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## Original Article

# Children's Right to Health in the Climate Crisis: State Obligations, Accountability and Intergenerational Justice

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## ABSTRACT

Climate change has evolved from an environmental concern into a systemic public health crisis with profound human-rights implications. Children, owing to their physiological vulnerability, developmental dependency and limited adaptive capacity, are disproportionately exposed to climate-related harms. This article examines the legal foundations of states' obligations to protect and fulfil children's right to health in the context of climate change and seeks to articulate a coherent, child-centred framework for accountability within international human-rights law. This study adopts a descriptive-analytical and comparative legal methodology. It draws upon international human-rights treaties, general comments and interpretive outputs of treaty bodies particularly under the Convention on the Rights of the Child and the International Covenant on Economic, Social and Cultural Rights alongside UN and specialized agency reports, peer-reviewed legal scholarship and relevant international and regional jurisprudence. The analysis demonstrates that: 1. climate change poses multidimensional threats to children's physical and mental health through heat stress, air pollution, food and water insecurity, displacement and climate-induced disasters; 2. international human-rights law provides a robust normative basis for delineating states' positive, negative and due-diligence obligations regarding children's health; 3. a persistent implementation gap exists between legal commitments and domestic practice, largely attributable to inadequate child-sensitive governance, fragmented policy responses and weak monitoring mechanisms; 4. emerging climate litigation initiated by children and youth has begun to reshape accountability narratives, though its effectiveness depends on parallel legal and institutional reforms. Ensuring children's right to health in the era of climate change requires a recalibration of legal and policy frameworks toward explicit child sensitivity. This entails strengthening international and domestic legal norms, enhancing monitoring and adjudicative mechanisms responsive to climate-related health harms and mainstreaming child-centred considerations into mitigation and adaptation strategies. The study underscores the necessity of mandatory child-focused climate impact assessments, improved child-specific data systems and meaningful participatory avenues for children as rights-holders in climate governance.

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## Introduction

In recent decades, the world has been confronted with a reality that recognizes neither borders nor an equal distribution of its impacts across generations. Climate change once regarded merely as a distant scientific warning has today evolved into an objective and pervasive crisis, one that places children, more than any other group, at the epicenter of health-related, environmental and psychological risks. Children, as the primary holders of the right to health and as a group that has contributed the least to the creation of the climate crisis, bear a disproportionately heavy burden of its consequences. The rising prevalence of respiratory diseases resulting from air pollution, the spread of infectious diseases following global warming, threats to food security caused by changing precipitation patterns and droughts and the intensification of climate-related anxiety represent only part of the complex and multifaceted face of this global threat. This reality is not a long-term projection; rather, it is a lived experience that has manifested itself in the daily lives of millions of children around the world. Within the framework of international law, children's health is not a political privilege but a fundamental and non-derogable right. This right does not merely signify the absence of disease or the provision of medical services; instead, it encompasses a broad array of economic, social and environmental determinants that enable a child to enjoy a healthy life with dignity. Accordingly, children's health acquires meaning within a context in which a healthy environment, a stable climate, access to adequate nutrition and the possibility of living free from climate-related threats constitute inseparable components. When climate change disrupts this underlying context, the child's right to health is violated at a structural level a violation that affects not only individual children but also exposes future generations to harm.

Despite this evident linkage between the climate crisis and children's health, domestic legal systems and international mechanisms continue to suffer from serious deficiencies. Many national climate policies lack a child-centered approach, while global instruments addressing climate

change have referred to children's situation only sporadically and in largely non-binding terms. Even in instances where international obligations explicitly emphasize the necessity of protecting children's health, implementation gaps, weak monitoring mechanisms and the prioritization of economic considerations over environmental imperatives have hindered the effective realization of these commitments. These shortcomings raise fundamental questions regarding the scope, nature and content of States' obligations to protect children's health against climate-related impacts. In this context, the principles of intergenerational equity and prevention both of which constitute central pillars of environmental law and human rights law require States not only to refrain from activities that cause serious environmental harm, but also to take proactive measures to prevent foreseeable threats. Children, due to their physical and psychological vulnerability and their heightened dependence on State structures, are entitled to the highest level of preventive protection. Put differently, States cannot disregard climate impacts that threaten children's health or confine themselves to minimal measures; rather, they are obliged to adopt comprehensive, forward-looking policies aligned with international legal standards.

The necessity of the present research emerges precisely at this juncture: to clarify and analyze States' obligations with regard to children's health under climate conditions, on the basis of a clear legal framework grounded in binding international instruments. The central question is whether States are merely required to ensure general conditions conducive to health or whether they are obligated to undertake specific, measurable and proportionate actions tailored to children's needs in the face of climate risks. Relatedly, the study asks what capacities global monitoring mechanisms possess to enhance State accountability and how these mechanisms may be employed to compel States to comply with their obligations. Seeking to fill the existing theoretical and normative gap, this research aims through an examination of international instruments, reports of supervisory bodies, legal practice and scientific findings to present an integrated picture of the current situation and to establish a foundation

upon which States' obligations toward children's health are understood not merely as ethical aspirations, but as binding and operational legal duties. This analysis further endeavors to demonstrate that State inaction in the face of climate threats does not result solely in harm to a particular group; rather, it leads to the gradual erosion of the foundations of societal habitability and to widespread violations of human rights. From this perspective, the present article seeks, in light of the principles of human rights law, children's rights, environmental law and intergenerational justice, to offer a comprehensive analytical framework through which the scope, content and mechanisms for the realization of States' obligations can be delineated. On this basis, the present introduction provides the groundwork for subsequent analyses to rest upon a coherent theoretical and legal foundation and to address the core research questions in a systematic and structured manner.

## **1. Theoretical Framework and Conceptual Foundations**

The theoretical framework of this study is grounded in four core pillars, each of which plays a fundamental role in elucidating the nature and scope of States' obligations to protect children's health against the impacts of climate change. These four pillars are intrinsically interconnected and together constitute a coherent conceptual system through which a comprehensive and in-depth understanding of States' duties within the domains of human rights law, children's rights and environmental law can be achieved. The following sections examine these theoretical foundations in an integrated and analytical manner.

### **1-1. The Human Rights-Based Theory of Health**

The right to health is among the most fundamental human rights and reflects a paradigm shift from a narrowly biomedical conception of health toward a broader, more socially and environmentally grounded understanding. Health, in its legal sense, is not confined to the mere absence of disease or physical impairment; rather, it encompasses a constellation of physical, mental, social and environmental conditions that enable individuals to enjoy a healthy, productive and dignified life (1). From this perspective, children's health is

directly and inextricably linked to environmental quality, access to safe drinking water, food security, stable climatic conditions, air quality and ecological integrity. Any disruption of these underlying conditions amounts to an infringement upon the child's natural life and harmonious development. General Comment No.14, one of the most authoritative interpretative instruments concerning the right to health, provides a clearer analytical framework for understanding this right. In this General Comment, States are identified as bearing obligations to adopt effective measures for disease prevention, to establish healthy environmental conditions and to guarantee access to health services for vulnerable groups (2). Given children's heightened physical sensitivity and their greater social dependence, these obligations acquire particular intensity in relation to them. The document further emphasizes the interrelated dimensions of availability, accessibility, acceptability and quality, demonstrating that health is neither a static right nor one that can be fulfilled through minimal or passive measures. Instead, it requires active policymaking, continuous oversight and structural prevention. Climate change, by threatening environmental foundations, directly undermines the realization of these criteria and places States' obligations under severe and heightened strain.

### **1-2. Intergenerational Justice and the Theory of the Rights of Future Generations**

At the heart of discussions concerning the environment and children lies the principle of intergenerational justice. This principle holds that natural resources, the Earth's habitability and healthy environmental conditions constitute a shared heritage of humankind and that States are obliged to manage them in such a way that future generations may enjoy them to the same extent as the present generation. The principle underscores, on the one hand, the ethical and legal responsibility of States toward children living today and, on the other, the rights of children who are yet to be born (1).

The nexus between intergenerational justice and children's health is rooted in the reality that children are the first group to experience the consequences of declining planetary habitability. Altered precipitation patterns, ecosystem

degradation, the spread of emerging diseases, water scarcity and rising temperatures disproportionately affect a generation that has played the smallest role in creating these conditions. Intergenerational justice therefore requires States to design their climate and environmental policies not on the basis of short-term interests, but with a forward-looking perspective that respects children's right to a healthy and sustainable environment. Within international law, the concept of future generations has gradually evolved from a predominantly ethical notion into a legal foundation. Environmental instruments, such as the Rio Declaration and the core principles of sustainable development, explicitly affirm that States are obliged to preserve environmental capacity for future generations. When these principles are read in conjunction with children's rights instruments, it becomes evident that children's health cannot be disentangled from its environmental context and that any impairment of ecological capacity constitutes, in effect, a violation of the right to health (3).

### **1-3. The Principles of Prevention and Precaution in Environmental Law**

The principles of prevention and precaution, as foundational pillars of environmental law, occupy a central position in the analysis of States' obligations toward children. Under these principles, States are required to prevent foreseeable harm, even in circumstances where scientific certainty regarding the full extent of risk has not yet been achieved (4). In the context of children, this duty assumes heightened significance, as children's physical and psychological vulnerability places them in a particularly precarious position in the face of climate-related risks and the consequences of State inaction manifest more rapidly and more profoundly for them. The preventive principle obliges States to act in advance of crises in response to climate threats that directly or indirectly affect children's health. This principle is not merely aspirational; it entails concrete obligations, including the formulation of climate adaptation strategies, the reduction of pollutant emissions, the establishment of early warning systems, the protection of children during natural

disasters and the reform of environmental policies. The precautionary principle further stipulates that States must not delay necessary measures on the grounds of scientific uncertainty. In light of the substantial scientific evidence demonstrating the harmful and far-reaching effects of climate change on children's health, State inaction or reliance on minimal measures constitutes a direct violation of these principles and a breach of international obligations (3). Minimum standards of child protection, which form a core element of children's rights law, align closely with these two principles. Ensuring a healthy environment, guaranteeing access to natural resources, preventing pollution and mitigating climate crises are integral components of this minimum standard. Whenever State policies fail to secure these basic conditions, the principle of prevention is violated and the child's right to health is placed in jeopardy.

### **1-4. A Child-Centered Approach to Sustainable Development**

Sustainable development attains genuine meaning only when the well-being of present and future generations is ensured in a balanced manner. From this perspective, children, as the primary stakeholders of the future, occupy a central position in development policies. A child-centered approach to sustainable development is founded on the principle that no plan, policy or strategy should jeopardize children's health or the habitability of their environment. Rather than adopting an abstract and impersonal view of development, this approach focuses on the concrete effects of policies on children's daily lives and health.

The position of children within the Sustainable Development Goals a comprehensive set of global commitments aimed at advancing human well-being demonstrates that health, education, a healthy environment, food security and the reduction of inequalities all constitute integral elements of children's rights (5). The principle of "leaving no one behind", prominently embedded in these goals, obliges States to place children at the center of policy design and implementation, ensuring that no age group particularly children becomes a casualty of uneven economic growth or environmental failure. This approach acquires

even deeper significance in the context of the climate crisis. Climate change not only obstructs sustainable development, but also directly targets children's health and future prospects. Consequently, a child-centered approach requires that climate and environmental policies be formulated in a manner that prioritizes children's fundamental needs, including clean air, safe water, food security, a sustainable environment and supportive psychological conditions. Any model of development that disregards these principles is fundamentally incompatible with the concept of sustainable development and with the rights of the child (6).

## **2. The Legal Elaboration of the Right to Children's Health in International Law**

The right to children's health in international law is the product of the convergence of multiple legal and ethical regimes, each of which constitutes a component of the broader protective framework afforded to the child. This right is no longer regarded as a subsidiary or derivative entitlement; rather, it has emerged as an independent, multidimensional right, entailing substantial obligations that render States accountable to children at the national, regional and global levels. In this section, drawing upon existing legal foundations, a precise and integrated analysis of this right is undertaken in order to clarify how, in light of environmental and social transformations, children's health has come to occupy a central position within contemporary international law.

### **2-1. The Right to Health under the International Covenant on Economic, Social and Cultural Rights**

The International Covenant on Economic, Social and Cultural Rights (ICESCR) establishes one of the most comprehensive legal regimes in the field of economic and social rights. The right to health is articulated in Article 12 of the Covenant and encompasses wide-ranging dimensions, including public health, a healthy environment, disease prevention, effective medical treatment and the creation of favorable social conditions for the realization of health. The Covenant rejects a reductionist understanding of health and obliges States to adopt dynamic and preventive policies rather than merely reactive measures (7). Article 12, read in conjunction with Article 2 which

commits States to the progressive realization of rights provides a clear depiction of States' duties with respect to children's health. States are required to prevent discrimination in access to health services, allocate adequate resources for health care and eliminate or mitigate unhealthy environmental and social conditions. Within this framework, children's health is not treated as a matter confined to medical institutions, but rather as the outcome of a broader social, economic and environmental context. General Comment No.14 constitutes a landmark in the legal interpretation of the right to health. This authoritative instrument emphasizes four core elements availability, accessibility, acceptability and quality and establishes them as benchmarks for assessing State conduct. Given children's heightened vulnerability to environmental and health-related harms, the implementation of these elements assumes particular intensity in relation to them. Moreover, States' obligations concerning "the prevention of disease", the creation of "healthy environmental conditions" and the "protection of vulnerable groups" directly from the legal basis for the relationship between children's health and the environment. General Comment No.15, which focuses on the right to water, further identifies safe water as an inseparable component of the right to health. Children's access to sufficient and safe water is not only a prerequisite for physical health but also, from a legal perspective, one of the most significant indicators of compliance with minimum standards of child care. Under the Covenant, States' obligations may be analyzed at three distinct levels: 1. The obligation to respect: States must refrain from any actions that directly threaten children's health. This includes preventing environmental pollution by State entities, abstaining from environmentally harmful policies and ensuring non-interference with children's access to health services; 2. The obligation to protect: States are required to shield children from harmful actions by third parties. This entails regulating industrial activities, controlling pollution, monitoring the quality of food, water and air and systematically overseeing activities that may endanger children's health; 3. The obligation to fulfil: States must undertake positive and proactive measures, including the

formulation of national health strategies, the establishment of health infrastructure, the reduction of climate-related risks, public health education, the enhancement of resilience within child-centered communities and investment in the prevention of diseases arising from environmental change. These three categories of obligations are mutually reinforcing and demonstrate that the right to children's health entails structural and systemic duties, rather than merely service-oriented responsibilities.

## **2-2. The Right to Children's Health under the Convention on the Rights of the Child**

The Convention on the Rights of the Child (CRC), the most comprehensive international instrument in the field of children's rights, recognizes health as one of the most fundamental rights of every child in Article 24. When read in conjunction with Articles 6 and 27, this provision reveals the multidimensional nature of children's health. Article 6 affirms the child's right to life and development, while Article 27 guarantees an adequate standard of living. Accordingly, children's health is not limited to the right to medical treatment; it encompasses the right to development, well-being and enjoyment of a healthy environment (6). Article 24 obliges States to take appropriate measures to reduce child mortality, combat disease, improve nutrition, expand health-care services and ensure access to safe drinking water. In combination with Article 6, which secures survival and harmonious development and Article 27, which requires material and moral well-being, health is conceptualized as a broad right encompassing environmental, economic, social and cultural factors. On this basis, States are required to recognize the environmental dependency of children's health. Air quality, water safety, food security and climatic stability all constitute integral components of this right and any detrimental alteration thereof amounts to a breach of State obligations (8).

General Comment No.15 of the Committee on the Rights of the Child links health to the empowerment and participation of children. Within this framework, health is understood not merely as the product of macro-level policies, but as the outcome of children's ability to participate

in decisions affecting their own health. This interpretation plays a critical role in shaping the concept of the child as an independent rights-holder. General Comment No.26 represents one of the most advanced international legal instruments connecting children's rights with environmental protection. It explicitly affirms that climate change and environmental degradation constitute direct violations of children's right to health and requires States to undertake urgent and robust measures to mitigate environmental risks. This General Comment makes clear that children's right to health is rendered meaningless in the absence of a healthy environment and that States therefore cannot remain indifferent to climate-related threats.

## **2-3. The Environmental Dimensions of the Right to Health**

In the contemporary era, the right to health cannot be meaningfully understood without recognition of its environmental dimensions. The concept of a healthy environment has gradually become entrenched in global and regional instruments and has evolved into an integral component of human rights. In legal discourse, a healthy environment is defined as a condition in which natural elements clean air, safe water, uncontaminated soil; stable climatic systems and sufficient biodiversity are present. For children, this context is of heightened importance, as their physical and cognitive development is directly affected by these factors. Pollution or climatic disruption during critical stages of development can produce irreversible or long-term consequences for children's health (9). Regional human rights systems have further elaborated the environmental dimensions of health. The European Court of Human Rights, particularly in cases involving industrial pollution, has affirmed that States are obliged to prevent foreseeable environmental harm, as such harm may violate the rights to private life, family life and health. This jurisprudence provides a legal foundation for linking children's health to environmental protection. Similarly, the Inter-American human rights system has emphasized the right to a healthy environment and has required States to prevent large-scale environmental harm, even when its source is private (10). Within the African Charter on the

Rights and Welfare of the Child, a healthy environment is recognized as part of acceptable living standards. This regional framework is among the earliest to incorporate environmental protection explicitly within the scope of child protection. Collectively, these developments demonstrate that the right to health cannot be analyzed in isolation from its intrinsic connection to the environment.

#### **2-4. The Status of Children as Independent Rights-Holders**

The evolution of childhood discourse in international law has transformed the child from a dependent being in need of mere protection into an independent rights-holder. This transformation, rooted in the Convention on the Rights of the Child, enables the child to be not only an object of protection but also a bearer of enforceable rights. Historically, children were perceived as voiceless, with their rights mediated primarily through parents or the State. Today, however, children are recognized as possessing inherent dignity, the capacity to express their views and the right to participate in decision-making processes (11). This shift has redefined children's health from a matter contingent upon the will of others into an autonomous right that States are directly obliged to respect and protect. Contemporary international law emphasizes the empowerment of children, affirming their right to be heard in matters affecting their lives and health. This transformation renders health a participatory domain and elevates the position of children within environmental and health policymaking. States are required to facilitate children's participation, ensure access to information relating to environmental and health issues and consider children's views in decisions concerning the management of climate-related risks. This empowerment-oriented perspective serves as a driving force behind the advancement of environmental conceptions of health in international law. Children are no longer mere recipients of services; they are rights-holders entitled to claim their rights and to hold States accountable for inadequate environmental and health policies (9).

### **3. Climate Change as a Systemic Threat to Children's Health**

Climate change is no longer a distant projection; it has become a lived reality for millions of children a reality that begins with their bodies and extends into their futures. The nature of this crisis is *systemic*, in the sense that it simultaneously and interdependently threatens children's physical, mental, developmental and social health, with consequences that are not confined to a single domain but permeate all dimensions of childhood experience. Accordingly, a legal articulation of the right to children's health is inconceivable without a rigorous analysis of climate-related impacts. This section adopts a comprehensive approach to examine the various dimensions of this threat and to clarify its place within international human rights law.

#### **3-1. Climate Impacts on Children's Physical and Mental Health**

Climate change targets children's vital systems at the most sensitive stages of their development. Owing to their biological and developmental characteristics, children are direct recipients of the effects of heat, pollution, malnutrition, emerging diseases and the psychological consequences of environmental instability. First, with regard to physical health, evidence demonstrates that rising temperatures and extreme heatwaves exert additional strain on children's respiratory and cardiovascular systems (12). Children's heightened vulnerability to air pollution leads to increased incidence of respiratory diseases, asthma, immune disorders and impaired physical development. Altered precipitation patterns and the expansion of flooding create favorable conditions for the spread of waterborne and vector-borne diseases, exposing children particularly in underserved regions to infectious illnesses at a significantly higher rate than other groups. Food scarcity and disruptions caused by drought further exacerbate cycles of malnutrition, underweight conditions, weakened immune systems and diminished cognitive capacity (13). Collectively, these factors generate a spectrum of actual and potential violations of children's rights to health and development.

Second, in the realm of mental health, the concept of *climate anxiety* has emerged as an increasingly

global phenomenon. Children, due to their direct experience of harm and their heightened concern for the future, are particularly susceptible to this form of anxiety. Fear of floods, wildfires, displacement resulting from natural disasters and constant exposure to crisis-related news contribute to anxiety disorders, depression, feelings of helplessness and perceptions of injustice. These psychological impacts not only disrupt children's lived experiences but also fundamentally alter their cognitive and social developmental trajectories (11).

Third, authoritative data and documentation reinforce the gravity of these impacts. Research conducted by the World Health Organization indicates that children bear the greatest share of climate-related costs and that their proportion of the disease burden attributable to climate change exceeds that of other population groups. The World Health Organization has identified air pollution as the single greatest environmental threat to children's health. Similarly, reports by the United Nations Children's Fund reveal that more than one billion children are exposed to high or extremely high risk from climate-related crises. These data substantially strengthen the legal and ethical foundations of States' obligations and demonstrate that failure to take climate action is tantamount to a direct violation of children's rights to health and life.

### **3-2. Climate Inequality and Intergenerational Justice**

The climate crisis is not evenly distributed. Children living in impoverished, marginalized, rural and Indigenous communities, as well as children from migrant and homeless families, bear a disproportionate share of its harms. In these contexts, fragile health infrastructure, limited access to safe drinking water, food insecurity and restricted availability of medical care transform climate impacts from a generalized threat into a persistent state of crisis. This structure of inequality is not confined to the domestic level; it also manifests starkly among States (14).

Countries that have contributed least to greenhouse gas emissions often suffer the gravest consequences. Children in Africa, South Asia and certain small island developing States exemplify

this profound injustice. This reality elevates intergenerational justice to a central normative principle in international law. Intergenerational justice entails not only safeguarding the future of coming generations, but also imposing responsibility upon States toward children living today children who lack meaningful opportunities to participate in climate decision-making processes, yet who bear the heaviest burdens of its consequences (15). The cycle of climate inequality carries economic and social ramifications for children on the one hand, while on the other exposing them to cascading violations of fundamental rights, ranging from the right to health and education to the right to an adequate standard of living. Climate inequality thus represents a complex manifestation of breaches of both positive and negative State obligations.

### **3-3. States' Climate Obligations in International Instruments with a Child-Centered Focus**

States' obligations toward children's health cannot be examined solely through the lens of human rights law; they must also be understood within the frameworks of environmental law and climate treaties. Taken together, these instruments form a binding network of obligations requiring States to engage in prevention, mitigation, adaptation and compensation. First, at the level of climate treaties, the Paris Agreement particularly its provisions on adaptation and risk reduction obliges States to design policies that prioritize vulnerable groups, including children. Moreover, the provisions addressing loss and damage and the protection of vulnerable communities provide an important legal basis for strengthening protections for children. Second, the principles of the Rio Declaration, including the principles of prevention, precaution and common but differentiated responsibilities, ensure that States are required to take prompt and effective action against risks capable of harming present and future generations. These principles are deeply interconnected with standards of child protection and provide a normative foundation for claims of State non-compliance in cases of inadequate climate action. Third, the Sustainable Development Goals with a 2030 horizon offer a global blueprint for safeguarding children's health and well-being (16). Goals relating to health,

poverty reduction, food security, clean energy, safe water, climate adaptation and the reduction of inequalities collectively demonstrate that children occupy a central place in global strategies to confront the climate crisis. The foundational commitment that “no one will be left behind” is inherently child-centered, emphasizing that special attention to children’s needs within climate policies is both a requirement of justice and a legal obligation. In sum, the body of international instruments establishes an integrated framework of multi-level obligations for States obligations whose breach is tantamount to disregarding children’s right to health and neglecting their future.

#### **4. An Analysis of States’ Obligations to Guarantee the Right to Children’s Health in the Face of the Impacts of Climate Change**

The right to children’s health, as articulated in the foundational instruments of human rights and environmental law, is a multilayered right that depends upon a constellation of legal, institutional and executive measures adopted by States. In the context of climate change, this right not only requires effective State intervention, but also presupposes a forward-looking, transformative and justice-oriented system of governance. Accordingly, States’ obligations to guarantee children’s health must be examined within four principal frameworks: positive obligations, negative obligations, obligations of international cooperation and the practice of supervisory and monitoring bodies. Taken together, these dimensions provide a clear and comprehensive picture of the scope of State responsibility in addressing climate-related threats to children’s health.

##### **4-1. Positive Obligations of States**

Positive obligations refer to measures that require States to act proactively, purposefully and preventively in order to create the conditions necessary for the realization of children’s right to health. In the context of the climate crisis, these obligations encompass several core pillars: 1. Legislation. States are required to enact and adapt national laws in such a manner that climate-related risks are directly and indirectly reflected in policies on health, the environment, education, urban planning and disaster management. The absence of effective legislation or the existence of

inadequate or inconsistent legal frameworks, is fundamentally incompatible with States’ human rights obligations. The task of the legislature is to establish binding mechanisms for emissions reduction, environmental protection, pollution prevention and the strengthening of societal resilience to disasters. Climate legislation must accord particular priority to vulnerable groups such as children (17); 2. Health-oriented policymaking. Public policies must be designed with a health-centered approach, meaning that ministries of health, environment, education, energy and social affairs must place the impacts of climate change on children’s health at the core of their medium- and long-term planning. A lack of inter-institutional coordination or the absence of integrated policies undermines States’ capacity to realize children’s right to health. States are obliged to subject all development-related decisions to environmental and health impact assessments that explicitly address effects on children; 3. Establishment of early warning systems, resilience-building and climate education for children. One of the most effective tools for reducing harm is the creation of early warning systems, the development of social resilience programs and the design of climate education initiatives for children. Climate education both within schools and across broader social contexts plays a crucial role in empowering children and reducing their vulnerability. Disaster warning systems, when designed with a child-centered approach, can prevent thousands of deaths and injuries. States’ obligations in this regard are both legal and humanitarian in nature, as any failure can leave irreversible consequences on children’s lives; 4. Emissions reduction and adaptation measures. States are required to reduce greenhouse gas emissions while simultaneously implementing adaptation strategies to address new climatic conditions. This obligation is not merely a political objective but forms an integral part of States’ human rights duties toward children. Through the expansion of clean energy, sustainable water management, air pollution reduction and the development of green cities, States must create environments in which children can develop in a healthy manner. Any failure to reduce emissions constitutes, in legal terms, a failure to protect children’s health (14).

#### 4-2. Negative Obligations of States

Negative obligations require States to refrain from actions that directly or indirectly expose children's health to harm. In the climate context, these obligations have a preventive and restraining character, limiting both State and private-sector involvement in projects that pose significant risks: 1. Prohibition of pollution and environmental degradation. States are obliged to prevent any public or private activity that results in severe air, water or soil pollution (18). Many industrial, extractive, oil-related and energy-intensive projects have profound impacts on children's health. States must employ stringent regulatory mechanisms, conditional licensing regimes and effective enforcement measures against violators. Breaches of this obligation constitute violations of both human rights and environmental treaties; 2. Prohibition of harmful projects and unsustainable development. Any development decision that exacerbates climate risks is incompatible with States' obligations toward children. The construction of highly polluting power plants, deforestation, overexploitation of groundwater resources and the establishment of heavy industries in areas where children live are illustrative examples of violations of negative obligations. States must restrict or prohibit activities that increase pollution or undermine children's right to a healthy environment; 3. Prevention of climate discrimination against children. Climate discrimination arises when children in a particular region, social class or group suffer disproportionately greater harm from climate change compared to others. States are required to design mechanisms that eliminate or mitigate such inequalities. The existence of climate discrimination constitutes a direct violation of the principles of equality and non-discrimination in international law and has serious and tangible consequences for children's health.

#### 4-3. The Obligation of International Cooperation

Given the transboundary nature of the climate crisis, States' obligations extend beyond national borders. International cooperation is a fundamental principle of both human rights law and environmental law and forms an inseparable component of States' duty to safeguard children's

health: 1. Transfer of knowledge and technology. States are obliged to share knowledge, technologies and experiences aimed at mitigating climate impacts and enhancing children's resilience. Clean energy technologies, early warning systems, water purification technologies and adaptation strategies represent key manifestations of international cooperation (19). Denying children in less developed countries access to these tools amounts to a breach of the global obligation to protect their health; 2. Climate justice among States. States that bear the greatest historical responsibility for climate change must assume a greater share of responsibility for compensation and support to vulnerable countries. This principle is not merely ethical but normative and is reflected in international instruments. Climate justice entails the equitable distribution of the costs of adaptation, emissions reduction and loss and damage-matters that bear a direct relationship to children's rights; 3. The role of humanitarian and financial assistance. States are required to provide financial, technical and humanitarian assistance during climate-related disasters. Failure to support children affected by such crises is contrary to international obligations and may give rise to international State responsibility (16).

#### 4-4. Analysis of International Practice and Reports

The examination of the practice of supervisory bodies constitutes the most significant basis for assessing State conduct in the area of climate change and children's health. Through the review of national reports, petitions and international complaints, these bodies have developed important binding and interpretative standards. The Committee on the Rights of the Child, in its General Comments, has for the first time explicitly emphasized that climate change constitutes a direct threat to children's right to health. The Committee has required States to adopt urgent measures to reduce emissions, protect vulnerable children and ensure climate adaptation. Moreover, in addressing complaints submitted by groups of children, it has underscored States' multiple responsibilities at both domestic and international levels. The Committee on Economic, Social and Cultural

Rights has likewise clarified in its interpretative work that the right to health cannot be realized without environmental protection. Its reports indicate that States are required to implement pollution reduction and climate mitigation policies as part of their normative obligations in the field of health (19). Special Rapporteurs on human rights and the environment have repeatedly affirmed that children constitute the most vulnerable group in the climate crisis. Their reports serve as essential tools for evaluating State performance and articulating standards for urgent action. In recent years, significant cases have emerged at international and regional levels that place children at the center of climate litigation. These cases have established new foundations for State responsibility in relation to climate change and have clarified the future trajectory of children's climate rights. An examination of these developments demonstrates that the international community increasingly recognizes the role of children in shaping emerging legal practices and norms.

### **5. Monitoring Mechanisms and Enforcement Guarantees**

An examination of children's right to health in the face of climate-related threats acquires real meaning only when issues of monitoring mechanisms and enforcement guarantees are also addressed; for no right-however fundamental-can move beyond mere rhetoric unless it is accompanied by avenues for monitoring, claiming and enforceability. Despite its shortcomings and normative fragmentation, the international legal system has, in recent decades, taken significant steps toward identifying and strengthening protective mechanisms. This section seeks to revisit these mechanisms and to assess their actual and potential capacity to protect children's health in the era of the climate crisis.

The first category of mechanisms consists of treaty bodies institutions that, through periodic State reporting, constructive dialogue and the issuance of concluding observations, play a central role in norm articulation and oversight of implementation (20). Human rights treaty bodies, including the Committee on the Rights of the Child and the Committee on Economic, Social and Cultural Rights, have in recent years adopted

a more attentive approach to the climate situation and, in their recommendations, have emphasized the necessity of integrating health, environmental and children's rights policies (18). This trajectory indicates that treaty bodies have moved beyond general statements and have laid the groundwork for a new discourse on State responsibility one that conceives children's health not as an isolated domain, but as an integral component of climate governance. Alongside periodic reporting, the capacity to consider individual complaints is also gradually becoming institutionalized. Although the pathway for child-centered complaints continues to face procedural obstacles and many children remain unable, in practice, to make use of this mechanism, existing practice demonstrates that it can evolve into a strategic tool for claiming children's rights. Complaints relating to climate harm particularly those brought by groups of children and adolescents have contributed to the development of new interpretative approaches and have compelled States to reassess their actions through the lens of intergenerational justice. At a higher level, international adjudicatory mechanisms are undergoing an unprecedented transformation. The International Court of Justice, by engaging with climate-related issues through its recent advisory opinions, has created an important opportunity to clarify States' obligations toward future generations. The significance of this development lies in the fact that the Court has, for the first time, examined in a coherent legal framework the relationship between climate change, transboundary effects and State responsibility. This inevitably has direct implications for the protection of children, who constitute the most vulnerable group among future generations. Similarly, the European Court of Human Rights and other regional judicial systems have, in recent cases, adopted approaches that may be described as the emergence of "child-centered climate cases". By accepting claims related to air pollution, extreme heat and ineffective climate policies, these courts have effectively opened the door to a broader interpretation of the right to health and the right to life. The recent experience of complaints brought by adolescents in several landmark cases illustrates that international adjudication can become a platform for amplifying the voices of

children who are often marginalized within domestic legislative processes. Alongside international mechanisms, national frameworks play a decisive role in the realization of children's right to health, as States are not only the principal actors within the climate regime but also the primary custodians of coherent domestic health governance structures (21). The formulation of a child-centered national climate strategy represents one of the most important policy tools through which States can move beyond fragmented reactions toward systematic planning. Such a strategy must simultaneously focus on risk reduction, prevention of harmful impacts and the enhancement of children's resilience. Early warning systems, health resilience mechanisms, public education on climate risks, the development of climate-adaptive health services and the establishment of robust data-collection networks on children's health under changing climatic conditions are among the instruments that can lay the foundation for effective governance. Global experience demonstrates that the absence of reliable data on the climate impacts on children's health constitutes one of the most serious obstacles to policymaking. Accordingly, the establishment of a national data-collection system should be regarded not merely as a technical tool, but as human rights obligation owed to future generations. Ultimately, monitoring mechanisms and enforcement guarantees will be effective only if meaningful linkages are established among national, regional and international levels. The climate crisis is inherently transboundary and its consequences for children's health are not confined within national borders. Strengthening judicial cooperation, fostering synergy among human rights institutions and expanding technical and financial support therefore constitute integral components of the protective framework. Within such a structure, guaranteeing children's right to health is not an aspiration, but the outcome of a multilayered oversight system in which no State and no international institution can evade responsibility (22).

## Conclusion

An examination of children's right to health within the context of climate change presents a picture that is at once clear and deeply troubling. What emerges most strikingly is the reality that the climate crisis has transcended the realm of a purely environmental threat and has become a fundamentally destabilizing force for children's physical and mental health a force that affects both the quality of their present lives and the horizons of their future. This research demonstrates that children's right to health is not peripheral but lies at the very heart of the global climate challenge. Without a fundamental reconfiguration of our collective understanding of State responsibility, it is unrealistic to expect that this right will be effectively and sustainably guaranteed in the near future. The analysis reveals that existing international instruments both in the economic and social sphere and in the field of children's rights contain significant potential for the protection of the health of younger generations. The International Covenant on Economic, Social and Cultural Rights, by elaborating the multiple dimensions of the right to health and the Convention on the Rights of the Child, by focusing on children's specific needs, together provide the foundations for a comprehensive protective framework. The General Comments of supervisory bodies further indicate that the international community is gradually reinterpreting children's right to health in conjunction with the right to a healthy environment and a stable climate system. This conceptual shift is not merely symbolic; it represents a substantive normative transformation in which children's health is presented as a benchmark for assessing the effectiveness of climate policies. An analysis of climate impacts on children whether from the perspective of physical and mental health or through the lens of intergenerational justice clearly demonstrates that children stand on the front lines of harm and that the climate crisis itself intensifies existing structures of inequality. Poor, Indigenous, migrant children and those living in developing countries face a convergence of risks ranging from malnutrition and pollution-related diseases to climate anxiety, forced displacement and the erosion of family support networks. For this

reason, climate justice without a specific and sustained focus on children is an incomplete and ultimately ineffective concept. Moreover, the examination of States' obligations reveals that their responsibility toward children is not merely moral, but legal and binding. At both domestic and international levels, States are required to design and implement comprehensive policies aimed at prevention, risk reduction, climate adaptation and the strengthening of children's resilience. Health-centered policymaking, the establishment of early warning systems and educational programs, environmental legislation and emissions reductions all form part of these obligations. States are likewise required to refrain from harmful actions, discriminatory policies and damaging projects that may threaten children's health. This dual structure of positive and negative obligations provides a clear framework for evaluating State performance. Within this context, monitoring mechanisms and enforcement guarantees constitute the backbone of the legal system for safeguarding children's rights. Treaty bodies, through periodic reporting, the examination of complaints and the issuance of thematic recommendations, preserve the normative dynamism of this field. Courts and international adjudicatory systems, by engaging with climate-related litigation, are shaping an emerging jurisprudence that places children at the center of adjudication. At the domestic level, States are compelled to establish sustainable structures for monitoring children's health structures that ensure accurate data collection, transparency and accountability. In light of these findings, it may be concluded that children's right to health in the era of climate change has reached a critical juncture that demands a fundamental rethinking of the international legal order and global governance structures. Accordingly, a set of legal and policy recommendations can help pave the way toward strengthening this right. First, climate treaties should be revised to incorporate explicit child-specific obligations. Existing instruments, while making scattered references to future generations, lack clear and concrete mechanisms for protecting children's health. The inclusion of dedicated obligations would enhance normative clarity and render States accountable for neglecting children's

health. Second, the strengthening of binding enforcement tools in the climate domain must become a global priority; without enforceable mechanisms, recommendations and decisions will lack effectiveness and allow States to evade responsibility. Third, domestic laws should mandate the assessment of climate impacts on children as an integral component of development, urban planning, health and environmental policies. Such assessments can prevent irreversible harm and sensitize decision-making processes to the long-term consequences of policy choices. Fourth, children's participation in consultative and decision-making processes must be reinforced. Children are not merely recipients of policies but rights-holders and direct stakeholders whose voices must be heard. Their participation will render climate governance more humane, transparent and forward-looking. Fifth, the development of child-centered climate health indicators can serve as a vital tool for evaluation, monitoring and policymaking. Indicators capable of accurately and transparently reflecting children's health status, resilience and vulnerability to climate risks can facilitate more effective and targeted policies.

In conclusion, the future of children in the era of climate change depends on the decisions taken today by States and international institutions. If the global community fails to act decisively and in a timely manner to protect children's health, the climate crisis risks becoming a civilizational crisis whose costs will be borne by future generations. Conversely, if States and legal institutions recognize their responsibilities and act through serious, justice-based and intergenerationally equitable policies, there remains hope that children's health will not be a casualty of the climate crisis, but rather the cornerstone for rebuilding a more sustainable and humane future.

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The author declares that there is no conflict of interest related to this research.

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