, 1977; Nicholas, 1993).

Definition of Climate Justice

The concept of “climate justice” recognises that historical racial discrimination, class disenfranchisement, political misrecognition and other social injustices make surviving climate change and thriving within it more challenging (Jafry, Helwig and Mikulewicz, 2019; Pearson, Tsai and Clayton, 2021). Thus, a climate justice lens helps illuminate experientially different economic, social, health and other climate change impacts (Levy and Patz, 2015). Climate justice also recognises that some groups’ privilege come at the cost of insecurity for others (Rice, Long and Levenda, 2021). This article uses the term ‘climate justice’ for consistency, but the terms “climate colonialism” and “climate apartheid” could also have been applied and all three are relatively interchangeable (Tabassum, 2021; Rice et al., 2021). Still, climate justice draws attention to what is equitable and just, while climate colonialism foregrounds colonial histories and the reproduction of coloniality of power, being and knowledge in today’s experiences of climate injustices (Moulton and Machado, 2019).

Psychology and Climate Injustice

Unequal Exposures and Psychological Consequences

Despite contributing relatively little to the global crisis, the Global South is already highly exposed to climate change risks (Palinkas and Wong, 2021) with some regions experiencing warming at levels more than twice the global average and others - such as multiple island nations and coastal regions – face imminent risks of being submerged under expected sea level rises (Scholes and Engelbrecht, 2021; IPCC, 2021). A

modelling study conducted by Thiery et al (2021) shows that generations living in low-income countries will experience the greatest increases in adverse climate change exposures, such as droughts, heat waves and crop failures, compared to their counterparts in wealthier nations.

Additionally, climate change exposes children born today and future generations in the South to significantly more adverse events than previous generations (Thiery et al., 2021). For example, children born in 2020 in sub-Saharan Africa will be exposed to 5.9 times more extreme events than those born in 1960 (Luthen, Ryan and Wakefield, 2021). Although modelling studies such as these are in their infancy, it may be fair to deduce that Global South communities are at increased risk of psychological and mental health consequences due to disproportionate increases in traumatic exposures. Climate change intensifies the severity and frequency of extreme events, and changes in climatic systems stand to introduce new extremes (IPCC, 2021).

Climate change impacts are not always sudden catastrophic events, such as flooding or wildfires, they can also present as slow and insidious emergencies, such as droughts, that place multiple stressors on all areas of everyday life, slowly eroding and unsettling normality, while introducing or exacerbating the sense of insecurity (Barnwell, Stroud and Watson, 2021; Barnwell & Heleta, 2021; White, 2014). Climate change impacts threaten communities' survival and ways of life by exacerbating or introducing new harms that can lead to multiple insecurities in safety, livelihood, nutrition, health, psychological wellbeing, social cohesion, educational attainment and other critical functions (Clayton, 2021; Manning & Clayton, 2018). Communities can experience

these extreme events and their consequences as significant psychological stressors and, potentially, traumatic events (Institute for Trauma and Stress Studies, 2021).

This narrative review substantiates conclusions about the psychological consequences of climate change in the Global South through studies conducted in Sub-Saharan Africa and international studies (where local studies are lacking). As authors, we feel relatively comfortable doing so as the general pathways of psychological distress post-disaster are well known. People can experience climate change-related stressors directly (e.g., injury, loss of property, financial insecurity) vicariously (e.g., seeing someone's life being threatened or witnessing mass casualties or destruction of property) or through anticipation (e.g., seeing the world changing and being aware of the direct threats to self or others) (Institute for Trauma and Stress Studies, 2021).

There are common reactions to direct impacts associated with extreme events, such as droughts, flooding, and storm surges, that may be immediately felt, such as post-traumatic stress, anxiety, or depressive reactions. The extreme severity of the events and circumstances at the time can overwhelm even the best-resourced person's coping ability (Clayton, 2020). Those experiencing the loss of a loved one or destruction of property will grieve the loss in different ways, possibly presenting with sadness, hopelessness, anxiety and despair (Pihkala, 2020; Ženko and Menga, 2019). The threat to self, others or property can exacerbate existing mental health challenges and possibly lead to clinical levels of distress (Clayton, 2020). Paranoia, somatisation, suicide (Clayton, 2020; Papanikolaou, et al., 2011) and increased hospital admissions for mental health-related reasons have also been reported (Cianconi et al., 2020). Witnessing life-threatening situations or the destruction of property may also result in

trauma reactions, experiences of loss or other forms of mental anguish (Institute for Trauma and Stress Studies, 2021). Moreover, Mushavi et al (2020) report stigma, humiliation and social alienation owing to the social dimensions of water insecurity, in particular.

Studies of similar impacts on children in the Global South are only beginning. Yet, available evidence shows that when faced with climate-related trauma, children may turn their feelings inwards and express depressiveness, fearfulness and hopelessness. Children may also turn their feelings outwards in the form of anger, alcohol use and self-harm (Hickman et al., 2021).

More broadly, distress associated with climate change has often been termed *climate anxiety*. Climate anxiety is understood as psychological distress related to worry, despair or a sense of hopelessness about the changing world and fear for the future (Pihkala, 2020). Although there is increasing evidence of climate distress in the Global South, studies on climate anxiety in the South are limited, lack robust methodologies and vary considerably. For instance, one study reported that only about one in ten participants from Gabon, Rwanda, Morocco, Algeria and Congo reported climate anxiety, but recognised sampling limitations (Heeren, Daouda and Contreras, 2021). Meanwhile, in another more robust study, Hickman et al. (2021) found up to 60% of Nigerian participants reported climate anxiety. Methodological differences exist: for instance, the range of emotions defined under 'climate anxiety' by Hickman, et al. (2021) is notably broader than that described by Heeren et al. (2021).

Only recently has psychology begun to pay more attention to the socio-political context of climate distress (Adams, 2020). The psychological impacts of climate change

places a profound burden on individuals and families, resulting in social upheavals that can reconstitute daily life. For instance, 20.7% of African research participants from Gabon, Rwanda, Morocco, Algeria and the Congo experienced daily impediments due to climate distress (Heeren et al., 2021). Barnwell et al (2021) warn, however, against solely framing distress in clinical terms and argue for socio-political action to address societal and justice issues – as those with the least resources are the most vulnerable - and face considerable constraints to adapt.

Unjust Socio-historical Barriers to Adaptation

To fully comprehend climate change's psychological consequences in the Global South, particularly those with the least access to resources, socio-historical barriers to adaptation must be recognised. Climate-related distress is not only a reaction to climate change but is mediated by the ability to adapt to the various ensuing crises, which is - to a large extent - contingent on access to adequate resources (Barnwell, 2021; Williams, 2021). A current corollary for this principle is the COVID-19 pandemic, with research indicating that the poorest countries are the most adversely affected (World Bank, 2021). Within many countries, the ongoing social determinants of health inequalities means COVID-19 has effectively been aggravated, with adverse impacts (including mortality rates) more severely experienced by those from disadvantaged backgrounds (Mishra et al., 2021). From a political psychology perspective, an individual, community or society's ability to adapt to the climate (or pandemic) emergency is inseparable from the global socio-political arrangements that historically structure daily life - and that often privileges some lives over others.

For example, countries that have accumulated wealth through colonial extractive policies have significantly more means at their disposal to invest in adaptation than countries that were subjected to these colonial administrations (Williams, 2021). The historical privileging of Euro-American hegemony — although waning — and other powers, such as China and Russia, across the world continues to undermine postcolonial development (see Mignolo, 2021). Western interventionism, sanctions, unbridled global extractivism are often at the expense of host communities, even though it is framed as options to develop nations recovering from the colonial legacies (see Menton & Le Billon, 2021; Mignolo, 2021). The distribution of wealth reflects this accumulation through extraction where countries with colonial legacies are financially poorer than those who have historically benefited (Holton, 2020). However, even in the richer nations, significant wealth inequalities can also mean variable adaptation response possibilities across their populations – for example, the lack of health and social welfare resources for many in the United States of America (Williams, 2021). As our planet warms, countries will direct resources towards specific measures to “secure” parts of society (i.e., what has been termed the “climate privileged”), while mainly creating insecurity for most of the world’s population (Rice et al., 2021). For instance, climate change produces forced displacement and climate refugees who are met with wealthier countries’ increasing securitisation at their borders (UNHCR, 2021). Those who already experience social alienation, stigmatisation and brutality owing to societal inequities stand the risk of being left behind (Sultana, 2021). Racism, sexual and gender-based violence, patriarchy, ableism, xenophobia and other isms and schisms put some people at more risk than others (Sultana, 2021; Williams, 2021). Additionally,

people with pre-existing conditions, such as those living with HIV, diabetes, and physical and mental disabilities, are at increased risk, owing to vast income disparities and weak state support (Chersich et al., 2018).

For instance, Black women living in a mine-affected community have higher levels of unemployment - despite being more educated than men - and are at greater risk of HIV, owing to how racism and patriarchy have historically structured the mining industry (Benya, 2015; Steele et al., 2019). Furthermore, fence line communities — living adjacent to industries emitting toxins, historically Black, Indigenous or People of Colour — are at increased risk (Johnston & Cushing, 2020). Exposed to environmentally unhealthy living conditions, residents may also experience participatory, procedural, and corrective injustices (Barnwell et al. 2020; Boyles et al., 2017). These social justice issues — combined with fears over the competition with industry over scarce water resources — contribute to complex and intersectional experiences of climate-related distress (Barnwell et al., 2020, Barnwell, 2021).

Furthermore, land and environmental defenders resisting extractive projects may significantly prevent new emissions but are often violently targeted. Global Witness (2021) reported that 2020 set the record for the highest number of environmental defenders killed in recent years. In general, human rights violations — that have insurmountable psychological consequences, such as complex trauma — are expected to increase worldwide due to securitisation around the climate emergency (Adger et al., 2014; Barnwell and Heleta, 2021). Thus, psychological distress associated with climate emergency is inseparable from these broader experiences of exclusion and human rights violations within society, rooted in unjust socio-political arrangements.

In the Global South, gross socio-economic inequality, poverty, weakened institutions, a lack of public funding and material means, not only challenges adaptation but threatens to amplify conflicts and historical wounds, potentially disrupting and uprooting communities (Barnwell and Heleta, 2021; Sakaguchi, Varughese and Auld, 2017). Today, the climate and ecological crises are creating unprecedented humanitarian needs stemming from climate-exacerbated conflicts, food insecurity and mass displacement (UNHCR, 2020).

The various psychological adversities that are related to climate change exposures, exacerbated by historical social injustices, accumulate over a lifespan, possibly increasing psychological impacts over time - akin to Straker's (2013) notion of 'continuous traumatic stress disorder', initially described during civil conflict in apartheid South Africa. In much of the Global South, these accumulated traumas and stressors get shifted onto fragile or non-existent social and healthcare systems that, even currently, do not meet most people's basic needs (Barnwell, 2021). The treatment gap for people requiring mental health care in low and middle-income countries is large (World Health Organisation, 2008). Even relatively well-resourced countries in Africa, such as South Africa, face a 92% gap in mental healthcare services with resources overwhelmingly concentrated in major urban centres (Docrat et al., 2019). Without basic services and access to free, accessible universal health care that readily caters for the type of medical and psychological care required, it is unthinkable that nations will be able to absorb the demand resulting from increases in climate exposures.

It is not only socio-historical barriers to adaptation that increase the risk of adverse exposures to psychological adversities, however, but also how governments

and other institutions respond to these injustices, will undoubtedly further influence climate-related psychological distress.

Institutional Betrayal

Society's response to climate injustices will have a tremendous bearing on psychological outcomes. In South Africa, Gabriel Klaasen from the youth climate justice movement African Climate Alliance has suggested that climate inaction is a form of "mental injustice" (Centre for Environmental Rights, 2021). Among health professionals, the concept of institutional betrayal is used to refer to the perpetration of wrongdoings, or the failures to prevent or respond to transgressions, by institutions who have been ostensibly tasked to represent or 'protect' citizens (Smith and Freyd, 2013). Psychiatrist Lise van Susteren (2015) was probably the first to apply institutional betrayal in her forensic report for the Juliana vs. the United States of America climate-related lawsuit filed by 25 youth plaintiffs. This case is still in progress but has sparked several other similar climate litigations around the world. For instance, in a climate-related lawsuit at South Africa's Pretoria High Court, Barnwell (2021) also made the case that South Africa's continued investment in coal-fired power, and the country's delay in climate action against a backdrop of poor healthcare services, compound climate-related distress and traumatic experiences.

Globally, there is insurmountable evidence to suggest that governments and multinational companies not only knew about climate change and the harms to the planet for decades, but actively tried to suppress this knowledge to delay the needed climate actions (Mann, 2021). Institutional betrayal is reflected in measures to actively silence climate scientists and by the industry's deliberate efforts to sow doubt about

climate change and science among the public (Mann, 2021) while lobbying for the watering down of the IPCC's findings and recommendations (BBC, 2021). These subversive acts are directed at public interest institutions and bodies that hold decision-making power that can help avert the climate crisis (Mann, 2021). Moreover, institutional betrayal can be experienced, when community voices are invisibilised, ignored or actively silenced (Barnwell, 2021).

Although experiences of climate injustice are understudied, there is evidence to show that institutional betrayal is experienced quite broadly. An international poll conducted in ten countries found that most children expressed significant climate-related distress, including fear, sadness, anxiousness, anger and despair (Hickman et al., 2021). Climate-related worry was positively associated with a sense of institutional betrayal. The polling study also indicated that those in Global South countries express higher levels of institutional betrayal, concerning climate-related distress. Although they do not directly connect with the potential for psychological harm, climate psychologists clarify that youth rely on the adult world to make socially just decisions and responding in any way otherwise, is a form of generational abandonment (Hickman et al., 2021). Institutional betrayal draws attention to governments' responsibilities to prevent psychological harm. For instance, commitments towards mental health have been cited in the German Constitutional Court's ruling that the freedoms of youth and future generations are violated by the German Federal Climate Law (Klimaschutzgesetz: see BVerfG, 2021, para 22).

Discussion and Concluding Remarks

It is clear that the severity and intensity of lifetime exposures to climate-related psychological adversities for those living in the Global South will depend on global collective action for climate justice. The review has demonstrated that countries in the Global South are particularly vulnerable to climate emergencies, due to historical global inequities, despite being least responsible for the crisis. Within this context, the discussion highlights essential considerations for psychology in its relationship to climate change and the Global South, focusing on the need to centre voices from the Global South (Rother et al., 2021).

This involves providing support and protection for environmental defenders (often the dispossessed indigenous owners of the land), redistributing resources and wealth, developing psychological models to embrace human rights, eco-systemic and decolonial perspectives, and harnessing critical community psychology approaches.

Centering the Voices of At-Risk Populations

Given that the climate emergency does not affect everyone equally, individuals, families and communities in the Global South are already experiencing life-threatening weather events and disruptions to their ways of life. However, most psychological research on the ecological distress comes from Global North contexts and populations (Galway et al., 2019). Communities most affected in the Global South need to be centred in planning, monitoring, research and the decisions that affect their interests (Fernandes-Jesus et al., 2020). Research should focus not only on climate change impacts but also be desire-centred, focusing on what communities believe will assist them in better navigating the climate crisis. These participatory processes must be

inclusive, recognising and reflecting diversity as the climate emergency reflects racialised, gendered, and class issues.

Therefore, significantly more attention needs to be paid towards intersectional factors within these settings. Psychology must centre the experiences of the majority, who are subjected to inequality and impoverished conditions - often exacerbated by pre-existing health conditions - such as physical or mental disabilities. Moreover, those who are most longitudinally exposed — the youth and future generations — must also be included. There is also a need to respectfully access or enhance the harnessing of indigenous knowledge systems that indigenous land defenders and other community stakeholders may hold, via alternative models, retained/residual ancestral wisdoms and practice (Filho et al., 2021; Suffla & Seedat, 2021).

Reinforce Human Rights

Psychologists can reinforce human rights within the climate crisis through strategic documentation, expert testimony, public education and advocacy (Hagenaars et al., 2020). For example, forms of documentation exercises and the provision of expert opinion to the court system may help prevent or correct injustices that could result in profound psychological losses and damages. Climate-related lawsuits have benefited from psychological expertise (Barnwell, 2021). Furthermore, psychological research on climate anxiety has supported the UN Secretary-General's moral case for action and is used more broadly to recognise the concerns of youth climate activists (Hickman et al., 2021). Psychological expertise has also been used to support public education and advocacy (see: Global Network of Psychologists for Human Rights, XR Rebellion and

Avaaz). These documentation processes should ensure that the political, economic, social, psychological, spiritual and moral costs of climate are accounted for.

Democratising of Psychological Knowledge

Although psychology's most obvious strength is its ability to provide spaces where concerns about the climate crises are not only recognised but affirmed (Whomsley, 2021), the gap in mental health care in the Global South calls for innovative approaches. Psychologically supportive spaces can be offered in the form of individual therapy and group sessions assisting in working through difficult emotions, making meaning of their (climate related) circumstances, and supporting those in taking (communal) action to address this, for example, lifestyle changes, climate activism etc (Whomsley, 2021). However, given the population demands and the caveat not to individualise systemic injustices, there is a need to adapt or design new community-led models from and for the Global South, which faces extreme mental healthcare gaps (World Health Organisation, 2008). Peer-support and task sharing strategies are an option, although it cannot be the only solution, as no significant peer-support models across sectors have been widely adopted to date. Finally, the fossil fuel industry has also long shifted blame and responsibilities onto individuals, and psychologists should not fall into this trap (Fernandes-Jesus et al., 2020).

International Solidarities

The magnitude of systemic change required to address the crisis demands that psychology engage systemically on multiple geopolitical fronts strategically directed at decision-makers to influence deep carbon emission cuts. Much energy needs to be directed at companies and state institutions that hold the decision-making power to lead

the world on a path that averts the most severe impacts of the climate crisis (Hickman et al., 2021). Psychologists need to forge coalitions across differences by witnessing the profound psychological consequences of the climate crisis, creating public pressure and working with business and governments to steer action (Whomsley, 2021).

Within this context, psychologists in the Global North are in a powerful position, owing to their geographic proximity to multinational corporations, high carbon-emitting governments and significant consumer markets. Significant attention needs to be placed on changing consumers' behaviours -this behavioural focus should not only be placed on individual actions, but a public health approach should inform public education, policy and regulatory changes, and include addressing proponents of inaction that impede adaptive responses (Brick et al., 2021; Gifford, 2011; Whomsley, 2021). Given that global inequities and the North's relative wealth is historically founded on the colonial 'enterprise,' there is also a strong case for colonial/climate reparations (Perry, 2020; Táíwò, 2022). Furthermore, mental health professionals must also continue to direct actions towards their institutions to reinvest their assets in investments that do not damage the planet (Royal College of Psychiatrists, 2021). It is encouraging that psychologists in the Global North are involving themselves in climate justice movements (Francescato, 2020), not only providing psychosocial support to frontline environmental defenders but also creating advocacy and awareness campaigns, and sometimes themselves shouldering risks (British Psychological Society, 2020).

The training of psychologists thus needs to foreground global issues, local knowledges and planetary concerns within their policies, ethics and training curricula (Hagenaars, et al., 2020; Watkins and Ciofalo, 2011). The climate emergency requires

courage and compassion, and an unwavering commitment to truth, transparency, participation and social justice, for any meaningful global solution.

References

- Adams, M. (2021). Critical psychologies and climate change. *Current Opinion in Psychology, 42*, 13-18.
- Adger, W.N., J.M. Pulhin, J., Barnett, G.D., Dabelko, G.K., Hovelsrud, M., Levy, Ú., Spring, O., & Vogel, C.H. (2014) Human security. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., Barros, V.R., Dokken, D.J., Mach, K.J., Mastrandrea, M.D., Bilir, T.E., Chatterjee, M., Ebi, K.L., Estrada, Y.O., Genova, R.C., Girma, B., Kissel, E.S., Levy, A.N., MacCracken, S., Mastrandrea, P.R. & White, L.L. (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 755-791.
- Barnwell, G. (2021). The psychological and mental health consequences of climate in South Africa. *Commissioned by the Centre for Environmental Rights*.
- Barnwell, G., & Heleta, S. (2021). The slow violence of climate change. *Cairo Review of Global Affairs, 43* (4/4).
- Barnwell, G., Makaulule, M., Stroud, L., Watson, M., & Dima, M. (2021). The Lived Experiences of Place Severing and Decolonial Resurgence in Vhembe District, South Africa. *Awry: Journal of Critical Psychology, 2*(1), 49-68.

- Barnwell, G., Stroud, L., & Watson, M. (2020). "Nothing green can grow without being on the land": Mine-affected communities' psychological experiences of ecological degradation and resistance in Rustenburg, South Africa. *Community Psychology in Global Perspective*, 6(2/2), 87-109.
- Benya, A. (2015). The invisible hands: women in Marikana. *Review of African Political Economy*, 42(146), 545-560.
- BBC. (2021). COP26: Documents leak reveals nations lobbying to change key climate report. <https://bbc.in/3jVmUIG>
- Boyles, A. L., Blain, R. B., Rochester, J. R., Avanas, R., Goldhaber, S. B., McComb, S., ... & Thayer, K. A. (2017). Systematic review of community health impacts of mountaintop removal mining. *Environment international*, 107, 163-172.
- Brick, C., Bosshard, A., & Whitmarsh, L. (2021). Motivation and climate change: A review. *Current Opinion in Psychology*, 42, 82-88.
- British Psychology Society. (2020). 'I took my turn to be arrested'. *The Psychologist*. 33, <https://thepsychologist.bps.org.uk/volume-33/december-2020/i-took-my-turn-friday-be-arrested>
- Bronfenbrenner, U. (1977). *The Ecology of Human Development: Experiments by Nature and Design*. Harvard University Press.
- BVerfG (Bundesverfassungsgericht). (2021). Order of the First Senate of 24 March 2021 - 1 BvR 2656/18 -, paras. 1-270
http://www.bverfg.de/e/rs20210324_1bvr265618en.html

- Chersich, M.F., Wright, C.Y., Venter, F., Rees, H., Scorgie, F. & Erasmus, B. (2018). Impacts of Climate Change on Health and Wellbeing in South Africa. *International Journal of Environmental Research and Public Health*, 15(9), 1884.
- Cianconi, P., Betrò, S., & Janiri, L. (2020). The impact of climate change on mental health: a systematic descriptive review. *Frontiers in psychiatry*, 11, 74.
- Clayton, S. (2020). *Mental health on a changing planet*. In Myers, S., & Frumkin, H. (Eds). *Planetary health: Protecting nature to protect ourselves*. Island Press.
- Clayton, S. (2021). Climate Change and Mental Health. *Current Environmental Health Reports*, 1-6.
- Docrat, S., Besada, D., Cleary, S., Daviaud, E., & Lund, C. (2019). Mental health system costs, resources and constraints in South Africa: a national survey. *Health policy and planning*, 34(9), 706-719.
- Fernandes-Jesus, M., Barnes, B., & Diniz, R. F. (2020). Communities reclaiming power and social justice in the face of climate change. *Community Psychology in Global Perspective*, 6(2/2), 1-21.
- Filho, W.L., Matandirotya, N.R., Lutz, J.M., Alemu, E.A., Brearley, F.Q., Baidoo, A.A. ...Mbih, R.A. (2021). Impacts of climate change to African indigenous communities and examples of adaptation responses. *Nature Communications*, 12, 6224. <https://doi.org/10.1038/s41467-021-26540-0>
- Francescato, D. (2020). Why we need to build a planetary sense of community. *Community Psychology in Global Perspective*, 6(2/2), 140-164.

- Galway, L. P., Beery, T., Jones-Casey, K., & Tasala, K. (2019). Mapping the solastalgia literature: A scoping review study. *International journal of environmental research and public health*, 16(15), 2662.
- Gifford, R. (2011). The Dragons of Inaction: Psychological Barriers That Limit Climate Change Mitigation and Adaptation. *American Psychologist* 66(4):290-302
- Guterres, A. (2021). Solidarity 'Missing in Action', Secretary-General Tells General Assembly, Decrying 'Malady of Mistrust' while Stressing: 'We Must Get Serious' <https://www.un.org/press/en/2021/sgsm20918.doc.htm>
- Global Witness. (2021). Last Line of Defence: The industries causing the climate crisis and attacks against land and environmental defenders. <https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/>
- Hagenaars, P., Plavšić, M., Sveaass, N., Wagner, U., & Wainwright, T. (Eds.). (2020). *Human Rights Education for Psychologists*. Routledge.
- Heeren, A., Daouda, C. M., & Contreras, A. (2021). On climate change anxiety and the threat it may pose to mental health and adaptation: An international study across European and African French-speaking territories. <https://psyarxiv.com/a69wp/>
- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, E., Mayall, E., Wray, B., Mellor, C. & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. [Lancet Planetary Health](https://doi.org/10.1016/S2468-2667(21)00048-1), 5(12), E863-E873.

- Holton, R. (2020). Global Inequality and Global Poverty. In *Challenges of Globalization and Prospects for an Inter-civilisational World Order* (pp. 355-373). Springer, Cham.
- International Society of Trauma and Stress Studies (ISTSS). (2021). Briefing paper: Global Climate Change and Trauma. April 2021 here: <https://istss.org/public-resources/istss-briefing-papers/briefing-paper-global-climate-changeand-trauma>
- Intergovernmental Policy Platform on Climate Change (IPCC) (2021). *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press.
- Jafry, T., Helwig, K., & Mikulewicz, M. (Eds.). (2019). *Routledge handbook of climate justice*. Routledge, Taylor & Francis Group, earthscan from Routledge.
- Johnston, J., & Cushing, L. (2020). Chemical exposures, health, and environmental justice in communities living on the fence-line of industry. *Current environmental health reports*, 7(1), 48-57.
- Levy, B.S. & Patz, J.A. (2015). Climate Change, Human Rights, and Social Justice. *Annals of Global Health*, 81(3), 310-322.
- Luthen, S., Ryan, E., & Wakefield, J. (2021). Born into the climate crisis: why we must act now to secure children's rights. *Save the Children*. <https://bit.ly/3FXfSvG>
- Manganyi, N.C. (1977). *Mashangu's reverie, and other essays*. Ravan Press.
- Mann, M. E. (2021). *The New Climate War: the fight to take back our planet*. Hachette UK.

- Manning, C., & Clayton, S. (2018). Threats to mental health and wellbeing associated with climate change. In *Psychology and climate change* (pp. 217-244). Academic Press.
- Menton, M., & Le Billon, P. (Eds.). (2021). *Environmental Defenders: Deadly Struggles for Life and Territory*. Routledge.
- Mignolo, W. D. (2021). *The politics of decolonial Investigations*. Duke University Press.
- Mishra, V., Seyedzenouzi G., Almohtadi A., Chowdhury TA., Khashkhusa A., Axiaq A., Wong WY., & Harky A. (2021). Health Inequalities during COVID-19 and Their Effects on Morbidity and Mortality. *Journal of Healthcare Leadership*, 13, 19-26.
- Moulton, A.A., & Machado, M.R. (2019). Bouncing Forward after Irma and Maria: Acknowledging Colonialism, Problematizing Resilience and Thinking Climate Justice. *Journal of Extreme Events*, 6(1), DOI: 10.1142/S2345737619400037
- Mushavi, R. C., Burns, B. F., Kakuhikire, B., Owembabazi, M., Vořechovská, D., McDonough, A. Q. ... Tsai, A. C. (2020). "When you have no water, it means you have no peace": A mixed-methods, whole-population study of water insecurity and depression in rural Uganda. *Social Science & Medicine*, 245, 112561.
- Nicholas, L. (1993). *Psychology and Oppression - Critiques and Proposals*. Skotaville Publishers.
- Oswald, Y., Owen, A., & Steinberger, J. K. (2020). Large inequality in international and intra-national energy footprints between income groups and across consumption categories. *Nature Energy*, 5(3), 231-239.
- Palinkas, L.A. & Wong, M. (2021). Global climate change and mental health. *Current Opinion in Psychology*, 42, 12-16.

- Papanikolaou, V., Adamis, D., Mellon, R. C., & Prodromitis, G. (2011). Psychological distress following wildfires disaster in a rural part of Greece: a case-control population-based study. *International journal of emergency mental health*.
- Pearson, A.R., Tsai, C.G., & Clayton, S. (2021). Ethics, morality and the psychology of climate justice. *Current Opinion in Psychology*, 42, 36-42.
- Perry, K (2020). Realising Climate Reparations: Towards a Global Climate Stabilization Fund and Resilience Fund Programme for Loss and Damage in Marginalised and Former Colonised Societies. *Available at SSRN*:
<https://ssrn.com/abstract=3561121> or <http://dx.doi.org/10.2139/ssrn.3561121>
- Pihkala, P. (2020). Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. *Sustainability*, 12(19), 7836.
- Porter, L., Rickards, L., Verlie, B., Bosomworth, K., Moloney, S., Lay, B. ... & Pellow, D. (2020). Climate justice in a climate changed world. *Planning Theory & Practice*, 21(2), 293-321.
- Rafaely, D., & Barnes, B. (2020). African climate activism, media and the denial of racism: The tacit silencing of Vanessa Nakate. *Community Psychology in Global Perspective*, 6(2/2), 71-86.
- Roberts, D. (2021). Speaking at the Centre for Environmental Rights' Panel at the Public Interest Law Gathering. <https://bit.ly/3bxinaR>
- Rother, H., Hayward, R.A., Paulson, J.A., Etzel, R.A., Shelton, M. & Theron, L.C. (2021). The impact of extreme weather events on Sub-Saharan African child and adolescent mental health: the implications of a systematic

- re-view of sparse research findings, *The Journal of Climate Change and Health*. <https://doi.org/10.1016/j.joclim.2021.100087>
- Royal College of Psychiatrists. (2021). A guide to activist networks for mental health professionals. https://www.rcpsych.ac.uk/docs/default-source/events/faculties-and-sigs/child-adolescent/cap-eco-crisis-2021/calc---collective-action---25-february-2021.pdf?sfvrsn=14256abc_2
- Rice, J., Long, J., & Levenda, A. (2021). Against climate apartheid: Confronting the persistent legacies of expendability for climate justice. *Environment and Planning E: Nature and Space*, 2514848621999286.
- Sakaguchi, K., Varughese, A., & Auld, G. (2017). Climate wars? A systematic review of empirical analyses on the links between climate change and violent conflict. *International Studies Review*, 19(4), 622-645.
- Scholes, R & Engelbrecht, F. (2021). Climate impacts in southern Africa during the 21st Century. Commissioned by the Centre for Environmental Rights. <https://bit.ly/3EjPdZH>
- Smith, C. P., & Freyd, J. J. (2013). Dangerous safe havens: Institutional betrayal exacerbates sexual trauma. *Journal of traumatic stress*, 26(1), 119-124.
- Steele, S. J., Abrahams, N., Duncan, K., Woollett, N., Hwang, B., O'Connell, L. ...Shroufi, A. (2019). The epidemiology of rape and sexual violence in the platinum mining district of Rustenburg, South Africa: Prevalence, and factors associated with sexual violence. *PloS one*, 14(7), e0216449.

Straker, G. (2013). Continuous traumatic stress: Personal reflections 25 years on.

Peace and Conflict: Journal of Peace Psychology, 19(2), 209–217.

<https://doi.org/10.1037/a0032532>

Suffla, S. & Seedat, M. (2021). Africa's Knowledge Archives, Black Consciousness and Reimagining Community Psychology. In *Decoloniality and Epistemic Justice in Contemporary Community Psychology*

Tabassum, N. (2021). Climate capitalism or carbon colonialism? The critical features of climate change adaptation and mitigation policies. In *Handbook of Development Policy*. Edward Elgar Publishing.

Táíwò, O. (2022). *Reconsidering reparations*. Oxford University Press.

Thomas, K., Hardy, R. D., Lazrus, H., Mendez, M., Orlove, B., Rivera-Collazo, I. ... & Winthrop, R. (2019). Explaining differential vulnerability to climate change: A social science review. *Wiley Interdisciplinary Reviews: Climate Change*, 10(2), e565.

UNHCR. (2020). 'Climate change is a defining crisis of our time and it particularly impacts the displaced' <https://www.unhcr.org/en-us/news/latest/2020/11/5fbf73384/climate-change-defining-crisis-time-particularly-impacts-displaced.html>

United Nations. (2021). Secretary-General Calls Latest IPCC Climate Report 'Code Red for Humanity', Stressing 'Irrefutable' Evidence of Human Influence:

<https://www.un.org/press/en/2021/sqsm20847.doc.htm>

- Watkins, M., & Ciofalo, N. (2011). Creating and sharing critical community psychology curriculum for the 21st century: An invitation. *Global Journal of Community Psychology Practice*, 2(2), 9-18.
- Weintrobe, S. (2021). *Psychological roots of the climate crisis: Neoliberal exceptionalism and the culture of uncare*. Bloomsbury Publishing USA.
- White, R. (2014). Environmental insecurity and fortress mentality. *International Affairs*, 90(4), 835-851.
- Whomsley, S. R. (2021). Five roles for psychologists in addressing climate change, and how they are informed by responses to the COVID-19 outbreak. *European Psychologist*. <https://doi.org/10.1027/1016-9040/a000435>
- World Bank (2021). *Blog*: Sanchez-Paramo, C., Hill, R., Mahler, D.G., Narayan, A., and Yonzan, N. COVID-19 leaves a legacy of rising poverty and widening inequality, September. <https://blogs.worldbank.org/developmenttalk/COVID-19-Leaves-Legacy-Rising-Poverty-And-Widening-Inequality>
- World Health Organization. (2008). *mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders*. Geneva: World Health Organization.
- Ženko, M., & Menga, F. (2019). Linking water scarcity to mental health: Hydro-social interruptions in the Lake Urmia Basin, Iran. *Water*, 11(5), 1092.