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WATER CHALLENGES AND HUMAN RIGHTS DEPRIVATION: A SOCIO-PHILOSOPHICAL REFLECTION ON SOCIAL JUSTICE AND NIGERIA'S MALADY OF OUT-OF-SCHOOL CHILDREN

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ABSTRACT
This study offers a critical reflection on the nexus between water challenges and the malady of Nigeria's out-of-school children through a socio-philosophical lens. The research demonstrates the capability deprivation that water challenges constitute under Sen and Nussbaum's framework, while contravening constitutional and international human rights obligations. Also revealed by the analysis is the disproportionate impact of Nigeria's water challenges on 26.5 million children, creating structural constraints that render 18.5 million children out of school - a clear violation of Rawls' theory of justice first principle of equal basic liberties, with particular reference to the right to education. The critical reflection further exposes the educational disadvantages that the intersecting factors of gender, poverty and geography compound, particularly, for girls in northern and conflict-affected regions. Employing Nancy Fraser's 3-dimensional model of social justice, the study proposes transformative policy solutions addressing: (1) redistribution through equitable WASH infrastructure investment; (2) recognition of cultural and gendered water burdens; and (3) representation via inclusive governance structures. The findings establish water justice as a prerequisite for educational equity, demanding urgent implementation of climate-resilient school water systems, environmental remediation in polluted zones, and institutional reforms linking water access to educational certification. The study conclusively emphasises that national development imperatives require immediate, measurable interventions to guarantee both water security and schooling access as inter-linked human rights.

Keywords: Water Challenges, Human Rights, Human Rights Deprivation, Social Justice, Out-of-School children

Introduction
There is nothing more essential to life on earth than water. Human life depends not only on access to clean water but also on access to abundant water. For many, getting a glass of water simply involves walking to the kitchen and turning on a tap that always provides safe drinking water. For others, access to clean water is a very complicated task (Krajewski, Schumacher & Dalrymple, 2017). According to United Nations (n.d.), water is at the centre of sustainable development and is essential for socio-economic development, energy and food production, healthy eco-systems and for human survival itself. Water is also at the centre of adaptation to climate change, serving as a crucial link between society and the environment. As the world's population grows, there is an increasing

need to balance all the competing demands on water resources so that whole communities have enough to meet their needs. However, from Lagos, Nigeria to Michigan, USA; from rural sub-Saharan Africa to the teeming megacities of Asia, there are global water challenges. People struggle to access the quantity and quality of water they need to drink, cook, bathe, wash their hands and grow their food (World Vision, 2021). According to Bigas (2012), the importance of water for humans stretches beyond its biological functions; economic progress, gender equality, social welfare and national security are underpinned by access to clean and abundant water.

As the world commemorated World Water Day on March 22, 2025, the United Nations highlighted alarming statistics regarding global water access: a mind-blowing 2.2 billion people worldwide are living without access to safe drinking water, underscoring the urgency of achieving Sustainable Development Goal 6: ensuring water and sanitation for all by 2030 (PMNCH for Women's, Children's and Adolescents' Health and Well-Being, 2025; UNESCO, 2025). In parallel, the United Nations Children's Fund (UNICEF) reported that over 1.42 billion people globally, including 450 million children, live in areas of high or extremely high-water vulnerability. This equates to one in five children worldwide lacking sufficient water to meet their daily needs. Within the context of these global water challenges, Nigeria presents a particularly disturbing record: 26.5 million Nigerian children are exposed to high or extremely high-water vulnerability (Buerchner, 2023). Alarmingly, this figure demonstrates a rough correlation with the country's malady of approximately 18.3 million vulnerable Nigerians classified as out-of-school children – currently the highest internationally, as noted by the Initiative for Research, Innovation and Advocacy in Development (IRIAD) in a 2024 press statement commemorating the International Day of Education (Idu, 2025).

This disturbing confluence of realities around water challenges and educational exclusion raises critical concerns about human rights and social justice for children in Nigeria, particularly those most marginalised, prompting the following research questions:

1. How do water challenges rise to the level of human rights deprivation, with particular reference to schooling rights for children, in Nigeria?
2. To what extent do water challenges compromise the principles of social justice for out-of-school children in Nigeria?
3. How do the intersecting factors of gender, socioeconomic status and geographical location propel vulnerability to water-induced exclusion from schooling for children in Nigeria?
4. What transformative policy approaches could address water-related challenges to schooling rights for marginalised children in Nigeria within a social justice framework?

This study adopts a normative-theoretical and socio-structural analysis, fusing social justice theories and human rights frameworks for a reflection on the interplay between structural water deprivation and Nigeria's malady of out-of-school children. Grounded in sociological and philosophical perspectives, this reflection critiques the systemic human right deprivation and advocates for transformative policy paradigms with a direct and calculated

centre on the rights and dignity of Nigeria's most vulnerable children.

Theoretical Framework

This study is underpinned by a constellation of interrelated social justice theories that systematically link philosophical foundations with legal obligations, progressing from normative analysis to policy solutions.

Normative Foundation: Capabilities Approach

The Capabilities Approach, originated from the works of Amartya, conceptualises justice with reference to people's substantive freedoms or capabilities to achieve the lives they value. Sen's framework emphasises the moral significance of individuals' ability to achieve valuable "beings and doings", like good health and meaningful relationships, as central and integral to human development (Robeyns & Morten, 2020; Wells, n.d.). Nancy Nussbaum went beyond this approach by outlining a list of central capabilities derived from human dignity, including bodily health and education, as prerequisites for a life worth living (United Nations, 2010; Wells, n.d.). Nussbaum's theory highlights that access to fundamental resources, such as water, is integral to ensuring bodily health and human dignity. Water deprivation can thus be conceptualised in terms of a capability failure that diminishes human potential and development (Garrett, 2019). This theoretical perspective is of particular applicability to the analysis of children's capabilities for education, health and participation, with particular reference to how resource deprivation impacts their ability to thrive (Gasper, 1997).

Legal Foundation: Human Rights-Based Approach

The Human Rights-Based Approach (HRBA) operates as a distinct but complementary legal framework, reinforcing the normative claim that access to water and education are not mere needs but fundamental rights. HRBA emphasises accountability, non-discrimination, participation, and empowerment, ensuring that marginalised persons and groups are included in decision-making processes and can fully benefits from their rights (United Nations, 2024; Mariezcurrena, 2023). While the Capabilities Approach provides a philosophical foundation for understanding why such deprivations are unjust, HRBA contextualises these issues within the realities of internationally recognised legal frameworks, such as the United Nations' recognition of water and sanitation as human rights central to health, dignity and prosperity (United Nations, 2024). This approach also directs attention the role of states as duty-bearers with responsibility for fulfilling these rights equitably, particularly for vulnerable populations (Mariezcurrena, 2023).

Structural Analysis: Theory of Justice

This theory, developed by John Rawls, offers a procedural and distributive framework that outlines principles for a well-ordered society, where individuals have equal basic liberties and social and economic inequalities benefit the least advantaged (Lamont & Favor, 2017; Ekmekci & Arda, 2015). Therefore, the principles direct the focus on (1) securing equal basic liberties for all (such as education and political rights), and (2) permitting socioeconomic inequalities only if they benefit the least advantaged (the

difference principle) (Lamont & Favor, 2017. These principles arise from a hypothetical "original position where individuals design societal rules behind a "veil of ignorance", unaware of their own status, wealth, or identity, to ensure impartiality. The theory contributes a moral benchmark for judgment as to whether disparities in water access and educational opportunity can be considered just or fair within a well-ordered society (Ekmekci & Arda, 2015; McCartney & Parent, 2015).

Intersectional Analysis: Intersectionality Theory

Intersectionality theory, grounded in the foundational work of Kimberlé Crenshaw (1989), provides an analytical tool for understanding how social stratification – operating in overlapping variations like gender, class and geography – shapes differentiated experiences of marginalisation (Crenshaw, 1989; Collins, 2015). In the context of water and education, this theory helps explain how structural barriers operate differentially across populations, for example, with particular reference to the disproportionate burdens faced by girls in rural poor households through intersecting forms of marginalisation in water access and educational opportunity (Sorenson, Morssink & Campos, 2011). Gendered labour roles and geographical isolation compel many girls to spend significant time fetching water, leading to "time poverty" that directly limits their access to schooling.

Transformative Framework: Three-Dimensional Model of Social Justice

Nancy Fraser's tripartite model of justice – looking at redistribution, recognition and representation (Fraser, 1995) – offers a comprehensive approach to social justice that extends beyond concerns rooted in the economic dimension of life. Redistribution looks at economic justice, ensuring equitable distribution of resources such as infrastructure and education. Recognition places a stress on cultural justice, advocating respect for diversity and challenging systemic devaluation of marginalised groups, including rural or indigenous communities. Representation preoccupies itself with political justice by enabling affected communities to participate in decision-making processes that impact their lives. Fraser's approach integrates these dimensions to construct a comprehensive framework for policy intervention that addresses material inequalities, cultural misrecognition and political marginalisation (Etchezahar, Barreiro, Albalá Genol & Maldonado Rico, 2022; Knijn, Theuns & Zala, 2020). Nancy Fraser's tripartite model of justice provides a holistic framework for addressing human rights deprivation arising from water challenges, emphasizing equitable resource allocation (redistribution), respect for cultural practices and marginalised identities (recognition) and inclusive political participation (representation).

The Conceptualisation of Human Rights Deprivation

Human rights deprivation refers to the systemic denial of fundamental rights guaranteed individuals or groups under international frameworks like the Universal Declaration of Human Rights and national constitutions, such as Nigeria's 1999 Constitution, based on structural inequalities and power imbalances. These rights include access to life, dignity, education, healthcare, and social security. The United Nations (2025a) defines human rights are rights inherent to all human

beings, regardless of nationality, sex, ethnicity, or any other status. Deprivation occurs when these rights are denied, either through discriminatory laws or practices that violate the principles of universality and inalienability. Human rights deprivation generally manifests on three dimensions: (1) deprivation of liberty, (2) exclusion from access to essential services and (3) blockage from political, social, and economic participation. The United Nations (2025b) defines deprivation of liberty as the condition in which individuals are held without their free consent, often in settings such as detention facilities, psychiatric hospitals, or migrant holding centres. Looking beyond liberty, deprivation encompasses broader dimensions such as the inability to access education, clean water, healthcare or justice due to systemic circumstances linked to socio-economic conditions (United Nations, 2025c) – but also linked to gender, ethnicity, geographical location, race or religion.

The Concept of Social Justice

Social justice is a central subject in political philosophy, sociology and legal studies, addressing issues arising from the need for fairness, equity and the equitable distribution of resources, rights and opportunities in society – and can, therefore, be defined broadly as the fair and equitable distribution of resources, opportunities and privileges within society (Bell, 2007). It encompasses fairness in social, political, and economic institutions and policies, directed at ensuring equity for marginalised segments of populations. John Rawls (1971), in his seminal work A Theory of Justice, defined social justice in terms of fairness and proposes two principles: (1) equal basic liberties for all and (2) the arrangement of social and economic inequalities to benefit the least advantaged of society. Nancy Fraser (2000) moves beyond these principles looking at three dimensions: redistribution, recognition and representation. She therefore emphasises the need to address both economic injustice and cultural and marginalisation in political participation.

The literature on social justice identifies several core principles of social justice: access, equity, diversity, participation, human rights and human dignity (Duignan, 2025; Mollenkamp, 2022; Sen, 2009; Young, 1990). Access involves the availability of critical resources such as education, healthcare, and employment opportunities. Unlike equality, which treats everyone the same, equity involves giving individuals what they need to succeed based on their unique circumstances. Diversity looks at the representation of all groups in societal institutions. Participation involves inclusive decision-making processes. Human rights encompass the protection of civil, political, economic and social rights, while human dignity underscores the importance of respecting the inherent worth of every individual.

In the contemporary era, social justice is a multidimensional concept with applications across various sectors of society. In education, social justice frameworks are used to promote inclusive curricula and social Inclusion looking at the importance of including marginalized groups in higher education to promote equity and access (Adams, Bell & Griffin, 2016). In health care, social justice frameworks are applied to maximise equitable access to services and addressing systemic variations in social determinants of health (Braveman &

Gruskin, 2003). Nurses and healthcare professionals are particularly encouraged to adopt social justice frameworks to balance benefits and burdens across populations (Buettner-Schmidt & Lobo, 2011). Environmental justice, a movement that operates off the principles of social justice, challenges the disproportionate impact of environmental degradation on marginalised communities.

Conceptual Framing of Water Challenges and the Contextual Realities in Nigeria

Water challenges are internationally recognised as a multifaceted phenomenon having to do with issues arising from availability, accessibility, quality and sustainability. Conceptually, water challenges involve both the physical scarcity of water and the socio-political barriers that limit equitable access, particularly for marginalised sectors of communities (United Nations, 2021). Therefore, the concept of water challenges extends beyond mere physical supply to include governance inefficiencies, infrastructural deficits and environmental mismanagement, all of which define water vulnerability (Mehta, 2014). In low- and middle-income countries, water challenges often reflect a disproportionality relative to abundant natural water endowments and systemic constraints on human and institutional capacities to effectively harness these resources (UNDP, 2006). This conceptual framing is particularly relevant to sociological realities within Nigeria, a country paradoxically rich in water resources yet facing acute water challenges across all of its regions to the proportions where almost a third of its children lack access to enough water to meet their daily needs, according to UNICEF (2022).

Nigeria is popularly noted for its abundance of water resources with more than fifty lakes of various sizes and 8 major river basins, but in 2019, according to a World Bank report, approximately 60 million Nigerians were unable to access basic drinking water (Karigidi, 2022). The nature of water challenges in Nigeria is one of both quality and quantity. In some parts of the country, access to the quality of water required for human consumption is a daily challenge. For example, Lagos, although surrounded by wetlands, lagoons and the sea, is running extremely low on accessible, safe and reliable water for the daily use of its people. Demands for a better public water system are becoming more vociferous, as many communities like Araromi are not hooked up to the water grid in the city. According to a report published by Deutsche Welle (2022), many residents in such communities get up every day as early as 5 a.m. to fetch water. The wells are always crowded, which very often renders those out in search of water late for work, school and other business. It has been reported that fewer than two out of five people in Lagos are living without access to potable water. The country's Niger Delta is also experiencing a water crisis paradox. Though the region is privileged with the possession of the biggest and third biggest wetlands in Africa and the planet (Odigwe, Efe & Atubi, 2020), respectively, and is dotted with numerous rivers and streams, access to potable water is a huge challenge for many. This is due in large part to the widespread contamination of surface and ground water in the region caused by oil spills and run-offs into rivers and streams from oil extraction and processing (Nduka

& Orisakwe, 2011). The failure of oil companies to regularly ensure adequate clean-up and environmental remediation adds to the depletion of clean water availability in the region (Karigidi, 2022).

According to the United States Agency for International Development, water challenges are particularly acute in the northern parts of Nigeria, where only 30% of the population has access to safe drinking water and adequate sanitation. Water stress in northern Nigeria is increasing due to the growing demand for water for irrigation purposes and to declining groundwater levels. Water stress occurs when the demand for water exceeds the amount available or cannot meet the daily requirements of people (Karigidi, 2022). The recession of Lake Chad beyond the country's borders, desertification and more frequent and intense drought arising from climate change have aggravated water stress in the region.

In fact, the quantity problem in the country has got to such a level that people in some communities – such as in Benue State – sometimes find themselves forced to store soapy water and water from rinsed clothes to recycle for other purposes (World Bank, 2021). UNICEF (2021) summarises the scope of the water challenges in Nigeria with a quote from its representative in Nigeria, Peter Hawkins: "The world's water crisis is not coming - it is here, and children are its biggest victims" (para. 4).

Conceptualisation of the Malady of Out-of-School Children and its Contextualisation within the Nigerian Reality

Out-of-school children are typically defined as those within the official school age range who are not enrolled in either primary or secondary school (Oyekan, Ayorinde & Adenuga, 2023). This phenomenon rises to the level of a malady when it extends beyond an isolated educational issue to become a pervasive societal challenge that undermines the development and future prospects of an entire generation. The malady of out-of-school children manifests in a variety of forms, including systemic barriers to educational access, socio-economic inequalities, and cultural practices that inhibit children, especially girls and marginalized groups, from receiving an education (UNICEF Nigeria, 2022). These children, deprived of the opportunity to acquire basic knowledge and skills, are denied the foundation for a secure and productive future, thus perpetuating cycles of poverty, illiteracy, and underdevelopment (UNESCO, 2023; UNESCO Institute of Statistics, 2005).

For all the fact that Nigeria operates a well-structured educational system spanning primary (ages 6-12), junior secondary (13-16) and senior secondary (16-19) levels with clearly defined certification processes, the country paradoxically bears the world's highest burden of ossssut-of-school children, with 18.5 million young Nigerians denied access to these educational opportunities. Data published on 13th September, 2019 by the UNESCO Institute for Statistics (UIS) on the world's out-of-school children revealed that little or no progress over more than a decade had been made in the fight against the scourge of out-of-school children in Nigeria. About 258 million children, adolescents and youth, were found to be out of school for the school year ending in 2018, which was around one sixth of the global population of

school-age children (6-17). It was extrapolated from the data that 1 in every 6 children will still be out of primary and secondary school in 2030, and that only six out of ten young people will achieve completion of secondary education.

In the country, close to 18.5 million children do not have access to education – a figure all the more alarming when compared with 2021, where UNICEF-estimates had indicated that 10.5 million children were out of school in Africa's most populous country. "Currently in Nigeria, there are 18.5 million out-of-school children, 60% of whom are girls", Voice of America (2022) quotes Rahama Farah, the head of the UNICEF office in Kano, as saying. The out-of-school children figure reported for the country means that Nigeria has the world's highest number of out-of-school children, and that 1 in 5 of the world's out-of-school children is a Nigerian (Ndanusa, Abayomi & Harada, 2021). According to UNICEF (2022), while Nigeria's out-of-school children crisis is a fiasco affecting children across the country, some children are more likely to be affected than others. Girls – due to early marriage, teenage pregnancy and the burden they bear of water collection over long distances (Jacob, 2022; and Okoh, Emenike, Doma & Akinsola, 2020; and World Bank, 2021) – children with disabilities, children from the poorest households those affected by displacement or emergencies, and children in geographically remote areas are all at disproportionate risk of being rendered out of school. The numerous attacks on schools by jihadists and criminal gangs in the north have notably blocked children's access to education. "These attacks have created a precarious learning environment, discouraged parents and guardians from sending their children to school," Rahama Farah said, as reported by Voice of America (2022, para. 5). “Millions of Nigerian children have never set foot in a classroom – and this is a travesty”, says a statement published by UNICEF (2022) quoting Peter Hawkins, its representative in Nigeria. “Perhaps equally tragic is the high number of children who make it into a classroom, but never make the transition from primary school to secondary school – thereby cutting off their chances for a secure future” (para, 6). An estimated 35% of Nigerian children who attend primary school do not attend secondary school. Half of all Nigerian children never attended secondary school in 2021.

Addressing the Issues at the Crux of the Study

This section offers a socio-philosophical reflection on the issues at the crux of the study: water challenges as human rights deprivations, with particular reference to schooling rights in Nigeria; the extent to which these challenges compromise social justice for out-of-school children; the heightened vulnerability to water-induced educational exclusion is intensified by the intersecting factors of gender, socioeconomic status and geography; and the transformative policy responses appropriate to address these challenges within a social justice framework.

How do water challenges rise to the level of human rights deprivation, with particular reference to schooling rights for children, in Nigeria?

From the theoretical lens of Capabilities Approach, water challenges in Nigeria represent more than just deficits in infrastructural realities; they are deficits in social justice that compromise children’s

ability to live the lives they have reason to value. Sen (1999) conceptualises development in terms of "a process of expanding the real freedoms that people enjoy" (p. 3), stressing that deprivation of basic capabilities – such as clean water, education, health and bodily integrity – blocks individuals on the path freedom. Nussbaum (2011) stands on this, building higher by highlighting core human capabilities: "adequate nutrition and shelter; significant opportunities for emotional development; and protection from preventable ill-health and premature death" (p. 33). Water deprivation – which leads to school absenteeism, disease, and lost childhood opportunities - constitutes a deficit in capability for millions of Nigerian children. This erodes their human dignity and constrains their developmental prospects.

The Human Rights-Based Approach complements the Capability Approach by framing water and education as enforceable rights. The UN General Assembly (2010) "recognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights" (A/RES/64/292, para. 1). The Convention on the Rights of the Child (1989) guarantees every child "the highest attainable standard of health" and "education… on the basis of equal opportunity" (Arts. 24 & 28). Further, the UN Committee on Economic, Social and Cultural Rights (2002) declares "the human right to water is indispensable for leading a life in human dignity" and is "a prerequisite for the realization of other human rights" (E/C.12/2002/11, para. 1). In Nigeria, where 26.5 million children face extreme water vulnerability and 18.3 million are out of school, these rights are systematically denied.

To what extent do water challenges compromise the principles of social justice for out-of-school children in Nigeria?

Water challenges in Nigeria stand in incontrovertible contravention of social justice in the context of John Rawls' principles of justice. Rawls' framework, as articulated in "A Theory of Justice" (1971), emphasises central principles: equal basic liberties and the difference principle, all of which are violated particularly in the context of denying educational rights and opportunities to its 18.5 children (UNICEF, 2022). Firstly, Rawls argues that a society that operates on the principles of justice must ensure equal access to basic liberties, including the right to education. However, in Nigeria, particularly in rural and conflict-affected areas, this principle is compromised as girls, for instance, spend up to four hours daily fetching water (Deutsche Welle, 2022). This contributes significantly to the high dropout rates among females (Voice of America, 2022). This structural barrier to education directly contravenes Rawls' ideals of liberty and fairness under the veil of ignorance. Secondly, Rawls' difference principle is a greenlight signal for inequalities but subject to the condition that the inequalities benefit the least advantaged members of society. Yet, in northern Nigerian states where water access is as low as 30% (USAID), educational exclusion is most prevalent. Moreover, regions like the oil-contaminated Niger Delta present a paradox where abundant natural resources fail to mitigate water crises. This further perpetuates educational inequalities (Karigidi, 2022; Nduka & Orisakwe, 2011).

These injustices are accentuated by "water vulnerability", as characterised by Mehta (2014), where circumstantial events like cholera outbreaks (NCDC, 2021) exacerbate educational exclusion. Such circumstances would be morally objectionable behind Rawls' veil of ignorance, where decision-making should prioritise the interests of the most vulnerable. Furthermore, water scarcity contributes to conflicts that disrupt schooling, highlighting a cyclical relationship between environmental challenges and educational access (Muhammed, Ismaila & Bibi, 2015, 2015; Audu, 2014), with children bearing the brunt of these interlinked crises.

How do the intersecting factors of gender, socioeconomic status and geographical location propel vulnerability to water-induced exclusion from schooling for children in Nigeria?

Kimberlé Crenshaw's intersectionality theory (1989) reflects a powerful lens on how water challenges in Nigeria disproportionately exclude children from schooling through overlapping systems of gender, class and geographical deprivation of human rights. Despite being to more than 50 lakes and 8 major river basins (Odigwe et al., 2020), Nigeria faces acute water scarcity, for example, creating a stratification in vulnerabilities where rural girls from poor households experience compounded disadvantages. Gendered norms, therefore, impose severe "time poverty", as girls bear the primary responsibility for water collection, carrying 40-pound loads over 2 to 4 miles daily (Water Project, 2021). This provides a rough explanation why 60% of Nigeria's 18.5 million out-of-school children are female (Voice of America, 2022). Geographical location exacerbates these challenges. States in the north of the country with only 30% water access (USAID) face extreme educational exclusion, while the Niger Delta's oil-contaminated water (Nduka & Orisakwe, 2011) creates health barriers. Socio-economic stratification further intersects, as poor families cannot afford alternative water sources or school fees when children fall ill from waterborne diseases like cholera, which affected 107,911 Nigerians in 2021, as reported by Nigeria Centre for Disease Control.

These overlapping vulnerabilities create what Mehta (2014) terms "water vulnerability", where physical challenges interact with structural inequalities to produce what UNICEF calls "a travesty" of educational deprivation (UNICEF, 2022). The consequences are cyclical: water insecurity generate conflicts that lead to school shutdowns (Muhammed et al., 2015), while exclusion from educational opportunities perpetuates poverty. As Peter Hawkins, a former UNICEF Representative in Nigeria, notes, this crisis particularly victimises children (UNICEF, 2021), demonstrating how intersectional marginalisation operates through Nigeria's water-education nexus.

What transformative policy approaches could address water-related challenges to schooling rights for marginalised children in Nigeria within a social justice framework?

Water-schooling challenges in Nigeria present a complex crisis that demands transformative policy actions grounded in Nancy Fraser's 3-dimensional model of social justice: redistribution, recognition and representation. This framework offers a

comprehensive approach to addressing the intersecting economic, cultural and political injustices that sustain water deprivation and educational inequity across the nation. There are quantitative and qualitative variations in the manifestation of the across across regions, requiring context-specific applications of the redistribution, recognition and representation principles for the creation of sustainable solutions.

In the north of Nigeria, where desertification and conflict intersect, a redistributive approach is of great imperative. This entails investments in climate-resilient water infrastructure for schools, such as solar-powered boreholes and fog-catching systems. Recognition policies in this region must confront cultural norms that appear to prevail against the education of the girl-child, particularly the cultural practices related to water-collection responsibilities. Collaborating with Islamic scholars to reframe water management practices as a communal rather than gendered duty, akin to successful models like UNICEF's Girls' Education Project in Kano, can foster inclusive educational environments. Political representation efforts should focus on establishing Water User Associations that include diverse community representatives: herders, farmers and educators. Such initiatives can militate against the effects of conflicts disrupting schooling for children and empower local communities in decision-making processes. Conversely, in the Niger Delta of the country, where oil pollution generates water injustice issues, redistributive measures start with enforcing environmental remediation funds provided for in the 2021 Petroleum Industry Act. These funds are critical for cleaning contaminated school water sources, compatible with the vision outlined in the 2011 United Nations Environment Programme (UNEP) Ogoniland report. Recognition strategies for sustainable solutions should integrate indigenous water management knowledge into school curricula through partnerships with local elders, as exemplified by the Niger Delta Wetlands Centre's educational programmes. Representation efforts in the region can be bolstered by mandating school Water, Sanitation and Hygiene (WASH) Committees under the Host Communities Development Trust, ensuring that youth maximally participate in overseeing oil company remediation projects.

Fraser's 3-dimesional model does not isolate economic, cultural or political injustice but binds them together in a unified vision for social transformation. The path forward for Nigeria out of water-schooling challenges must therefore implement redistributive, recognition and representative measures concurrently. Redistributive policies should target school WASH infrastructure and conditional cash transfers to alleviate water burdens on households. Recognition strategies must reform curricula to include water justice education and challenge gendered norms through community engagement. Representation reforms should enshrine marginalised voices in policy development through participatory governance and legal mandates.

Conclusion

Water-schooling challenges in Nigeria, where 26.5 million water-vulnerable children face systematic exclusion from education, constitute a 3-dimentional form of human rights deprivation: the violation of basic capabilities for development, the breach of constitutional and international rights obligations, and the reinforcement of intersecting inequalities along gendered, socio-economic and geographical lines. The demonstrated socio-philosophical correlation between water deprivation and educational exclusion calls for urgent transformative policy interventions that simultaneously address material redistribution through WASH infrastructure, cultural recognition through gender-responsive solutions and political representation through participatory governance.

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