



EXTREME GLOBAL CLIMATE CHANGE EFFECTS ON HUMAN DIMENSION: CHALLENGES OF PROTECTION FOR VULNERABLE PEOPLE¹

A DIMENSÃO HUMANA DOS EFEITOS EXTREMOS DAS MUDANÇAS CLIMÁTICAS GLOBAIS: DESAFIOS DA PROTEÇÃO AOS VULNERÁVEIS

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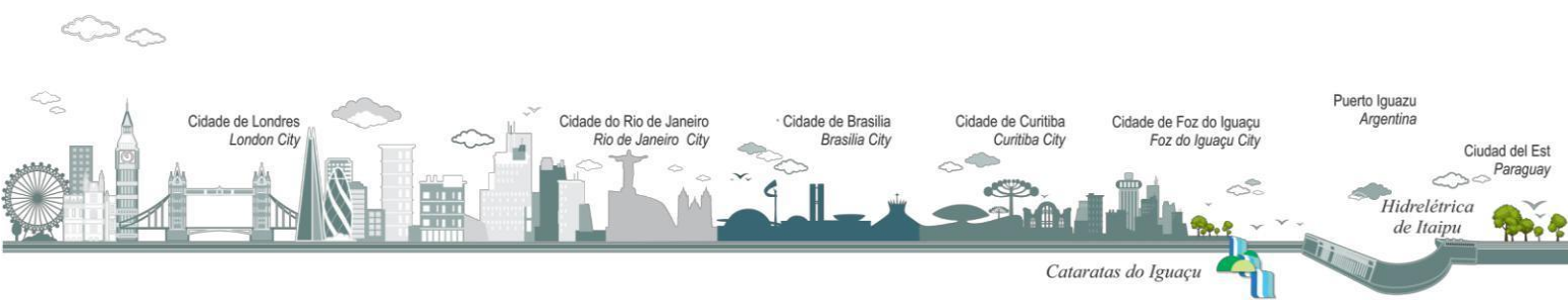
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Abstract: This article is based on the human interaction on Earth, which can generate uncertainties in the environment, with a universal proportion of worsening climate change that points the vulnerabilities to direct experience with socio-environmental risks. The objective was to highlight the changes in the risks of contemporary societies. The method used to approach the system is systematic, through bibliographic, documentary, and normative research. Is possible to demonstrate different scenarios of extreme climate events in all continents, with emphasis in small island States, African, middle-income and development countries in the process of implementing the Sendai Strategic Framework for Risk Reduction, being as a goal the management of sustainability to mitigate the effects arising from human interaction in Gaia. Vulnerable people are most affected by inequalities and exposures in their ways, their qualities, and their living conditions. Human rights come to support this public, whose protection implies the defense of these rights. The current challenges on the subject matter in the practical and immediate implementation of mechanisms to cope with the vulnerabilities created in Risk Societies. This coverage demonstrates that effects on the environment do not only impact on biota (faun and flora), but mainly on multiple human dimensions and societies. In this research it was noticed that the human dimension and the extreme effects of global climate change interact with each other to the point where

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it is necessary to raise awareness and adopt a rational posture about the potential of socioenvironmental risks that currently affect peoples, especially, vulnerable and environment.

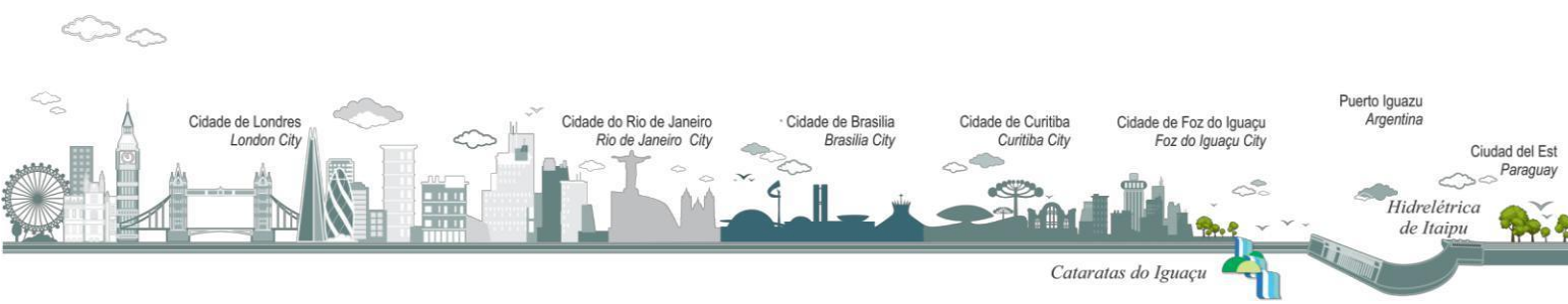
Key words: Extreme Climate Events. Socio-Environmental Risks. Protection of People and Environment. Human Rights.

Resumo: Este artigo tem como fundamento a atuação humana na Terra que gera consequências negativas no ambiente, atingindo uma proporção universal com o agravamento dos efeitos das mudanças climáticas globais que apontam os vulneráveis à vivência direta com os riscos socioambientais. Objetivou-se evidenciar como ocorrem esses riscos no contexto das sociedades contemporâneas. O método utilizado para abordagem do tema é o sistemático, por meio de investigação bibliográfica, documental e normativa. é possível demonstrar que a partir dos cenários dos eventos climáticos extremos em todos os continentes, com ênfase aos Estados insulares, países africanos sem litoral, países de renda média e em desenvolvimento, onde os atores envolvidos precisam aplicar o quadro Estratégico de Sendai para a redução de riscos visando a Gestão da sustentabilidade, com ênfase na Agenda 2030 pelo Objetivo 17 – Justiça, paz e fortalecimento das instituições para adaptação em face desses efeitos que decorrem da interação humana em Gaia. Os povos vulneráveis vêm a ser os afetados mais intensamente pelas desigualdades e exposições em seus modos, suas qualidades e suas condições de vida. Os direitos humanos vêm a amparar esse público, cuja tutela implica na defesa desses direitos. Os desafios correntes sobre a temática importam na concretização prática e imediata de mecanismos de enfrentamento ante as vulnerabilidades criadas nas Sociedades de Risco. Essa abrangência demonstra que os feitos no meio ambiente não repercutem apenas na biota (fauna e flora), mas principalmente nas múltiplas dimensões humanas e nas sociedades. Nesta pesquisa foi constatado que a dimensão humana e os efeitos extremos das mudanças climáticas globais interagem entre si ao ponto de ser necessária a conscientização e adoção de uma postura racional acerca a potência dos riscos socioambientais que atingem a Humanidade na atualidade, especialmente, os vulneráveis.

Palavras-chave: Eventos climáticos extremos. Riscos Socioambientais. Proteção dos Vulneráveis e do Ambiente. Direitos Humanos.

INTRODUCTION

This study considers the concern with the planet Earth and peoples to offer the behavior of the actions and extreme effects of this interaction, especially about the affectation in the environment that generate reactions as risks to vulnerable people. What drives this article are the scars and the condition that this public has suffered most intensely in the face of extreme climatic events, whose view has been affecting vulnerable people and the environment located in African countries, middle income, island states and developing countries. The events in social processes that destroy the environment, aggravate existing damage, extinguish species, and put at risk human existence alters in a whole the social, economic, political, ecological organization and the qualities, kinds, and social conditions of life of individuals, where the applicability of the protection of human rights and the environment is essential.





This situation requires to identify and analyze how these effects are configured in socio-environmental risks. Therefore, clarifying how is the figure of the peoples in the legal and environmental sphere in his performances in the environment matters in delineating how the worldwide misstep of the search for justice is.

EXTREME CLIMATIC EVENTS IN SOCIAL PROCESSES

The main axis of this study has the human essence to be intrinsically linked and inserted in Gaia, who's natural is not destitution of nature and the artificial world. There is an opportunity to do better performances and knowledge about this interaction, strengthening its structures among species (LOVELOCK, 2016). Thus, the right to life is inserted in these bonds, since:

Art. 5 ° All are equal before the law, without distinction of any nature, guaranteeing Brazilians and foreigners residing in the country the inviolability of the right to life, freedom, equality, security, and property (BRAZIL, 1988).

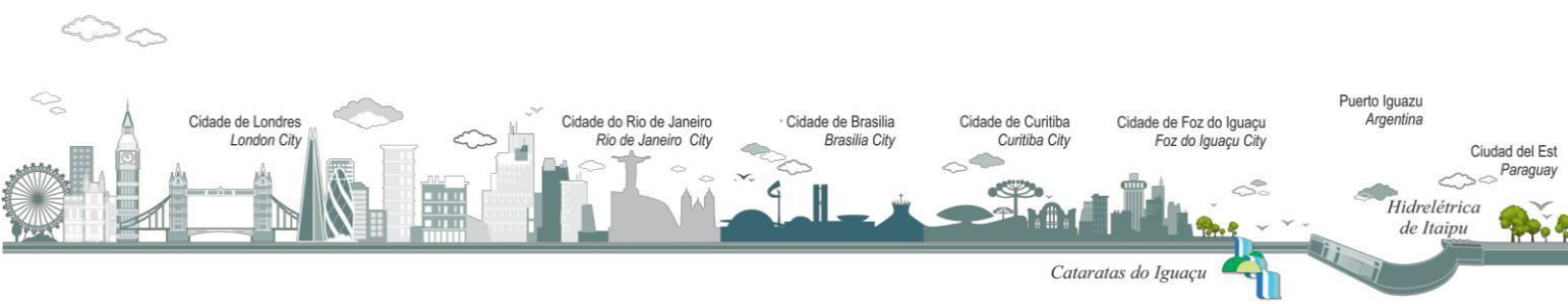
In turn, these rights:

Art. 3 are fundamental objectives of the Federative Republic of Brazil: I - Building a free, fair and solidary society; II - Ensuring national development; III - Eradicating poverty and marginalization and reducing social and regional inequalities; IV - Promoting the good of all, without prejudices of origin, ethnic, genre, age and any other forms of discrimination.

Art. 4 ° The Federative Republic of Brazil is governed in its international relations by the following principles: IX - Cooperation between peoples for the progress of humanity (BRAZIL, 1988).

This understanding also came to be recognized and legally regulated through the World Conference of Peoples on Climate Change and Mother Earth Rights in Cochabamba, Bolivia, in 2010. As a result, there is the Universal Declaration of the Rights of Mother Earth, whose impact on the protection of climate vulnerable is to fulfill the obligations of societies. Deep down, its devices are designed to ensure human well-being with the environment in an intergenerational status, to enshrine regulations, protection to protect, defend and conserve the Earth and its dependents, to restore the integrity of natural life cycles and its balance as purposes (GARN, 2010).

In the way that man has taken space in his evolution, there are the reactions of this temporal aspect that forces him to take responsibility in the face of his obligations emanating from the disposition of rights, because men belong to a species that has awareness and





knowledge of what affects the environment, whose human behavior is the main factor of ecological problems, implying responsibility for the preservation and protection of the elements that allow life to be available and the repair of the damage generated, noting that Gaia harbors all kinds of life (CARVALHO, 2011).

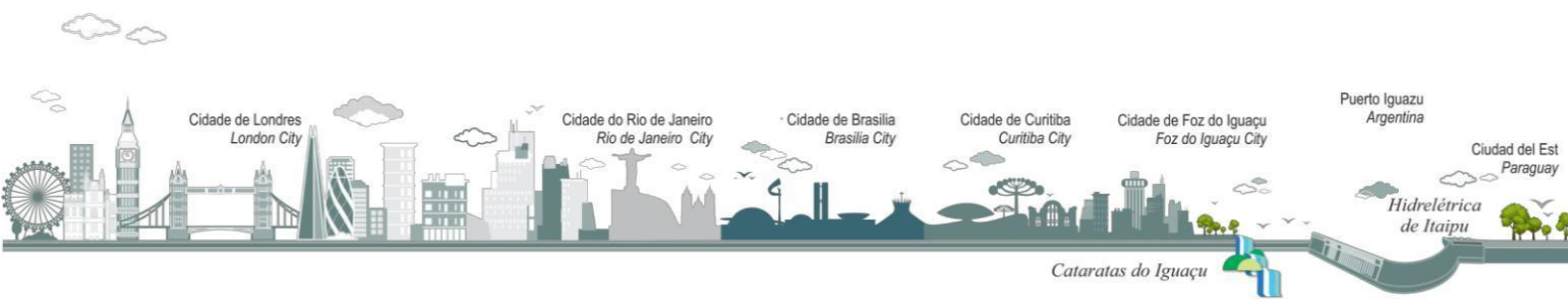
As the human being has difficulties in comprehend in relation to himself, it is pointed out that there is an interaction with the way of life of other living beings, that is, the ecology (NALINI, 2004). In view of this situation, human actions affect the environment and, consequently, generate changes in the environment, which has an impact on the *modus vivendi*, that is, the human dimension, since:

Social conditions (organization and structure of human society and its artificial environment) affect both the natural environment and the quality of human experience (living conditions and biopsychic state, as the natural environment also affects social conditions and the quality of human experience (DIAS, 2002, p.57).

In these extensions it is possible to find the occurrence of the extreme effects of global climate change that has been generated by human interaction in the environment, which affects the existence of peoples and all life forms, because "these influences, produced inadvertently or purposely, have created and will create dramatic global changes that will alter human existence for a long time" (CARVALHO, 2011, p.29). This teaching is understood as a warning, directing to know that nature is not infinite and there are no ways to return it because peoples cannot claim, now or in the future, ignorance about its practices that interfere in the perpetuation of life on Earth (CARVALHO, 2011).

Given this elastic flow of human action, there is natural survival among species, the human being is the only one that destroys its own habitat even though it is aware that take risks through its decisions. In the space of this involvement on Earth, the extreme effects of global climate change that are at least terrifying must be demonstrated, and which offers impacts and risks in "huge magnitude, high probability or irreversibility of impact; time of impacts; persistent vulnerability or exposure that contributes to the risk or potential limit to reduce risk through adaptation or mitigation" IPCC, 2014).

In this sense, and through the 2012 Special Report on Risks of Extreme Events and Disasters to Advance Climate Adaptation by the Intergovernmental Panel on Climate Change (IPCC), it is brought that the scope on exposure, the extreme vulnerability caused by climate

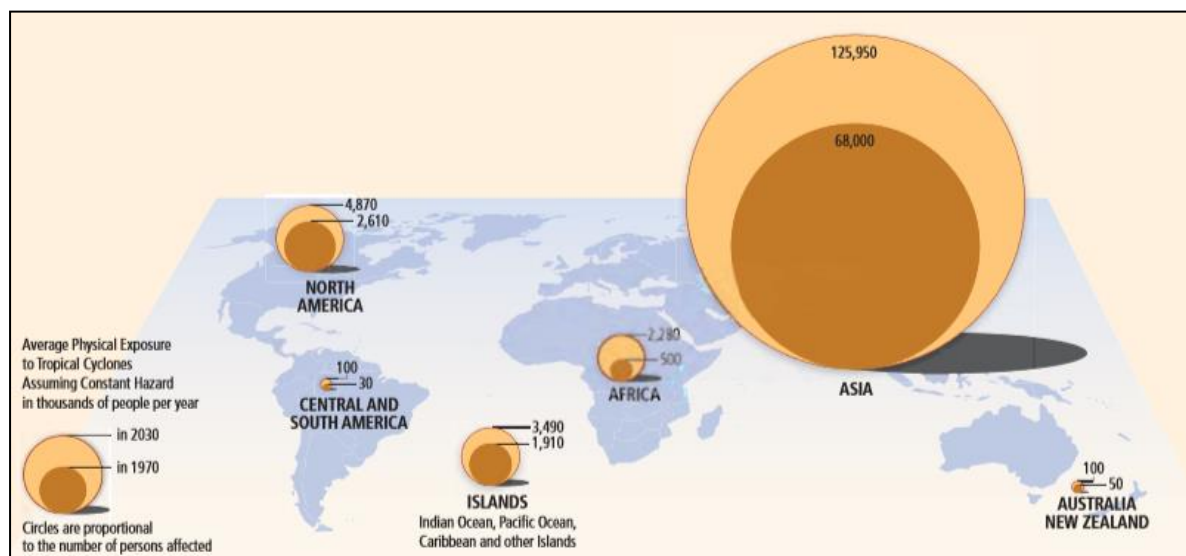




events and the likelihood of disaster risks in the natural and human sphere on a global scale, they understand the difference between climate change and its adverse effects, being considered as a crucial point of literature, causing scholars to use the appropriate language for each type of phenomenon, as an example, to mitigate the effects of these contexts, and not natural phenomena! It also exposes the importance of sustainable development in these scenarios to contribute to scientific approaches to sustainable management to reduce risks and increase resilience where they cannot be eliminated (IPCC, 2012).

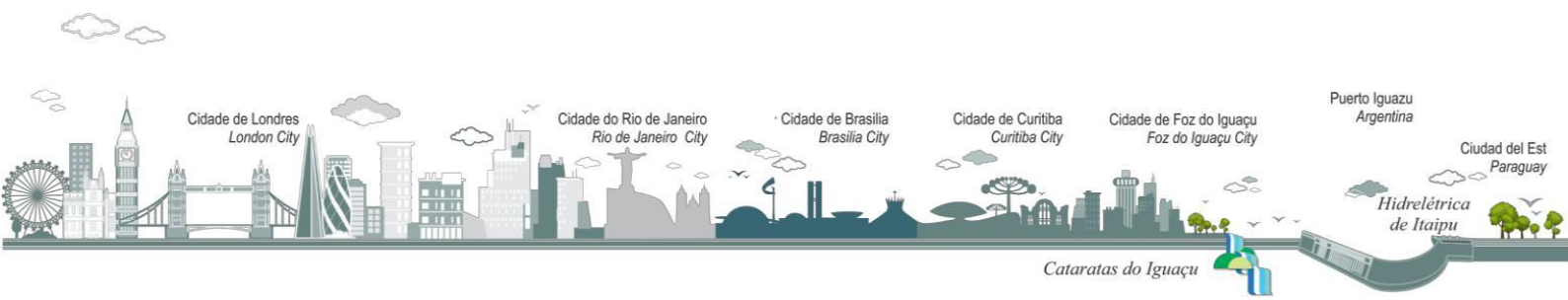
Thus, climate mitigation is essential for all individuals in the face of the dispute for natural resources, being possible to demonstrate the dangers arising from the flooding of rivers and floods as dangers of the extreme effects of global climate change, as shown in Figure 1, which follows:

Figure 1 – Trends observed and projected on human exposure: tropical cyclones and floods



Source: IPCC (2012).

Through analysis of Figure 1, it is possible to identify the mean physical exposition to tropical cyclones assuming constant risk in millions of people per year and can understand the scale of its impacts in 1970 and in 2030, and not the period between this time. For this, the following factors should be considered: better access to information, greater population exposure, greater vulnerability, frequency and/or intensity of hazards.

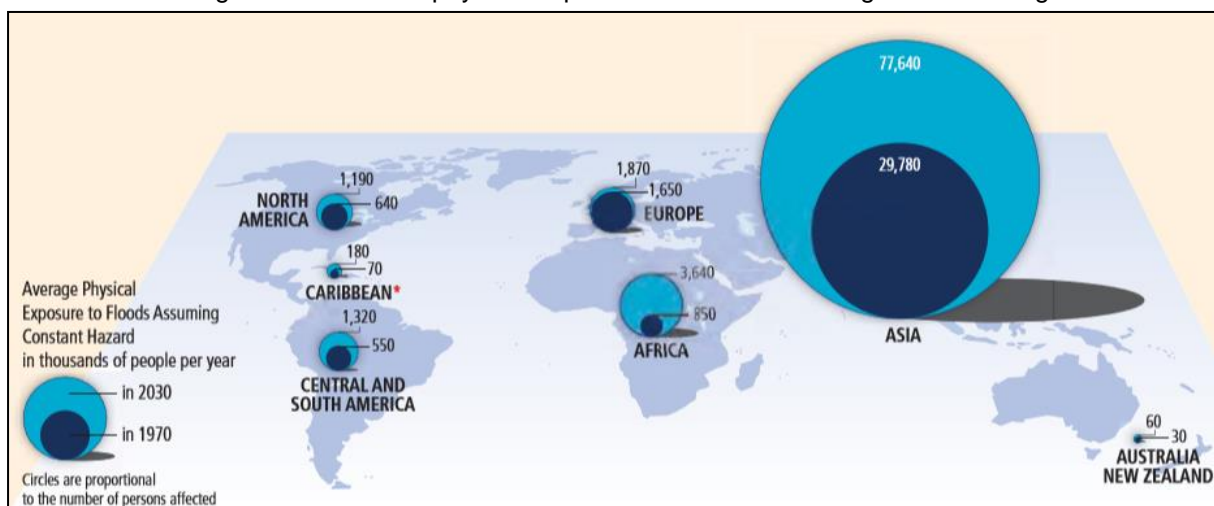




Considering the uncertainties manufactured by the role of each of these four possible factors, the vulnerability analysis of the disaster risk trend could not be performed with a cohesive background because the international databases are not standardized, resulting in scattered and divergent information that hinders access to information, implying that global actors assume economic risks, environmental and social issues (IPCC, 2012, p.240-241).

In fact, in this time relationship there is a need to disclose an overview of the average physical exposure resulting from floods caused by proportionally constant hazards per year, whose records are respective only to places with territory greater than 1,000 km², as shown in Figure 2 below:

Figure 2 – "Medium physical exposure to floods assuming constant danger"

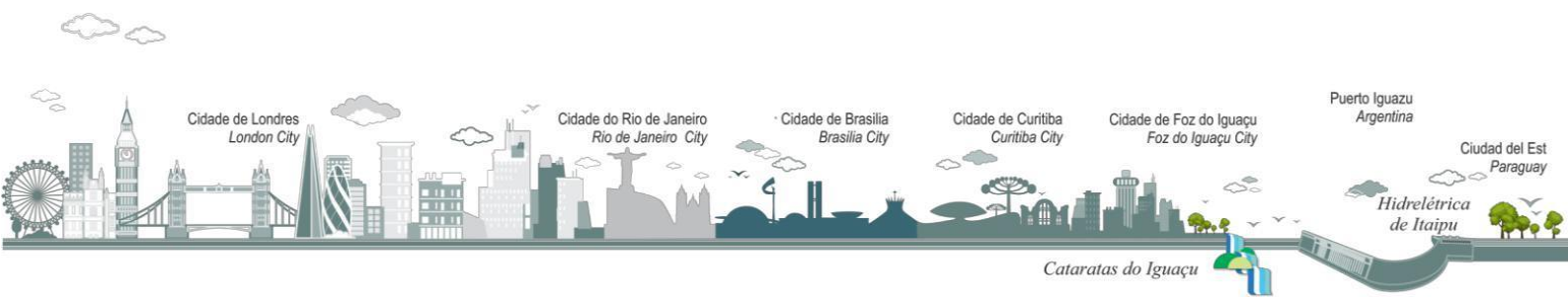


Source: IPCC (2012).

Comprehending the Figure 2, we bring the aspects of these affectations based on the exposures of peoples and the environment on vulnerability to extreme climatic events in each region.

Africa

In the African context, controls on economic development routines based on agriculture and grazing and water resources are now achieved at all demonstrated scales. Floods and droughts tend to cause greater human and environmental impacts, especially regarding poor poverty, health, education, and governance, which are reflected in limited scientific conditions





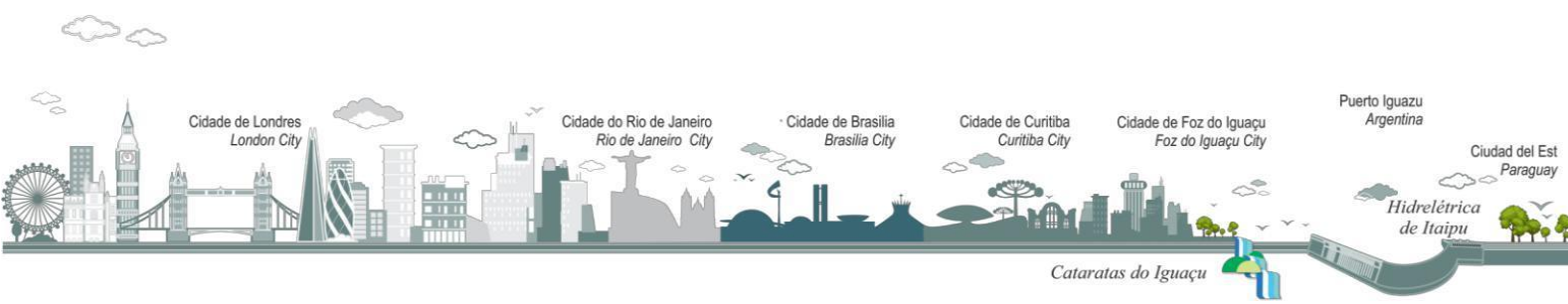
in this region in relation to the projections of extreme vulnerability impacts. In the occurrence of droughts, the impacts are direct: hunger, misery, and salinization of the land; and indirect: frequent epidemics. On the other hand, the water issue during droughts, infrastructure becomes limited due to few economic resources to implement reservoirs, lakes and monitoring of precipitation and variability of time, causing ecological stress with 25% of the African population sensitive to drought, and 69% with relative abundance of access to water resources (IPCC, 2012, p. 253-254).

In the African tropical region, the insistent precipitation tends to generate landslides and debris movements in the mountainous regions. In the arid and semi-arid regions, extreme rains have intensified epidemics such as malaria, dengue, cholera, fever, and lung syndromes. With the climatic variability in the Sahara Desert, the spread of these diseases will be potentiated. Consequently, there is the expectation of the reduction of tourism, fishing and agriculture practices, the absence of climate monitoring systems for alerts and their care, especially in port regions affected by extreme storms (IPCC, 2012, p.253-254).

Asia

In the Asian coastal region, there are large proportions of floods and increased population exposure in urban areas, alternating this situation due to heat waves and heavy precipitation, whose branches expand to physical, natural and human systems. In order to avoid these impacts, governance remains to evolve for the development of essential programs for monitoring extreme tropical climate events. The most extreme floods occur after the passage of El Niño, a period in which losses in China increase in relation to changes in rainfall and floods since 1987, in which its consequences have affected health in urban areas by the spread of epidemics. When dealing with the vulnerable, the frequency of epidemics in countries, low- and middle-income countries tend to face crises of human infection after floods, such as cholera, cryptosporidiosis, and typhoid (IPCC, 2012, p.254-255).

El Niño is linked to drought situations, where 93% of this influence in Indonesia between 1830 and 1953 took place during the El Niño incidence period. Between 1973 and 1992, the average rainfall imports 67% from annual agricultural irrigation, causing an approximate 50% drop in the financial resources obtained by these practices. Thus, there is insufficient





precipitation; high evapotranspiration; and excessive exploitation of water resources (IPCC, 2012, p. 254-255).

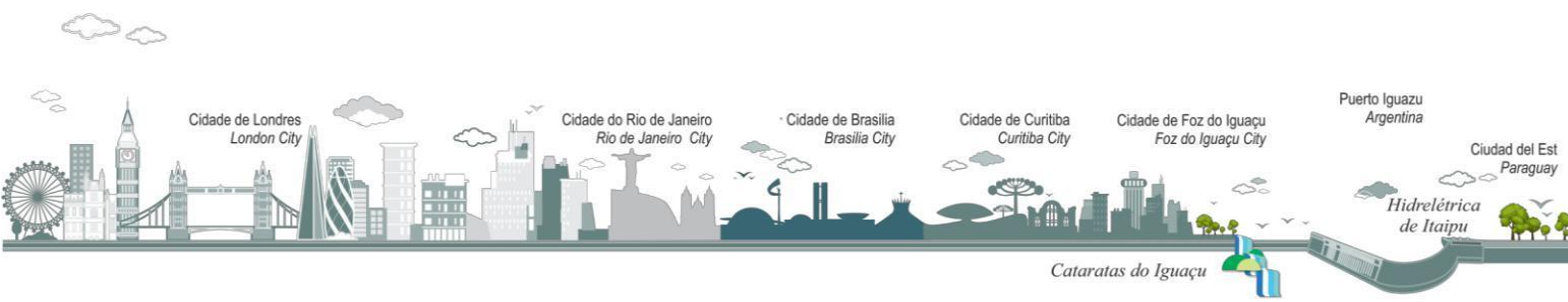
The distribution of these risks is concentrated in India, Bangladesh and China, whose human and economic losses are considered as the main potential extreme effects, in which their regional projection is limited, but adaptation reduces these risks. In the Asian intertropical area, there is a propensity for frequent storms interspersed with rising sea levels, and typhoons have impacts on their topography. Furthermore, in the drainage and production of rice in Asian wetlands that provide natural resources, they are susceptible to droughts and fires. Extreme temperature increases generate warmer days/nights with duration, frequency and/or intensity of heat wave in settlements and informal structures to be more exposed, for example, agricultural regions in rice production being impacted by more extreme temperatures at the time of pollination, mainly, East India and Cambodia (IPCC, 2012, p. 253-254).

South and Central America

There is low confidence in the changes in rainfall that generate disasters, whose drought projections in South America are due to frequent forest fires with a 60% increase over the 3°C increase in temperature. Central America, on the other hand, is a potential region vulnerable to hurricanes and tropical storms, with tropical Atlantic Basin hurricanes such as Hurricane Mitch one of the most damaging to Honduras, whose loss was 95% of its GDP. For these regions, the increase in population and assets at risk are the main reasons for impacts (IPCC, 2012, p.255-256).

Europe

For the European scenario, high population density, high life expectancy and the fall in infant mortality demonstrate that exposed vulnerability has become the subject of resolutions, policies implementation, regulations, prevention, and risk management. There are heat islands because of urban growth, whose aspects of civil construction, emissions of polluting gases and the loss of urban green areas are generating large-scale impacts for people with special needs, the elderly and the sick. Thus, high summer temperatures in urban areas become common





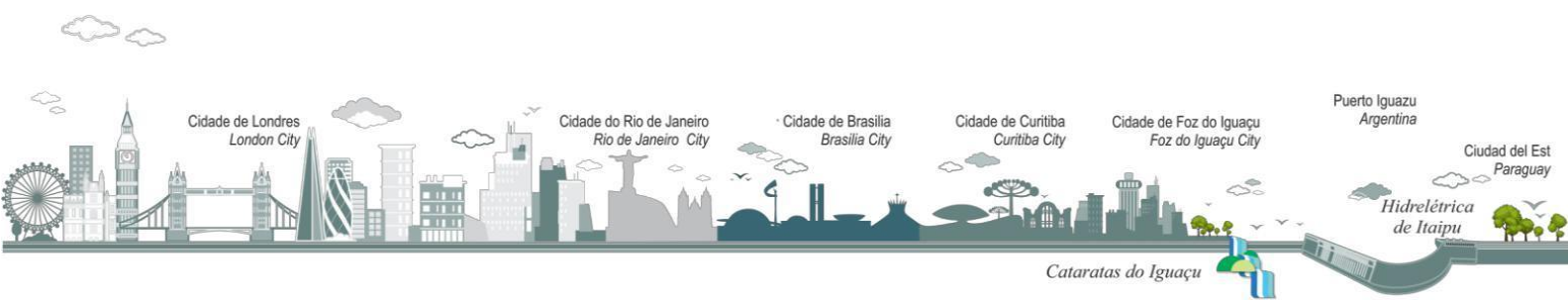
place while there is temperature monitoring, whose adaptation conditions are likely, and have eased human mortality due to this scenario (IPCC, 2012, p.256-258).

In Mediterranean countries, droughts can generate major economic losses greater than floods and earthquakes, with material losses of \$4.5 billion and affecting 6 million people. The most intense consequence to humans is pointed out in semi-arid regions where there is low access to water, and it is important to adapt to droughts regarding municipal, industrial and agricultural demands. Furthermore, the impacts on hydroelectric power generation, tourism, forestry and terrestrial and aquatic ecosystems will be direct due to droughts. As a result, there will be frequent fires in Central Europe and the Mediterranean with the intensification of droughts. In coastal regions, floods are considered as high potential for economic damage to infrastructure, soil erosion and migration, for which adaptation tends to be more challenging in places with high emission of polluting gases. The greatest economic loss is related to floods with high risk of fatality in urbanized areas, and in the winter tourism sector the losses are related to the risks of increased avalanches (IPCC, 2012, p.256-258).

North America

The probability related to heat waves are between medium and high confidence in the projection and trend of impacts on agriculture, health, natural systems, electrical and atmospheric, importing in conditions of reduction of corn production and grain stock. Projections about drought and fires have a medium scale of confidence. There is the reason for the exposure and vulnerability of these ecosystems to fires that are consequences of the increase in temperature, indicating the reduction of the capacity to comply with environmental agreements, destruction of properties, air pollution, respiratory diseases, destruction of infrastructure models and transport with the reduction of tourism in regions where there is still the predominance of forests, which can also be affected by high rainfall and flooding (IPCC, 2012, p. 258-259).

There is high confidence in projections and trends for the continued rise in sea level, generating erosions, floods, and hurricanes in the coastal zone with greater frequency and intensity. The most vulnerable situation on this subject is the population increase, falling property prices on the Gulf coast and the Atlantic in the United States, which the uncertainties





are associated with tropical and extratropical changes do not mean the decrease in these effects (IPCC, 2012, p.259-260).

Oceania

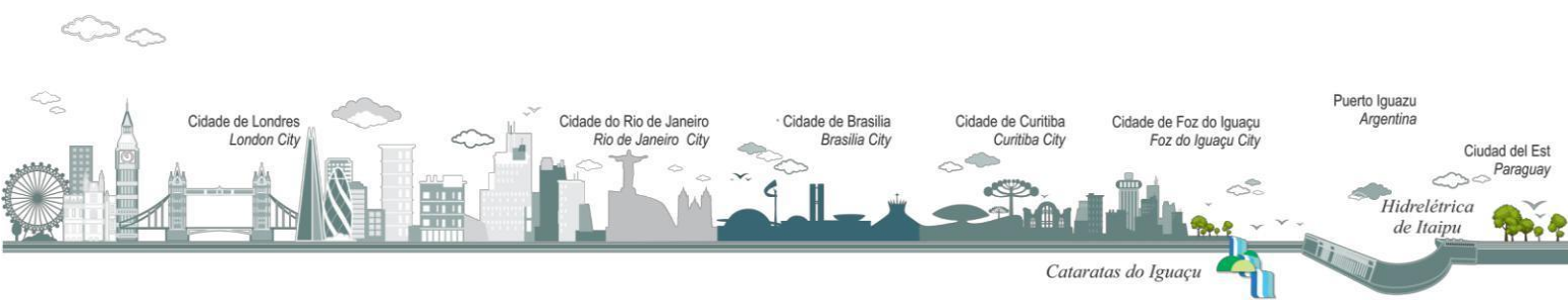
In this region there are several small islands that will be treated separately from the situation in Australia and New Zealand, where extreme weather events are related in 87% in economic losses arising from storms, floods, cyclones, earthquakes, fires and landslides. The extreme increase in temperature is the reason for the increase in mortality of people between 4,300 and 6,300 cities per year in 250 in places where there is high emission of polluting gases, and the estimated average increase of 129% in mortality of people over 65 years until 2100. In cities with temperate climate, it is expected to increase in temperature between 1°C and 3°C, in which mortality will be higher due to heat to tropical climatic events. The damage from drought in Australia is worrisome, mainly in relation to the environmental safety of water resources, as water is widely used in agriculture. Considering that New Zealand is very dependent on agriculture, droughts mean a great possibility of breaking up industries in this sector, where El Niño impacts severe conditions in hydroelectric power plants by low rainfall, resulting in the use of fossil fuels for energy generation (IPCC, 2012, p.260-261).

In New Zealand, the drop in rainfall has low and medium confidence in the projection of floods to agriculture and urban areas. In the incidence of high precipitation, there are chances of large erosions, landslides, and destruction of dikes to contain the advance of sea level. In Australia, more than 80% of the population resides in the coastal zone, with 500,000 residents living at just 5 meters above sea level, resulting in higher flood risks, with twice as many storms expected by 2050 (IPCC, 2012, p. 260-261).

Oceans

The size of the oceans is used as a comparison to the crucial role of the atmosphere, especially in terms of heat waves and chemical impacts, the triggers of which have repercussions on the warming of ocean surfaces in cascade effect of physical reactions, such as the acidification of the oceans due to CO² released into the atmosphere and the reduction of oxygen in the oceans due to the extreme vulnerability of ocean systems to gases and their physical impacts, which are

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multipliers of risks to ecosystems and biodiversity (IPCC, 2012, p. 261).

Polar Regions

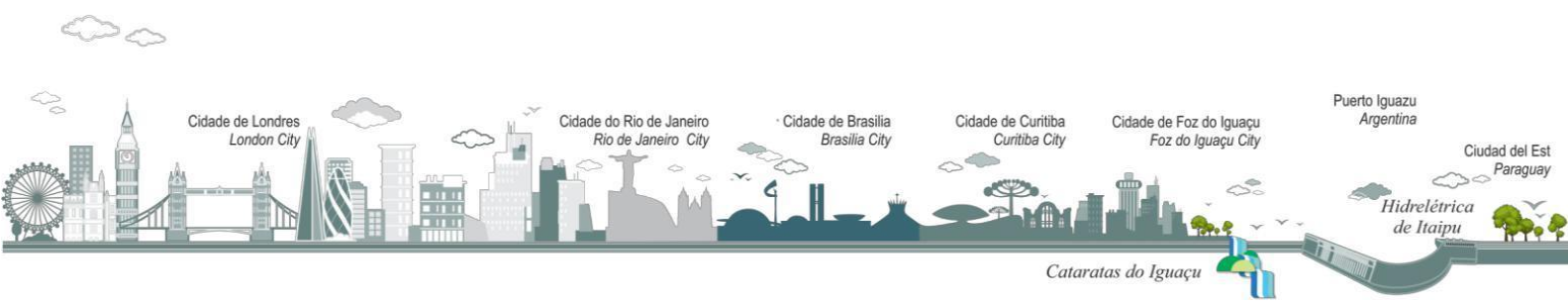
There is low projection of impacts on human life in this region, but with the increase in temperature there is the incidence of hazards to local vegetation and maritime flow during winter to spring, impacting the distribution and diversity of species. The probability of flooding has as source heavy precipitation and combination of rain with snow. Thus, melting snow and rain are considered as frequent hazards responsible for 80% of arctic flooding. Furthermore, this situation also depends on the duration of exposure of living systems to these conditions (IPCC, 2012, p. 262-263).

In the Arctic coastal zone, erosion is a significant problem, contributing to the continued melting of ice, rising sea levels and strong storms associated with ocean waves. This resonates in the alterity of the Arctic landscape, in freshwater habitats in local communities with cultural disappearance by impacts on villages and coastal towns. The degradation of *permafrost* has intensified arctic soil erosion between 2 and 4 meters per year (IPCC, 2012, p. 262-263).

On the Antarctic peninsula, the extent and duration of ice in contrast to rising ocean temperatures can impact energy resources and food availability for many trophic levels, decreased reproductive success, lower abundances, and changes in the distribution of natural resources (IPCC, p. 262-263).

Small Island States

In these states, considered as the small islands in the Pacific, Indian and Atlantic Oceans, are identified as the most vulnerable areas affected by the extreme effects of global climate change. This is due to the low adaptability, with substantial risks in generating losses in reducing the size of these islands, their infrastructure, communities, and urban areas. The extreme increase in temperature in the Caribbean is considered a record because of 80% bleaching of marine corals, and with 40% of them already lifeless, often, and severely impacted and compromised by the stress generated to this ecosystem (IPCC, 2012, p.263).





Island States in the Pacific Ocean

Considering the extreme vulnerability of island countries in the Pacific to be highlighted, one is the category of their affectations and characteristics, according to Table 1 below:

Table 1 – Pacific Island Types and Exposure to Extreme Weather Events

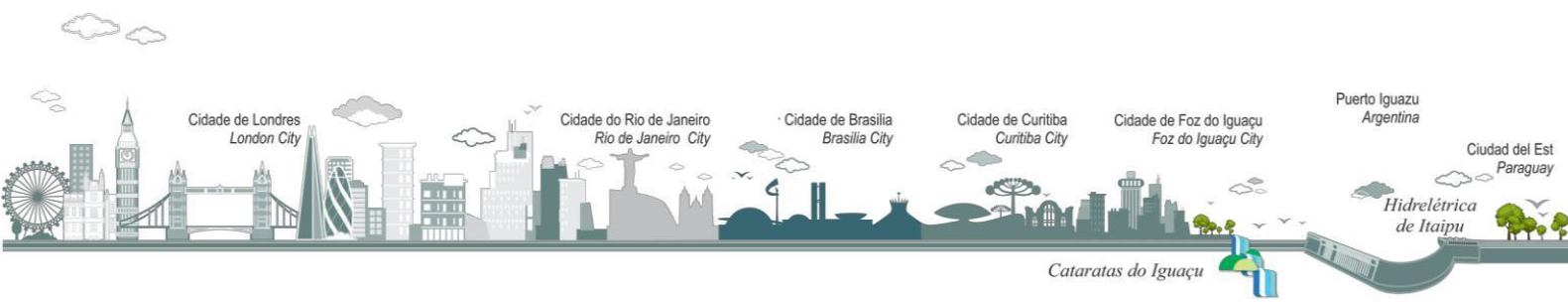
Island Type	Exposure to climate risks
Islands between plate boundary: large areas of land, elevated areas, high biodiversity, well-developed soils, river flood plains and orographic rainfall.	These islands are in the western Pacific. River flooding is more likely to be a problem than in other island types. In Papua New Guinea, elevated areas expose el Niño. Most major settlements are on the coast and exposed to storm damage.
High oceanic and volcanic islands within plates: Steep slopes at different stages of erosion, barrier reefs, relatively small areas, less well-developed river systems and orographic rains.	The size of these areas causes them to be more impacted by tropical cyclones, which cause the most damage in coastal areas. Streams and rivers are subject to flooding in. Most islands are exposed to drought. Coral barrier reefs can improve the surge of storms and tsunamis.
Atolls: very small areas of land with very low elevations, no or minimal soil, small islands surrounding lagoons, coast platform on the windward side, larger small islands on the Windward side, no surface fresh water and conventional precipitation.	Very small areas of land, very low elevations, no or minimal soil, small islets surround a pond, shore platform on the windward side, larger islets on the Windward side, no surface fresh water, Ghyben Herzberg effect freshwater lens and conventional precipitation.
Limestone islands: steep outer slopes, concave inner basin, sharp relief topography, narrow coastal plains, no surface water and no minimal soil.	Depending on the height these islands can be exposed to storm surges and cyclone waves. They are exposed to freshwater scarcity and drought incidence. Freshwater problems can lead to health problems.

Source: Made by the authors, based on IPCC (2012, p. 263).

In addition, from above, the following Goals are the product of the Post-2015 Agenda:

Strategic goal 1. Strengthening global monitoring, analysis, and coordination of the implementation of the Sendai Framework. 1.1 Global progress with the Sendai Framework related to the Sustainable Development Goals. 1.2 Global risk data, analysis and policy advice. 1.3 Global coordination and *accountability* of the mechanisms called. **Strategic Objective 2. Regional and national support for the implementation of the Sendai Framework.** 2.1 Regional and national coordination mechanisms leveraged to monitor and accelerate the structure of the Sendai Framework. 2.2 National disaster risk reduction strategies and plans developed in line with the guidance prescribed by the Sendai Framework. 2.3 Capacity to build counterparties and partners for leadership in Disaster Risk Reduction. **Strategic Objective 3. Catalyze action across Member States and partners.** 3.1 Promoting policy coherence involving Member States and

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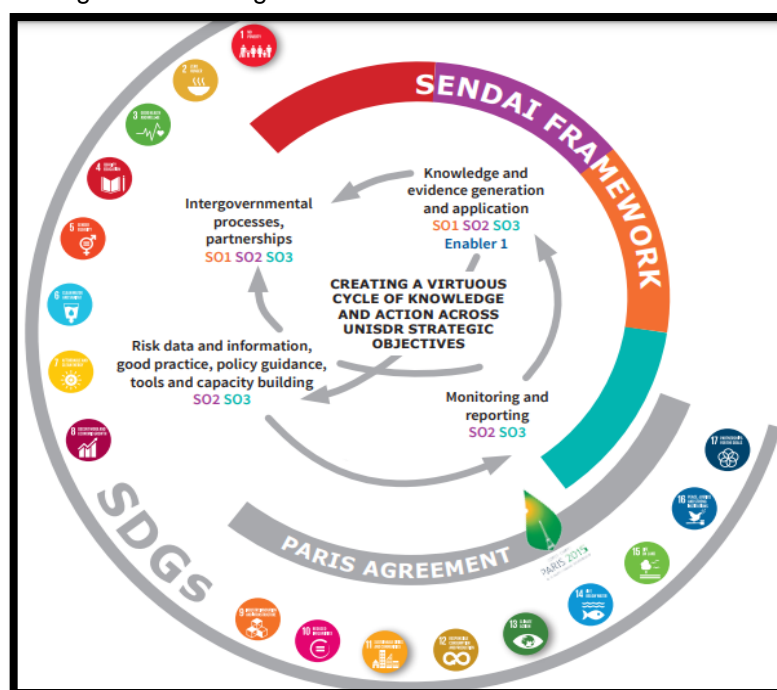




contributing to relevant intergovernmental processes. 3.2 Coordination and advice provided to UN partners globally for effective and efficient implementation of the Sendai Framework. 3.3 All engagement and action of society in promoting the strengthening of partnerships with key stakeholders. 3.4 Leveraged partnerships for greater disaster risk reduction funding and sensitive investment (Translation by authors UNDRR, 2015, p. 06, italic ours).

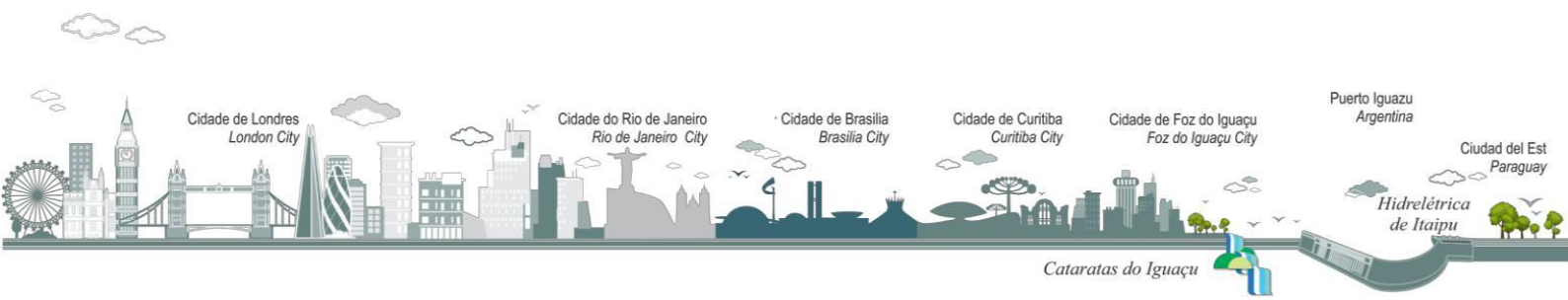
For this purpose, prevention by reducing the risk of existing disasters and strengthening resilience by success would be implemented by implementing the Strategic Framework of the Sendai Framework for Disaster Risk Reduction 2016-2021, outlined below, as shown in Figure 3:

Figure 3 – Strategic Framework on Disaster Risk Reduction



Source: Translated by the authors, based on: United Nations Office for Disaster Risk Reduction. (2015, p. 5).

Considering it, there are different population layers and social development processes, norms, projects, and ideals can be inserted that ensure the continuity of human life in the face of these occurrences, if they aim at intergenerational sustainability. However, this transformation would occur through a colossal human effort to manage risks, in the effective performance of international actors and the conscious participation of citizens in decision-





making, mitigation and coping with the risks encountered.

In this context, it is essential to effectively protect vulnerable peoples against the power of states in the contexts of universality and transnationality, considering that those who migrate would need to have recognized their dignity as the human person (THEODORO; RAMALHO, 2016). Therefore, the complexity of multiculturalism, of expositions, of vulnerabilities, of inequalities in the application of rights to the unfolding of human dimensions demonstrates that "the original spirit of modern democracy was not, therefore, the defense of the poor people against the rich minority, but rather the defense of wealthy owners against a regime of state privileges and an irresponsible government (COMPARATO, 2007).

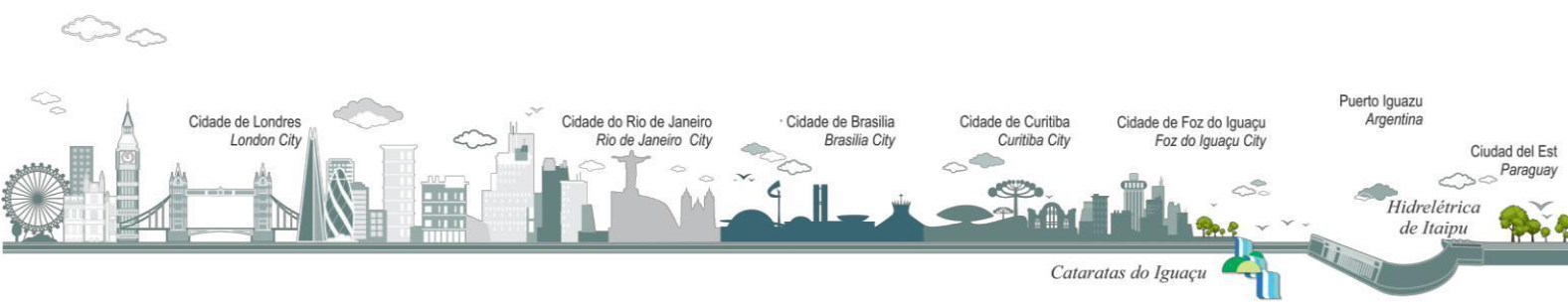
In this sense, human rights come to include the situations demonstrated by the IPCC reports, because it is possible to map human irresponsibility in the use and dispute of natural resources and their effects. So, it is understood that the integration of this rights can provide the advancement and solidification of global strategies and plans for the realization of human rights in the extensions that the risks of environmental activities will reach vulnerable peoples.

SOCIO-ENVIRONMENTAL RISKS AND HUMAN RIGHTS

The interference of the relationship between global actors, the current mode of social processes and their interference in the environment can increase the global climate events exposed, and therefore it is important to highlight the risks that extend these situations (DUPAS, 2005). It such as:

Risks, the way they are produced in the most advanced stage of the development of productive forces. 2) The distribution and increase of risks, social *situations arise of threat*. 3) Risks of modernization 4) Wealth possessed in civilizing terms and 5) Socially known risks [...] around deforestation, contains a peculiar explosive political ingredient [...] the fight against causes in the industrialization process itself (BECK, 2011, p.27-28).

The different risks mentioned, according to IPCC (2014), come to leave a greater degree of affectation people "socially, economically, culturally, politically, institutionally or otherwise are especially vulnerable to climate change, and also to some adaptation and mitigation responses" in the exposure of ecosystems and many human systems as evidenced





above.

With this, the level between the progress and protection of these systems can no longer be accepted as something normal, nor that it satisfies only those most financially provided or affects the environment just because it is easily exploited. In this scenario, the man is held hostage of himself, where the "only really effective protection under these conditions would be not to eat, not to drink, not to breathe" (ZULAUF, 2000, p.85-100). Thus, if there is no balance in the relationship between the population and its demands, the Rio Declaration of 1992 is brought, which provides in its 8th Principle that:

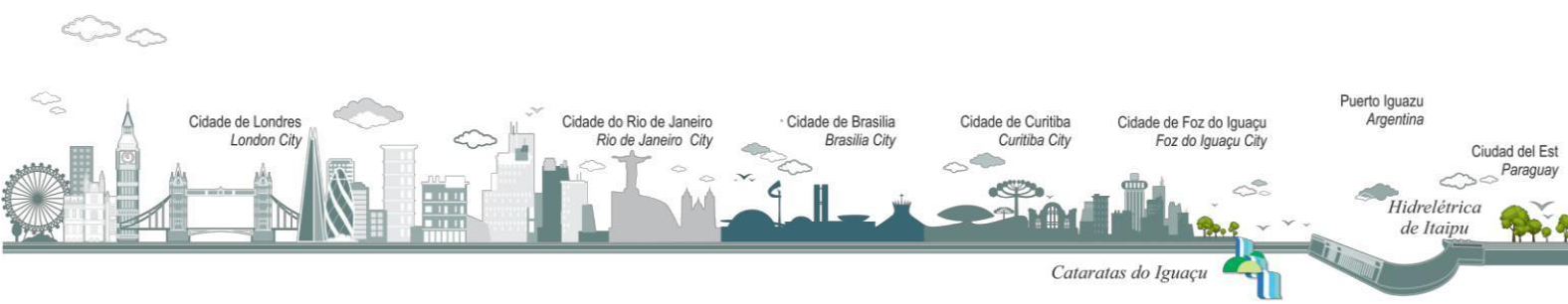
[...] To achieve sustainable development and a higher quality of life for all, States must reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies (UN, 1992, p. 02).

Furthermore, such inequation does not provide resilience, given that the ambition of the wealthiest people tends to increase (CARVALHO, 2011). So, without understanding the patterns of high consumption *versus* high population density one can does not find sustainable forms of survival, where "a position considered to solve this equation would be integrated birth control as a program of modifications of the socioeconomic structures of each country" (CARVALHO, 2011, p. 547), whose implications directly reflect in the game of the unsustainable interests of global actors.

Therefore, it is extracted from the Stockholm Declaration of 1972, in its principle 1, to remember that it is possible to identify a way to mitigate these occurrences, the forms of international policies "that promote or perpetuate apartheid, racial segregation, discrimination, colonial oppression and other forms of oppression and foreign domination are condemned and must be eliminated ", especially in the incidence of extreme climate vulnerability (UN, 1972).

Deeply, the interaction between the various species has not been enabling preservation, but the destruction of individuals by natural selection⁴ in physical conditions of life. Thus, the degree of uncertainty for decision-making occurs usefully to complexity by survival, because, instead of doubting the human capacity to have greater chances to bear, it tends to be more harmful to the ecosystem context and, consequently, affects the human being constantly (DARWIN, 1861).

⁴ Institute of Biosciences. University of São Paulo. Natural selection. "Natural selection is one of the basic mechanisms of evolution, along with mutation, migration and genetic drift." Available in: <www.ib.usp.br/evosite/evo101/IIIENaturalSelection.shtml> Access in: 28 jul. 2017.





Considering these circumstances, even if they may occur where there is a life available, this reasoning extends to the right to life, because:

[...] the scope of the United Nations Covenant on Civil and Political Rights, consolidated the understanding that the right to life encompasses the full exercise of civil, political, economic, social, and cultural rights to all individuals, peoples, ethnicities, collectivities, and human groups. In this perspective, the right to access to the healthy environment is consolidated as an extension of the right to life [...] (MAZZUOLI; TEIXEIRA, 2013, p. 08).

In this sense, without the integration of rights with public freedoms, it would not be possible to achieve progress in the implementation of human rights and effective international development policies. For this perspective, the United Nations - UN has developed with great sensibility of the 2030 Agenda that brings the 17 Global Sustainable Development Goals, with emphasis on vulnerable peoples, in which, in the case under study, Goal 16 instructs: "Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all and building effective institutions, accountable and inclusive at all levels" (UN, 2015, p. 15).

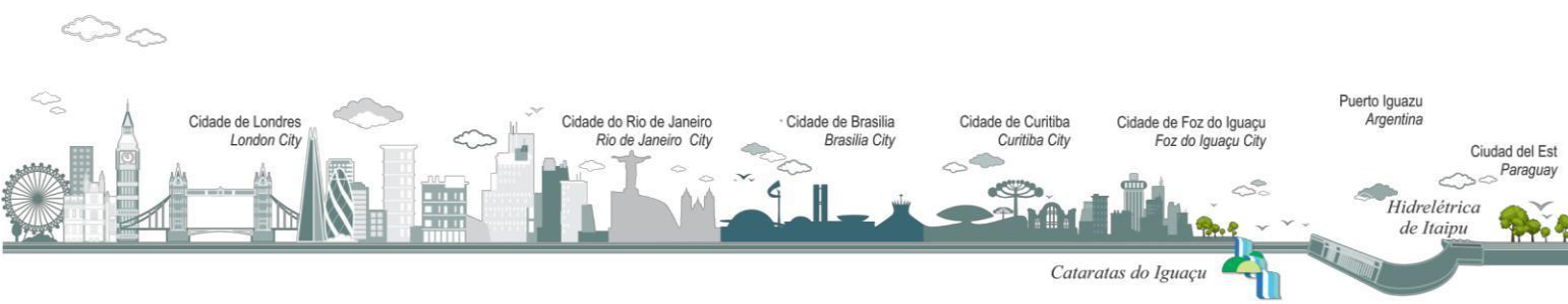
However, under the absence of adoption of these strategies in the contexts demonstrated, risks that cannot be perceived as a danger may be considered invisible threats, but when they are perceived will be given as concrete risks to the global contemporary *modus vivendi* (BECK, 2011).

On this development, men tend to share and live in the same space. So, from the current way of fighting for survival, the "problems that go through Humanity have forced a legal framework to institutionalize social responsibility through declarations, pacts and creation of organizations" ([Free translation]; VELASQUEZ; D'ARMAS, 2015).

Given the possibility of this scenario being willing to Humanity, Araújo, Bizawu and Leister (2015) understand that to achieve these human needs must consider the rights inherent to citizens through equality to guarantee human existence because:

Human Rights are responsible for the possibility of guaranteeing the existential minimum, and, acting in the face of an inevitable international intervention, also include a series of considerations intrinsic to the human person, without distinction of race, nationality, ethnicity, sex, language, religion or other category, (...) since they are inherent rights to existence (ARAÚJO; BIZAWU; LEISTER, 2015, p. 08).

Furthermore, it is highlighted that regulations relating to the protection of the environment and human rights "are adopted, and obligations for this purpose are assumed, in





the best common interest of humanity. This has been expressly recognized in some treaties in the field of the environment (AMORIM, 2015). Consequently, it is appropriate to point out that the extent s of the extreme effects of global climate change on the human dimension are considered as concerns to humanity, regardless of respect, in promoting and considering human rights, as provided for in the Paris Agreement (UN, 2015):

Recognizing that climate change is a common concern of humanity, the Parties should, in taking measures to combat climate change, respect, promote and consider their respective human rights obligations, the right to health, the rights of indigenous peoples, local communities, migrants, children, people with disabilities and persons in vulnerable situations, the right to development, as well as gender equality, women's empowerment and intergenerational equality (UN, 2015, p. 27).

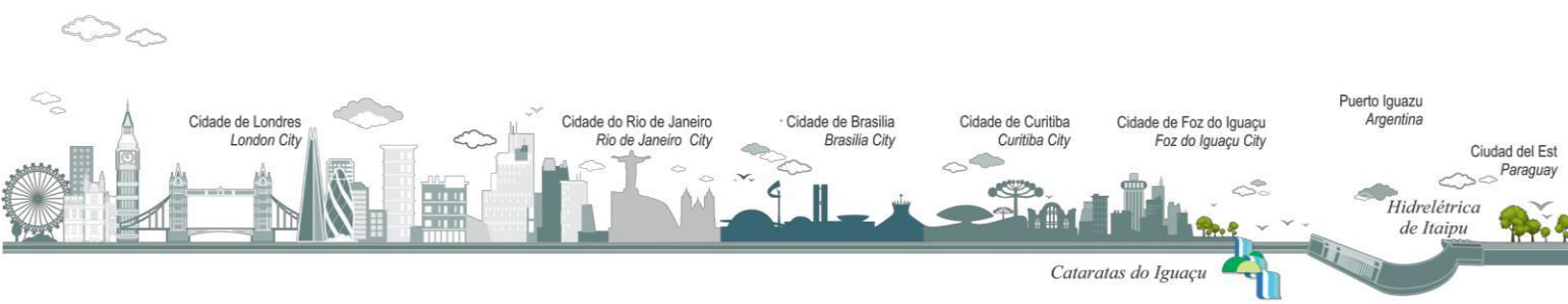
Through this recognition, it is perceived that social and economic rights have ceased to lead societies and peoples to a new destiny, and that " the holder of these rights, in fact, is not the abstract human being, with capitalism has always lived ... It is the whole of social groups crushed by poverty, disease, hunger, and marginalization (COMPARATO, 2007).

Rawls (2001) considers that one way to provide social justice would be to secure the necessary assets of life through the empowerment of rights and faculties:

[...] from a constitutional regime; giving these rights, freedoms, and opportunities a special priority, especially regarding the requirements of the values of the general good and perfectionism, and to ensure that all citizens have the primary assets necessary to enable them to make intelligent and effective use of their freedoms (RAWLS, 2001, p. 18-19).

With the breadth in the disposition of public freedoms and rights, some reactions of these interactions emerged in a dimension disproportionate to the human cognitive capacity to respond to the demonstrated world disorder, whose resulting occurrences reach, in an unrestricted way, a very high amount of the world population, causing transgenerational, cross-border and socio-environmental risks.

Although the actions of states are not effective in these platforms, there is complete affectation of human dimensions, regardless of whether there is a minimum global consensus in the resolution of the conflicts of humanity in the environment, aiming to find a new model of cooperative experience, with a shared communication, made by sustainable and conscious attitudes, through solid, fruitful, and supportive development plans.





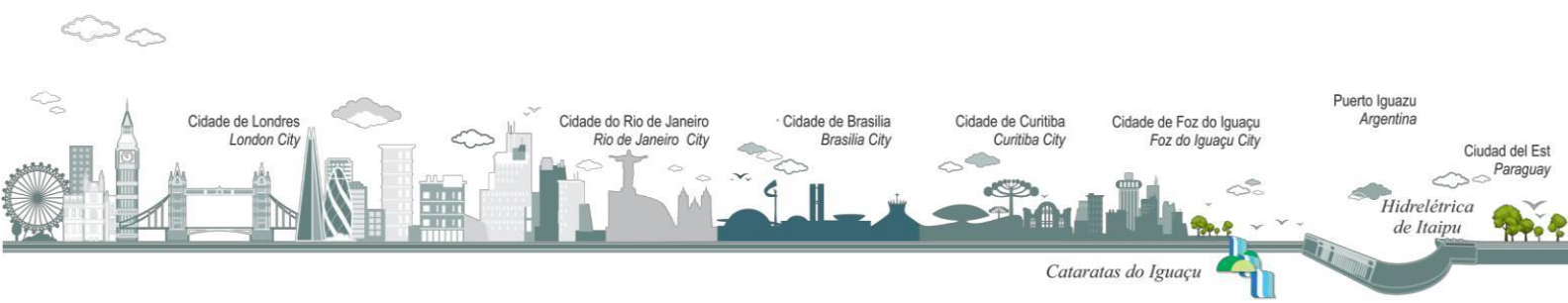
FINAL CONSIDERATIONS

In understanding the factors of the human dimension that intervene in nature before Gaia encompass sociobiodiversity with earth as a way of life, it is revealed that the human species is reciprocally dependent on natural resources to other species, whose disrespect demonstrates the interference of global actors in their life flows and ecosystems. The connection of this dependence goes beyond the normative and universal character, extending to the naturalness of rights intrinsically to the existence of peoples in the scenario of socio-environmental risks. In the embarkation of differences and human needs are these risks, which are essential to the interaction of men in the environment, because of it is not about the dispute for territories, but of that for natural resources between those who remain alive in the international dispute.

With the unequal distribution of resources and the lack of fair and redistributive states, there is difficulty for peoples to interact with each other to meet contemporary global socio-environmental demands. This is achieved because the perpetuation of inequalities and exposures of peoples and ecosystems vulnerable to direct experimentation with socio-environmental risks, causing irreparable losses of the environment. The inculcation between high consumption and high population density does not dissolve transnational conflicts, it does not politicize global actors, which promotes anthropocentrism, whose practices exclude jusnaturalism in relations to protect the protection of the environment and human rights.

This validates the world disorder without the vocation for sustainability, which destabilizes the structures of public freedoms, impacts all peoples, especially the vulnerable, generates environmental damage, causing clandestine migratory escapes caused by human delusions in the face of the flawed hegemonic economic system, capitalism, and greater complexities in the face of ethnic-historical intolerances.

These factors are integrated by the conflicts of sovereignty *versus* the principle of Solidarity, the unequal distribution of resources for access to information, the absence of public participation in the decision-making process and the lack of access to climate justice, exclude the resilience and equity of implementing the strengthening of institutions at all levels, moving away from the implementation of sustainability without establishing peace in the human





dimension and its extents. Finally, it is contact that human frustration in the 21st century is not having found socio-environmental happiness, because the human being is the natural actor in the world trying to be conscious own by own forces and their systems, being a fragile combatant in the reactions generated over time made by legal structures, human, ecological and sentimental in disintegration.

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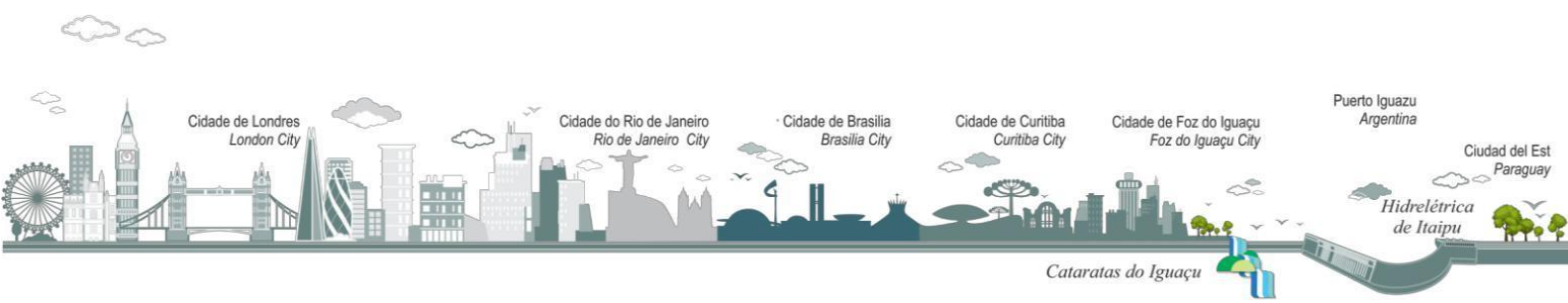
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