

MAINSTREAMING CLIMATE ADAPTATION POLICY WITHIN FOOD SECURITY

INTEGRAÇÃO TRANSVERSAL DA POLÍTICA DE ADAPTAÇÃO CLIMÁTICA NA SEGURANÇA ALIMENTAR

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Abstract: The construction of the Human Right to Food Security is a constant evolution. While human rights manifest themselves as self-integrative dimensions and in constant construction, these rights derive their validity from the dignity that every person bears on their individual level as they are being conquered through historical struggles symbolizing the achievement of people against oppression. The World Food Summit, organized by the Food and Agriculture Organization, held in Rome in 1996, definitively associated the fundamental role of the Human Right to Adequate Food with the guarantee of Food and Nutritional Security which includes the right to clean air; a safe and stable climate; access to safe water and adequate sanitation; healthy and sustainably produced food. The IPCC last report states that there are widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have already occurred implying that approximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change. The general adaptation clause is presented in the UNFCCC Paris Agreement on the article 7.1 and establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience, and reducing vulnerability on a perspective of intergenerational equity. Mainstreaming is to integrate this adaptation policy within other policies, coordinating the efforts on systemic, organizational, and individual level, establishing not only a general and apart approach of the article 7.1 of the UNFCCC Paris Agreement, but a full integrated adaptation policy in food security. The bottom-up characteristic of this soft law presents a form of multilateral and multilevel governance approach that presents the possible solution from a global to local perspective. This article is based on bibliographic and document analysis, and it's based on the hypothesis that general policy is better achieved through its integration with a specific one that approaches a specific subject. Briefly the main goal of the adaptation policy is to be mainstreamed with/in food security policy to achieve both objectives thus realizing the aspirations of the international climate change regime and realizing the human right to adequate food.

Keywords: adaptation; climate change; food security; human rights; mainstreaming.

Resumo: A construção do Direito Humano à Segurança Alimentar é um processo em constante evolução. Embora os direitos humanos se manifestem como dimensões auto-integrativas e em permanente construção, sua validade decorre da dignidade inerente a toda pessoa, sendo historicamente conquistados por meio de lutas que simbolizam a afirmação dos povos contra a opressão. A Cúpula Mundial da Alimentação, organizada pela Organização das Nações Unidas para a Alimentação e a Agricultura (FAO) e realizada em Roma em 1996, associou de forma definitiva o papel fundamental do Direito Humano à Alimentação Adequada à garantia da Segurança Alimentar e Nutricional, a qual abrange o direito ao ar limpo; a um clima seguro e estável; ao acesso à água potável e ao saneamento adequado; e a alimentos saudáveis e produzidos de forma sustentável. O último relatório do IPCC afirma que mudanças generalizadas e rápidas na atmosfera, nos oceanos, na criosfera e na biosfera já ocorreram, indicando que aproximadamente 3,3 a 3,6 bilhões de pessoas vivem em contextos altamente vulneráveis às mudanças climáticas. A cláusula geral de adaptação é apresentada no artigo 7.1 do Acordo de Paris, no âmbito da Convenção-Quadro das Nações Unidas sobre Mudança do Clima (UNFCCC), estabelecendo o objetivo global de adaptação, consistente em ampliar a capacidade adaptativa, fortalecer a resiliência e reduzir a vulnerabilidade, sob a perspectiva da equidade intergeracional. A integração transversal (*mainstreaming*) consiste em incorporar essa política de adaptação às demais políticas públicas, coordenando esforços nos níveis sistêmico, organizacional e individual, superando uma abordagem geral e isolada do artigo 7.1 do Acordo de Paris e promovendo uma política de adaptação plenamente integrada à segurança alimentar. O caráter *bottom-up* desse instrumento de *soft law* revela uma forma de governança multinível e multilateral, apontando soluções que articulam as escalas global e local. O presente artigo fundamenta-se em pesquisa bibliográfica e análise documental, partindo da hipótese de que uma política geral é mais eficaz quando integrada a uma política específica que trate de determinado tema. Em síntese, o objetivo central é integrar transversalmente a política de adaptação climática à política de segurança alimentar, de modo a alcançar ambos os propósitos: concretizar as aspirações do regime internacional de mudanças climáticas e efetivar o Direito Humano à Alimentação Adequada.

Palavras-chave: adaptação; mudanças climáticas; segurança alimentar; direitos humanos; integração transversal.

1 INTRODUCTION

Currently, the IPCC issues report on the current state of the planetary climate and its evolution in three areas, namely: Working Group I (Physical Science Base), Working Group II (Impacts, Adaptation and Vulnerability) and Working Group III (Climate Change Mitigation), with its latest work being prepared in 2021 and 2022, with the synthesis of the work being released in 2023.

The AR6 reports present that adaptations are undergoing, but the general scenario learned from the analysis of loss and damage on a global scale demands a better understanding of the adaptation general policy and its consequences to other thematic areas. Mainstreaming is a way of integrating this “general clause” with/in other areas that are driven by specific scientific areas such as food security.

On the matter of Climate Change, the analysis is oriented by the UNFCCC Paris Agreement as a Bottom-Up approach to achieve the global goal on adaptation as well as mitigation that still goes on a primary objective, leaving the article 7.1 as a secondary preoccupation. This means that a Global Environmental Governance effort to achieve this goal is needed.

Mainstreaming on this multilateral, multilevel and with integration of non-classical international actors presents as a possible solution on this specific research field as we have the need to provide “adequate food” not only as a collective way of thinking of this human right, but on an individual basis to guarantee the minimum dignity to mankind.

For the purpose of this article we aim on the first topic to present the Human Right to Food Security as an evolution of the Human Right to “adequate food” as well that implies that it has a direct connection between this and the right to a clean, healthy and sustainable environment which “is generally understood to include the right to clean air; a safe and stable climate; access to safe water and adequate sanitation; healthy and sustainably produced food; non-toxic environments in which to live, work, study and play; and healthy biodiversity and ecosystems¹”.

On the second part we will specifically presents the role of the international climate change law and the development of the Global Environmental Governance on the reconstruction of the multilateralism by inclusion and accountability on a multilevel basis (from global to local), finishing on the third topic with the role of the mainstreaming strategy to fulfill

¹ UN. The Universal Declaration: a catalyst for environmental human rights action. 2022. Available at: <https://www.ohchr.org/en/get-involved/stories/universal-declaration-catalyst-environmental-human-rights-action#:~:text=The%20right%20to%20a%20clean,play%3B%20and%20healthy%20biodiversity%20and>. Access on 10 mar. 2024.

the need from a conceptual and theoretical perspective to the achievement on systemic, organizational, and individual level as an effective policy.

2 FOOD SECURITY AS A HUMAN RIGHT

It is important to reinforce the struggles and demands of civil society (organized or not) that are related to the right to food security or adequate nutrition, including with regard to the dissemination of knowledge on the subject, considering that this is a basic human right for the entire population, as provided for in the Universal Declaration of Human Rights (1948) and the International Covenant on Economic, Social and Cultural Rights (1966).

Human Rights can be classified as those rights that are indispensable to the human condition with quality. These are inseparable rights of each human being, considered as all individual and collective prerogatives whose purpose is to respect their dignity, protecting against the excesses of the State and establishing a minimum of conditions to guarantee quality of life and the dignity of the human person.²

[Humans Rights are] those demands that arise from the very natural condition of the human person and that, therefore, require recognition, respect and even protection and promotion on the part of everyone, but especially those who are established in authority³.

These are rights, therefore, with double protection: both domestically and internationally⁴. In other words, each person can claim their rights both internationally and internally as fundamental rights, enshrined in the current Constitution of a State, under penalty of this instrument called “Constitution” losing its primordial meaning, as noted in article 16 of the Declaration of Man and Citizen of 1789 as we quote: “every society where the guarantee of rights is not assured, nor the separation of powers determined, does not have a Constitution”.

Human rights are based on the source value of the right that is attributed to each human person by the simple fact of their existence. Such rights derive their validity from the dignity that every person bears⁵.

² Piovesan, Flavia. *Direitos Humanos e Justiça Internacional*. São Paulo: Saraiva, 2024.

³ Culleton, Alfredo; BRAGATO, Fernanda Friozzo; FAJARDO, Sinara Porto. *Curso de Direitos Humanos*. Rio grande do Sul: Editora Unisinos, 2009. p. 13.

⁴ Piovesan, Flavia. *Direitos Humanos e Justiça Internacional*. São Paulo: Saraiva, 2024.

⁵ Mazzuoli, Valério de Oliveira. *Curso de Direito Internacional Público*. 6.ed. São Paulo: Editora Revista dos Tribunais, 2012. p. 223.

In this sense, article 1 of the 1948 Universal Declaration of Human Rights: “All people are born free and equal in dignity and rights. They are endowed with reason and conscience and must act towards each other in a spirit of fraternity.”

The three basic principles of Human Rights also derive from this Declaration: 1) inviolability of the person, which reflects the idea that sacrifices cannot be imposed on a person, if these sacrifices bring benefits to others; 2) autonomy of the person, which means that every person is free to practice any conduct, as long as it does not harm third parties and, 3) dignity of the person, which translates as the core of all other rights (as a supra-legal principle or a supreme value).⁶

For this reason, Human Rights operate in a system of accumulation, considering that they subsist mutually, based on their characteristics, such as universality, indivisibility, imprescriptibility, interdependence, historicity, inalienability, and complementarity.⁷ Obviously, there is no succession of dimensions, since such rights have indivisible content, but rather the joining of one dimension with another pre-existing one, that is, the complementation in dimensions. In this sense, the International Conference on Human Rights, held in Vienna in 1993, reaffirmed the indivisibility of human rights.

Therefore, they are all the rights that human beings have, solely and exclusively, because they were born and are part of the human species and must guarantee everyone basic conditions that allow them to lead a dignified life.⁸

Doctrinally, it is customary to divide Human Rights into three large (and classic) dimensions, based on certain historical moments⁹. The first dimension corresponds to civil and political rights; public freedoms; These are rights held by the individual and opposable to the State. These were the first to appear in constitutional normative texts, institutionalized from the Magna Carta, in the year 1215. Second dimension rights correspond to social, economic, and cultural rights; equality rights; collective ownership and immediate applicability. Finally, those of the third dimension are based on the principles of fraternity or solidarity, as they preserve the quality of life; protect the environment, communication and/or the cultural heritage of humanity; allow progress and development without compromising the peace and determination

⁶ Culleton, Alfredo; BRAGATO, Fernanda Frioizzo; FAJARDO, Sinara Porto. Curso de Direitos Humanos. Rio grande do Sul: Editora Unisinos, 2009.

⁷ Jubilut, Liliana. Direito Internacional Privado. São Paulo: Saraiva, 2012

⁸ Leão, M. M.; Recine, E. O direito humano à alimentação adequada. In: Taddei, J. A.; Lang, R. M. F.; Longosilva, G.; Toloni, M. H. A. Nutrição em Saúde Pública. São Paulo: Rubio, 2011, p. 471-488.

⁹ Bobbio, Norberto. A era dos direitos. Rio de Janeiro: Campus, 1992.

of the people. Thus, they correspond to diffuse rights, which emerged due to the globalization of the economy, technological and scientific advances, and changes in international society.¹⁰

The important thing is to understand that human rights exist to protect human beings from tyranny and injustice and guarantee dignity and equal rights between men and women, with the ultimate purpose of promoting the progress of society, the common good, peace, in a state of broad freedom.¹¹

Human rights are under increasing construction, as they are being conquered through historical struggles thus symbolizing the achievement of the people's struggle against oppression, discrimination, arbitrary use of power or omissions on the part of power holders. At present, it is clear that such rights include the right to food security or “adequate food”, a nomenclature that originates from article 11 of the International Covenant on Economic, Social and Cultural Rights, according to the which “the right to adequate food is realized when every man, woman and child, alone or in the community, has uninterrupted physical and economic access to adequate food or the means necessary to obtain it”, an indispensable condition for the survival of humanity¹².

The right to adequate food is an inherent human right of all people to have regular, permanent and unrestricted access, either directly or through financial acquisitions, to safe and healthy food, in adequate and sufficient quantity and quality, corresponding to cultural traditions of its people and that guarantee a life free from fear, dignified and full in the physical and mental, individual and collective dimensions.¹³

International standards already recognize the right of everyone to adequate nutrition and the right of everyone to be free from hunger as prerequisites for the realization of other basic human rights.¹⁴ On the other hand, FAO data informs that approximately 870 million people suffer from chronic hunger in the world. This means that one in eight people in the world does not have access to healthy and adequate food in their daily lives¹⁵.

¹⁰ Tavares, André Ramos. Curso de Direito Constitucional. São Paulo: Saraiva, 2023.

¹¹ Leão, M. M.; Recine, E. O direito humano à alimentação adequada. In: Taddei, J. A.; Lang, R. M. F.; Longosilva, G.; Toloni, M. H. A. Nutrição em Saúde Pública. São Paulo: Rubio, 2011, p. 471-488.

¹² Schutter, Olivier De (United Nations Special Rapporteur on The Right To Food). The World Trade Organization and the Post-Global Food Crisis Agenda Putting Food Security First in the International Trade System. UN, 2011.

¹³ Schutter, Olivier De (UNITED NATIONS SPECIAL RAPORTEUR ON THE RIGHT TO FOOD). The World Trade Organization and the Post-Global Food Crisis Agenda Putting Food Security First in the International Trade System. UN, 2011.

¹⁴ SCHUTTER, Olivier De. No Solutions for Food Crisis without Human Rights. OHCHR, 2011.

¹⁵ FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS. Quase 870 milhões de pessoas no mundo estão subnutridas – novo relatório sobre a fome. 2012. Disponível em: <https://www.fao.org.br/q870mpmesnrsf.asp>. Acesso em: 01 mar. 2024.

The concept of food security gained strength after the Second World War, with the creation of the United Nations in 1945, mainly after the creation of specialized agencies that already understood access to quality food as a human right, as is the case, for example, of the Food and Agriculture Organization of the United Nations, given that, from then on, food insecurity was perceived, in a hegemonic way, as a matter of insufficient food availability for the population in general, or, even more recently, as a result of current social injustice where a strategic food storage and supply policy needs to be associated with the proposal to increase production and access to quality food, for present and future generations.¹⁶

It can be seen, then, that the concept of food security is an issue in permanent construction, as it can be related to different social, cultural, political, and economic aspects, being related to different interests depending on the subject or non-state actor of International Law that analyzes it.

In any case, the concept of food security has become related to ensuring physical access to safe and quality food, as well as economic access for all people to enough food on a permanent basis, and which is produced in a sustainable manner. sustainable, balanced, and culturally acceptable. This vision was consolidated in the declarations of the International Nutrition Conference, held in Rome in 1992, by the FAO and the World Health Organization (WHO). In this way, the nutritional and health aspect is definitively added to the concept, which is now called Food and Nutritional Security¹⁷.

The World Food Summit, organized by the FAO, held in Rome in 1996, definitively associated the fundamental role of the Human Right to Adequate Food with the guarantee of Food and Nutritional Security. From then on, food security gradually began to be understood as a possible human rights strategy.

This concept had to evolve in conjunction with the history of Humanity, as well as changing according to power relations and social organization, in a continuous process of monitoring the different needs of each person and time.

Currently, it is worth highlighting that the right to food security requires the provision of sustainable policies and strategies for production, consumption of food (mainly quality), distribution, health promotion (in general and for all), nutrition promotion healthy, in addition to adequate sanitary conditions for all. This also means that climate change must be considered

¹⁶ SCHUTTER, Olivier De. No Solutions for Food Crisis without Human Rights. OHCHR, 2011.

¹⁷ VALENTE, F. L. S. Do combate à fome à Segurança Alimentar e Nutricional: o direito humano à alimentação adequada. In: VALENTE, F. L. S. Direito humano à alimentação adequada: desafios e conquistas. São Paulo: Cortez Editora, 2002, p.40-43.

in view of the current globalized world, where local events produce global effects as one of the factors of essential importance in public policies on the subject.

This considers the terrible environmental consequences of this global phenomenon, stimulating the integration of efforts between governments and civil society that is between the classic subjects of International Law and non-state actors to promote the monitoring, and evaluation of it to contribute to its better compliance.

Therefore, the incorporation of the human right to adequate food and food security in the various social development strategies regarding the International Climate Change Regime is one of the most effective ways to reverse the situation of thousands of people around the world who are not free from hunger.

3 THE IMPACTS OF CLIMATE CHANGE, GLOBAL GOVERNANCE, AND THE INTERNATIONAL LAW ON ADAPTATION

The IPCC Sixth Assessment Report¹⁸ establishes in 2023¹⁹ that the global surface temperature reached 1.1°C above 1850-1900 attesting that the observed increases in well-mixed GHG concentrations since around 1750 are unequivocally caused by GHG emissions from human activities over this period informing that most of the emission comes from the Developed Countries, affirming that the least developed ones (LDCs) and small island developing states (SIDS) have much lower per capita emissions.

The report states that²⁰ there is widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have already occurred implying that approximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change. Human and ecosystem vulnerability are interdependent. Regions and people with considerable development constraints have high vulnerability to climatic hazards with caused substantial damage, and increasingly irreversible losses, in terrestrial, freshwater, cryosphere, and coastal and open ocean ecosystems²¹.

¹⁸ IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, pp. 4.

¹⁹ The results are referring the years between 2011-2020.

²⁰ IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, pp. 5.

²¹ IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, pp. 5

One of the conclusions on the changes is verified in the report on the statement that²² the climate change has reduced food security and affected water security, hindering efforts to meet Sustainable Development Goals. Economic damages from climate change have been detected in climate-exposed sectors, such as agriculture, forestry, fishery, energy, and tourism.

The United Nations Framework Convention on Climate Change²³ (UNFCCC) establishes the main objective of stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. By the analysis of the AR6 report, this goal is not possible of achievement anymore.

Despite the unsuccess of maintaining the emission on a unhazarded levels, the advanced on creating an international scenario that assumes hardening the restrictions upon emissions or approaching the environment as a Global Public Good²⁴ drives the future of the Climate Change Policies towards a mitigation/adaptation scenario that compromises the countries on a single course of action within the cooperation on a multilevel Global Environmental Governance (GEG).

Reconstruction the multilateralism by responsibility and inclusion is the HLAB²⁵ ideia of approaching what they addressed as a Tiple-Crises, leaded by Climate Change, reduction of biodiversity and pollution. The document “A Breakthrough for People and Planet: Effective and Inclusive Global Governance for Today and the Future” establishes six necessary shifts, including the change in production and consumption, the energy matrix transition to greener ones and anticipatory actions on any governance level on a symmetry within the 17 Sustainable Development Goals²⁶.

This way of thinking is well studied on multiple types of policies. On environmental grounds the multilevel governance is an approach that implies the participation of all actors (Global, National, Regional and Local) as central role for on the search for solutions and implementing the necessary, besides the bureaucracy involved. As a matter of example, we can

²² IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, pp. 6.

²³ UN General Assembly, United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly, 20 January 1994, A/RES/48/189.

²⁴ Alam, Mayesha. Environment as a Global Public Good. UN University Centre for Policy Research. 2022.

²⁵ High-Level Advisory Board on Effective Multilateralism (HLAB), A Breakthrough for People and Planet: Effective and Inclusive Global Governance for Today and the Future. New York: United Nations University, 2023

²⁶ UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1.

use China²⁷ that has a powerful central government yet are dependent of the participation of the local actor involved.

“Governance systems also provide mechanisms, such as insurance schemes and emergency assistance programs, that can help cushion the impact of biophysical forces on human welfare in both the short term and the long term”²⁸. This affirmation is well seen on the Global Center on Adaptation key messages that we will approach above as it affirms that as climate-related disasters increase, the need for emergency response funding grows²⁹.

This creates the possibility of networks of transnational actors that may act independently of its central government but in compliance with their own constitutions and legislation, trying to achieve a common ground to comply to International Law.

The governance in this type of approach is unsymmetric and could be formed by local actors of a country, regional actors of another area, a Sovereign State, etc. The process of forming and maintaining the network is less important than the results it generates.

The networks of local actors directed by general Climate Change police with the directives of the International Climate Change Regime is better visualized by the adoption of the Bottom-UP approach of the Paris Agreement³⁰ which establishes not a hard-law, but a cooperation mechanism that implies the assumption of a Nationally Determined Contribution which is updated in a cycle of 5 years.

On the other hand, the mechanism of the COPs³¹ (Conference of the parties) is drifting by the major resistance of Oil Companies as we can analyze by reading of the 28th COP that suggests energy transition and abandonment of fossil fuels until 2050 without creating a measurable instrument for it. The positive way of seen it is the “beginning of the end” of the fossil fuel era as the UN addresses as a victory on the creation of a fund that allows countries to create resilience as the climate crises increases³².

²⁷ Yi, Hongtao, Chen Huang, Tao Chen, Xiaolin Xu, and Weixing Liu. 2019. "Multilevel Environmental Governance: Vertical and Horizontal Influences in Local Policy Networks" *Sustainability* 11, no. 8: 2390.

²⁸ Kotchen, Matthew J., and Oran R. Young. Meeting the challenges of the anthropocene: Towards a science of coupled human–biophysical systems. *Global Environmental Change* 17.2 (2007): 149.

²⁹ Global Center on Adaptation. *State and Trends in Climate Adaptation Finance 2023*, p.35.

³⁰ UNFCCC (2015). Paris Agreement. Decision CP/2015/L.9. Pub. L. No. Decision CP/2015/L.9. Disponível em: https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf. Acesso on: 30 jan. 2024.

³¹ An example of Global Environmental Governance.

³² UNFCCC. COP28 Agreement Signals “Beginning of the End” of the Fossil Fuel Era. Available from: <https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era>. Acesso on: 30 jan. 2024.

As we create the environment for the premises above, the compromises assumed by the parties on the UNFCCC are still in force as a soft law guided by the principle of intergenerational equity established in its article 2.1³³ and in accordance with their common but differentiated responsibilities and respective capabilities.

Edith Brown Weiss³⁴ presents a specific preoccupation within the access to resources for adapting to global change in the perspective that the non-action scenario will lead us to the demisting the welfare of the future “such as for those poor countries whose climate worsens, the burdens will exacerbate existing inequities in the international community”.

Besides the good principles of the International Climate Change Regime, the bad example of the non-effectiveness of part of its mechanisms and the ugly of a non-action scenario that were driven away by the embryo of palliative measures on global adaptation, the actions are yet suboptimal, despite of the examples of transnational networks such as C40 or region initiatives as Regions4 that on a different approach establishes connectivity on climate adaptation between local³⁵ and regional policymakers³⁶.

The core of the adaptation policy is the UNFCCC Paris Agreement article 7.1³⁷ that establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change. One of the global initiatives to fulfill this widespread objective is the Global Center on Adaptation (GCA), focused on the adaptation of Africa that annually reports since 2020 the “State and Trends in Climate Adaptation”, with a central message that the “adaptation finance needs are rising, though uncertainty remains regarding the size of the gap”³⁸.

For this research, the example of GCA initiative will be restricted to the 2023 report which intersected adaptation finance and humanitarian assistance focused on 4 major premises

³³ UNFCCC (2015). Paris Agreement. Decision CP/2015/L.9. Pub. L. No. Decision CP/2015/L.9.

³⁴ Brown Weiss, Edith, Climate Change, Intergenerational Equity, and International Law (2008). 9 Vt. J. Envtl. P. 621, 2008.

³⁵ Milja Heikkinen, Aasa Karimo, Johannes Klein, Sirkku Juhola, Tuomas Ylä-Anttila, Transnational municipal networks and climate change adaptation: A study of 377 cities, Journal of Cleaner Production, Volume 257, 2020, 120474, ISSN 0959-6526.

³⁶ “Adapting to climate change at the regional level is crucial. However, we suggest that the transnationalization of adaptation governance contributes to the advancement of adaptation measures on the ground and at the same time improves the visibility, aggregation and monitoring of such action globally. We also suggest that developing adaptation tracking systems and incorporating adaptation into platforms such as the Global Climate Action portal could motivate further mobilization and accountability on the topic of transnational adaptation”. Setzer, Joana, Elisa Sainz de Murieta, Ibon Galarraga, Fernando Rei, and Mariângela Mendes Lomba Pinho. “Transnationalization of Climate Adaptation by Regional Governments and the RegionsAdapt Initiative.” Global Sustainability 3 (2020)

³⁷ UNFCCC (2015). Paris Agreement. Decision CP/2015/L.9. Pub. L. No. Decision CP/2015/L.9. Disponível em: https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

³⁸ Global Center on Adaptation. State and Trends in Climate Adaptation Finance 2023, p.3.

that will address the specific need for the next topic. The premises of adaptation for humanitarian purposes are extracted from the 4 major “key messages³⁹” down below:

- *As climate-related disasters increase, the need for emergency response funding is growing.* The importance of accurately tracking and accounting for both adaptation finance and humanitarian assistance funding to avoid double counting or re-labelling of funds will be paramount.
- The most fragile African countries *struggle to access adaptation finance and are instead dependent on emergency response funding to cope with hazards.* Re-evaluating eligibility requirements for accessing international adaptation funding could help to unlock much needed finance for these highly vulnerable states.
- *Only one-in-ten post-disaster reconstruction projects are reported as being designed and delivered with adaptation and resilience objectives in mind.* However, a commitment to build back better should be mainstreamed across all reconstruction projects, ensuring resilience is embedded and maladaptation is avoided.
- *Stakeholders in the emerging Loss & Damage finance agenda can learn from experience in the humanitarian sector for deploying rapid response funding following the onset of a climate-related disaster⁴⁰.*

Within the key messages above, and the previously considerations, part of the conclusion is that are a general preoccupation, but more financing for mitigation than for adaptation policies, excluding the developing areas from the major adaptation actions, affecting moreover the less resilient populations in a countersense of the general principles of intergenerational equity and common but common but differentiated responsibilities, acting in a practical ground against the Human Right⁴¹ to a clean, healthy and sustainable environment that are in the core of the Food Security.

4 ADAPTATION AS A MAINSTREAM POLICY FOR FOOD SECURITY

The previewed IPCC report⁴² affirms that progress in adaptation planning and implementation has been observed across all sectors and regions, generating multiple benefits within its effectiveness in reducing climate risks for specific contexts, sectors, and regions.

³⁹ Global Center on Adaptation. State and Trends in Climate Adaptation Finance 2023, p.35.

⁴⁰ Highlighted by the authors.

⁴¹ UN General Assembly, The human right to a clean, healthy and sustainable environment, A/RES/76/300.

⁴² IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, pp. 7.

Even the impacts of the water availability for rural areas are well addressed as the majority population of urban areas are dependent of it⁴³.

As a main example it informs that are cultivar improvements, on-farm water management and storage, soil moisture conservation, irrigation, agroforestry, community-based adaptation, farm and landscape level diversification in agriculture, sustainable land management approaches, use of agroecological principles and practices and other approaches that work with natural processes, but they are fragmented affecting marginalized and vulnerable groups adversely. This state affirms previously researchers' implications of climate change on food security⁴⁴.

The problem of the fragmentation on policies regarding the food security within climate change adaptation policy has on a theoretical level a possible solution. Mainstreaming or coordination for policy integration is an approach that searches for horizontal and vertical integration which is a possible output of the multilevel governance referred to on the previously topic⁴⁵.

Robbert Biesbroek establishes well-designed research containing the process and the conditions to integrate a policy. For its proposition at the systemic level four processes and conditions are important in the context of adaptation policy integration⁴⁶ which are: political ideology and party positions; institutional alignment; issue attention and issue framing.

At the organizational level⁴⁷, three processes and conditions are frequently found to enable or constrain policy integration which are: capacity; stickiness; accountability with two additional processes; design and timing related to design the integration itself.

Finishing the approach there is an individual level⁴⁸ consisting in the political commitment, capacity, and core beliefs which “are found to be key processes and conditions that shape policy integration processes”.

Analyzing the purpose, it's possible to achieve a position that: the construction that drives any policy integration with climate change adaptation is a panoramic view of the problem

⁴³ Food and Agriculture Organization of the United Nations (FAO). Climate change, water and food security. Available at: <https://www.fao.org/3/i2096e/i2096e00.htm>. Access on: 06 Feb. 2024.

⁴⁴ Gregory P.J, Ingram J.S.I and Brklacich M. Climate change and food security. *Phil. Trans. R. Soc. B*360:2139–2148.

⁴⁵ Robbert Biesbroek, Policy integration and climate change adaptation, *Current Opinion in Environmental Sustainability*, Volume 52, 2021, Pages 75, ISSN 1877-3435.

⁴⁶ Robbert Biesbroek, Policy integration and climate change adaptation, *Current Opinion in Environmental Sustainability*, Volume 52, 2021, Pages 76, ISSN 1877-3435.

⁴⁷ Robbert Biesbroek, Policy integration and climate change adaptation, *Current Opinion in Environmental Sustainability*, Volume 52, 2021, Pages 77, ISSN 1877-3435.

⁴⁸ Robbert Biesbroek, Policy integration and climate change adaptation, *Current Opinion in Environmental Sustainability*, Volume 52, 2021, Pages 78, ISSN 1877-3435.

with multiple layers between the abstract level of the system itself, the chart of the government organization and the people who represents the policymaking to fulfill the expected outcomes of the adaptation.

For the purposes of mainstreaming the policy needs to be adaptive⁴⁹ since the data and the need for adaptation increase as demonstrated before. Within this aspect, the risk assessment for climate change adaptation policy⁵⁰ is that which frames and prioritize climate change risks alongside other risks in order to implement timely responses within the key challenge “to identify how systemic risks cascade through interdependent networks, including for infrastructure, businesses, vulnerable communities, ecosystems and ecosystem services”⁵¹ as we seen before as on the 4th item of the key messages of the Global Center on Adaptation⁵².

The mainstreaming process needs to solve the adaptation paradox that exists between climate change as a global risk and the vulnerability as locally experienced⁵³. On this aspect, the premises of the multilevel environmental global governance and the criteria above try to enable some sort of emergency exit for the noticed fragmentation between the two major policies could be solved from National Adaptation Programs of Action, or the practice of deliberative environmental governance national wide with subnational representation.

This expanded governance could be understood in the Christine Wamsler and Stephan Pauleit⁵⁴ strategy framework for implementation of mainstreaming in practice. The framework starts with adding-on mainstreaming by the establishment of “specific on-the ground projects or programs that are not an integral part of the implementing body's sector work but directly target adaptation or related aspects”.

The next aspect is a programmatic mainstreaming “by the modification of the implementing body's sector work by integrating aspects related to adaptation into on-the-ground operations, projects or programs”.

⁴⁹ Warren E. Walker, S.Adnan Rahman, Jonathan Cave,. Adaptive policies, policy analysis, and policy-making, European Journal of Operational Research, Volume 128, Issue 2, 2001, Pages 282-289, ISSN 0377-2217.

⁵⁰ Adger W. Neil, Brown Iain and Surminski Swenja 2018. Advances in risk assessment for climate change adaptation policy. Phil. Trans. R. Soc. A.376. p. 5.

⁵¹ Adger W. Neil, Brown Iain and Surminski Swenja 2018. Advances in risk assessment for climate change adaptation policy. Phil. Trans. R. Soc. A.376. p. 6.

⁵² Global Center on Adaptation. State and Trends in Climate Adaptation Finance 2023, p.35.

⁵³ Jessica Ayers; Resolving the Adaptation Paradox: Exploring the Potential for Deliberative Adaptation Policy-Making in Bangladesh. Global Environmental Politics 2011; 11 (1): 62–88

⁵⁴ Wamsler, C., & Pauleit, S. (2016). Making headway in climate policy mainstreaming and ecosystem-based adaptation: Two pioneering countries, different pathways, one goal. Climatic Change, 137(1), 71–87.

After, must be a “modification of managerial and working structures, including internal formal and informal norms and job descriptions, the configuration of sections or departments, as well as personnel and financial assets, to better address and institutionalize aspects related to adaptation.”

The governance applies intra and inter-organizational on the fourth as it must be:

The promotion of collaboration and networking with other departments, individual sections or stakeholders (i.e., other governmental and non-governmental organizations, educational and research bodies and the general public) to generate shared understanding and knowledge, develop competence and steer collective issues of adaptation⁵⁵.

The fifth aspect is the “modification of formal and informal planning procedures, including planning strategies and frameworks, regulations, policies and legislation, and related instruments that lead to the integration of adaptation”. The final step is to guarantee the “higher level support to redirect the focus to aspects related to mainstreaming adaptation. The research tries to apply horizontal and vertical integration of the adaptation policy predicting a intra and inter organizational governance to achieve its objectives.

The systematic literature review of Jeroen J. L. Candel⁵⁶ if we address their topics as a method of improvement this cited intra and inter-organizational food security policy is a challenge and a solution as it can deal with a governability that is characterized by high degrees of complexity determined by a wide array of domains (agriculture, trade, fisheries, environment, development cooperation, and energy) and they many actors and institutions.

As a complex system it tries to surpass failures of the current institutional architectures as it could solve to the “lack of national and subnational governance arrangements and associated studies, especially in developing countries”. Nevertheless, it provides a possible solution to the “arrival of new players at the forefront” as it could deal on this expanded scenario with International, National and Subnational challenges.

As a form of conflict solution, it’s possible to serve as a consensual cooperative effort to address as many desires as possible from these government and non-government actors and the “calls for the allocation of sufficient resources and the integration of democratic values in food security governance”.

⁵⁵ Wamsler, C., & Pauleit, S. (2016). Making headway in climate policy mainstreaming and ecosystem-based adaptation: Two pioneering countries, different pathways, one goal. *Climatic Change*, 137(1), 71–87.

⁵⁶ Candel, J. J. L. (2014). Food security governance: a systematic literature review. *Food Security*, 6(4), 585–601. doi:10.1007/s12571-014-0364-2.

The example of Brazil could be brought as it has a National Food Security⁵⁷ and a National Climate Change Policy⁵⁸ with the intention of establishing adaptation within the environmental bias as a center of its objectives as both connected by the center government with capillarity through the Federative System.

Both Policies are established on a National and Subnational representation on an intersectoral⁵⁹ approach between affirming the human right to food and to confront the environmental aspects of climate change, addressing specifically on the second one the same expectations we saw in the UNFCCC Paris Agreement article 7.1⁶⁰. Yet, it's not fully integrated.

Specifically addressing the Food Security Policy, the 5th Global Food Security Conference⁶¹ will address specifically:

1. Towards net zero
2. Enhancing sustainability and resilience of food systems
3. Challenges of the true cost of producing food
4. Models and applied methodologies to study food systems dynamics and trade-offs
5. Ensuring equity and fairness across food systems
6. Food politics, governance, and accountability of food system actors
7. Addressing changing dietary demands and inequities in an interconnected world
8. Novel food sources and technologies: Upscaling and acceptability
9. The future of farms, farmers, and farming
10. Robust sustainable food systems to reduce losses and food waste

As the literature on the risk and impacts of loss and damage increases, the preoccupation that are addressed on the 2024 conference reflects previous studies on the preoccupation between climate change and food security on a multiple level, presenting an evolution on the aspects of this intricate subject.

Analyzing the themes around the conference, the mitigation policy is addressed on “towards net zero” and the adaptation police are reflected when the will of the parties are to enhance sustainability and resilience of food systems, to robust sustainable food systems, to reduce losses and food waste and upscale of food politics, governance, and accountability of food system actors, yet is not integrated a full-scale policy as the system of adaptation is not established, but only considered.

⁵⁷ Brazil. Law 11.346/2006. National Food and Nutrition Security System – SISAN.

⁵⁸ Brazil. Law 12.187/2009. National Policy on Climate Change.

⁵⁹ Chmielewska, Danuta; Souza, Darana (2011): The food security policy context in Brazil, Country Study, No. 22, International Policy Centre for Inclusive Growth (IPCIG), Brasilia. P. 3.

⁶⁰ UNFCCC (2015). Paris Agreement. Decision CP/2015/L.9. Pub. L. No. Decision CP/2015/L.9.

⁶¹ ICFS. 5th Global Food Security Conference.

Mainstreaming as we saw previously is to integrate adaptation within other policies, coordinating the efforts on systemic, organizational, and individual level, establishing not only a general and apart approach of the article 7.1 of the UNFCCC Paris Agreement, but a full integrated adaptation policy in food security as we have seen above.

5 FINAL CONSIDERATIONS/CONCLUSIONS

The right to adequate food is an inherent human right of all people to have regular, permanent, and unrestricted access to safe and healthy food, in adequate and sufficient quantity and quality, corresponding to cultural traditions of its people and that guarantee a life free from fear, dignified and full in the physical and mental, individual, and collective dimensions that includes the connection between the right to adequate food with the right to clean air; a safe and stable climate; access to safe water and adequate sanitation; healthy and sustainably produced food

This means that Food Security is an evolution of the Human Right to adequate food and the FAO data that informs that approximately 870 million people suffer from chronic hunger in the world presents a conclusion that this is a human right that suffers from concrete actions in a way to reverse the massive hunger that occurs to 1 in 8 people in the world.

Climate change demonstrates a future scenario of worsening of the situation while the various constants in food production on a global scale will become unstable and will present themselves with variables that includes the desertification of certain areas, the flooding of others and changes in the interaction of biomes, its fauna and flora and which will impact populations, especially the most vulnerable.

In other words, those who are most affected will find themselves in a state of even greater vulnerability while other people will be placed in a situation of food insecurity or even extreme hunger. The prospect of a scenario in which there are no concrete actions to adapt in relation to food security is remote compared to the already known initiatives.

However, when we verify the concerns presented by the referenced international actors, it appears that investment in adaptation strategies and actions is secondary and that we must focus on building adaptation as a general policy, as well as a policy integrated directly into specific actions for the sector studied.

The logical of the approach of integration between adaptation police as a mainstream aspect of climate change on food security that where driven this study relies on the perspective

of the mutual transformation between the participants by the chosen system of governance as a Bottom-UP strategy and their acknowledge of climate change risks and impacts at a local level, channeling change through behavior adjustment to the necessary outcomes as we can see on the Sustainable Development Goals and the United Nations HLAB purpose of the Breakthrough for People and Planet.

As we presented on the last topic of this article, “as the literature on the risk and impacts of loss and damage increases, the preoccupation that are addressed on the 2024 conference reflects previously studies on the preoccupation between climate change and food security on a multiple level, presenting an evolution on the aspects of this intricate subject”.

For the matter of an applied governance strategy, we suggest the need for a “promotion of collaboration and networking with other departments, individual sections or stakeholders (i.e., other governmental and non-governmental organizations, educational and research bodies and the general public) to generate shared understanding and knowledge, develop competence and steer collective issues of adaptation” as we saw above.

This particularly view is probably an open window of opportunity even to reverse the food insecurity from nowadays levels if it seems directed to change behavior and the conscience of the problem at a local and regional levels, gaining acceptance of the local population and regional governments as part of the governance process through the implementing of the principles and rules of the International Climate Change Regime.

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