International Journal of Humanities and Social Science Invention
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org ||Volume 5 Issue 9||September. 2016 || PP.63-72

Confronting Climate Change: Cooperation between States, International Regimes and Environmental Refugees[1]

Josué Fernández Araya
Willy Soto Acosta

I. INTRODUCTION

This paper attempts to study a global phenomenon that threatens the very life on Earth, climate change and its direct effect on environmental displaced, but from a double perspective: one, from sociology, namely the theory of society risk; and other, typical of the discipline of international relations, the cooperation between States and international regimes.

Perhaps most of the works on climate change comes from the Natural Sciences and few approaches from the Social Sciences. We wanted here to focus the problem from both perspectives. In the field of the latter, and given the complexity of the issue, we turn articulated Sociology with International Relations.

Similarly, in the final part of this essay, instead of listing a series of conclusions, we have chosen to proceed to an assessment of global environmental instruments and protocols.

II. CLIMATE CHANGE AND GLOBAL RISK

1.2. Climate change: nature and human actions.

As evidenced by many authors, especially José María Pernía and Juan Maria Fornes (2008), human actions, mainly in the productive level but not only this, they are bringing from the last century a substantial increase in the concentration of greenhouse gases (GHGs) in the atmosphere. The result, as we know, is an increase in global temperature that is accelerating the process of climate change.

This change is reflected in increases in the average temperatures of air and oceans, widespread melting of ice and snow, and the overall average rise of sea level. And as experts have pointed out, the increase shown since the mid-twentieth century in average temperatures is caused largely by the effects observed in gases anthropogenic greenhouse. Is this alteration of the global climate to which called "climate change" (Pernia and Fornes, 2008).

While it is true, as already mentioned, that the worsening of the current climate change is due to the action of mankind, the phenomenon also has natural causes. These include those of internal origin (endogenous or geological nature) and external (exogenous or astronomical nature) on planet Earth.

Exogenous or external causes are astronomical phenomena that cause imbalances in the climate system and are strongly linked to the dynamics of the Sun, the Earth's orbit, and with the arrival on Earth of celestial bodies. These include:

- Fluctuations in solar activity that generate changes in energy that reaches the earth and can have climatic consequences in the Earth system (case of sunspots).
- Orbital changes of the planet due to three factors, namely electricity on earth; the tilt of Earth's axis; and accuracy of the equinox.
- Impact of celestial bodies (comets, asteroids and meteorites) that crashed into Earth can cause large dust clouds or tidal waves which have in turn might cause the extinction of groups of organisms such as dinosaurs (Pernía and Fornes, 2008: 2-5).

Meanwhile, endogenous or geological causes of climate change are inherent in the planet and are of geological nature. These include the following (Martin Chivelet, 1999, cited by Pernia and Fornes, 2008: 5-8):

- Oceans: Due to the extent they occupy on the surface of the Earth and its little ability to reject solar radiation (effect "albedo"), they absorb most of the solar radiation through the atmosphere. Furthermore, while the oceans are CO2 sinks, especially when the water is cold, as the water warms rather they release CO2 into the atmosphere.

[1] This work is part of the research project: 074-13 "The phenomenon of regional integration in international relations: a theoretical contribution to the discipline from criticism of the coloniality of power and cosmopolitanism" School of International Affairs and Vice Rectory of Research of the National University, Costa Rica.

- Volcanoes: When they erupt, besides incandescent magma, throwing huge amounts of dust, carbon dioxide, and sulfur dioxide in gaseous form into the upper atmosphere (the stratosphere). These emissions of carbon dioxide from volcanic activity is estimated at approximately 250 million tonnes per year, a figure equivalent to 0.8% of the total annual emissions of CO2 that mankind produced as a result of fossil fuel use.
- Movements of lithospheric plates: As we know, these movements determine the distribution of continents and oceans, distribution affecting the climate system, insofar as it affects the amount of solar radiation that can be absorbed by the earth's surface for each latitude.
- Greenhouse gases (GHGs): The gas mixture resulting in the atmosphere allows entry to the Earth's surface of a considerable part of the radiation. This short-wave radiation heats the earth's surface, surface which in turn returns part of the absorbed energy as long wave radiation. This resulting longwave radiation is absorbed by certain atmospheric gases (greenhouse gases), and this phenomenon absorption results in a warming in the atmosphere in their lower layers.

From the above it follows that the greenhouse effect is not an invention of the human race, as there naturally. However, it is clear from the evidence offered by specialists, is that the greenhouse effect is being increased by human activity. To this it contributes particularly the use of fossil fuels (oil, natural gas and coal) (Pernía and Fornes, 2008: 12). The result is an increase in global temperature of the planet, threatening many human activities, and if extreme, life itself.

The gases that produce the greenhouse effect are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and hexafluorocarbonos sulfur (SF6) (Pernía and Fornes, 2008 : 12).

As indicated by Pernia and Fornes, "... concentrations of greenhouse gases in the atmosphere have changed over the history of the Earth by natural causes. However, over the past ten thousand years to the Industrial Revolution, the concentration was relatively normal. From the mid-eighteenth century, GHG emissions began to increase mainly due to uncontrolled consumption of non-renewable energy "sources (2008: 12). Thus, climate change manifests itself in:

- Increase in temperature.
- Significant increase in rainfall.
- Sea level rise due to warming causes seawater to expand, and also to the melting of glacier ice in Greenland, Antarctica and other continents.
- The extent of snow has fallen and mountain glaciers outside the polar regions have been withdrawing.
- Natural disasters: mainly Niño, is heating the upper layer of the equatorial Pacific Ocean east-central. As a result of this hot water accumulation, in turn heats the atmosphere and conditions favoring precipitation are created. One of the most tangible results is not outcrop of deep water, which makes cease the supply of nutrients for phytoplankton, affecting a severe decrease fish stocks in the area. Increasing cyclones it is correlated with the observed heating the surface temperature of the sea in the tropics.
- Reduction of permafrost, is the level at which the ground is permanently frozen. The most serious is that the permafrost stores a huge amount of tons of carbon or methane, and defrosted, it could be released affecting a greater increase in global warming. Those cities built on permafrost are threatened by melting it (Pernía and Fornes, 2008: 16-24).

1.2. The theory of risk society.

The study of global warming and climate change, as well as analysis of the impact of these phenomena in environmental management, has been spring natural scientists and engineers. However, from the social sciences you can address this problem, as explained below.

The German sociologist Ulrich Beck, with his works, mainly "Risk Society" has contributed to a new sociological approach that tries to understand the threats that humanity faces from the last quarter of the twentieth century.The "theory of world risk society" part of a series of premises:

- What characterize today's society are the risks.

But what is a risk? It is a mixture of something actually happens but his potential is frightening part that has not happened but that can happen: In the words of Beck, "... the risks are something unreal. In a central sense, they are real and unreal at the same time. On the one hand, many dangers and destructions are already real: polluted and dying waters, forest destruction, new diseases, etc. Moreover, the real risk of social power argument lies in the projection of threats to the future "(Beck, 1998b: 39).
Beck establishes the following types of risks:

Table 1: Risks and typology

Types of Risks	**Global Risks**
1. Ecological risks caused by	Mega technology nuclear and chemical; genetic research; new information

wealth and technical and industrial hazards.	technologies; artificial intelligence; environmental Threats: such as ozone depletion, climate change and greenhouse; nanotechnology; robotics.
2. Ecological risks conditioned by poverty and technical and industrial hazards.	Growing inequality and pauperization in and out of Western industrial society; environmental damage such as deforestation of the jungle, imported toxic wastes, large obsolete technologies in chemical and atomic.
3. Risks of weapons of mass destruction.	Super Militarization; proliferation of nuclear, chemical, or biological weapons; terrorism.

Source Prepared by Jiménez, 2011: 10, from Beck, 1998: 67-69.

- From the above it follows that the threats are fundamentally ecological, even if they are conditioned by political reasons (nuclear threat, terrorist acts), social (social inequality and misery that leads to an over-exploitation of natural resources), economic (environmental effects on Global Warming, among others, the use of oil, over-exploitation and soil pollution produced by the desire to obtain increasing profits).

In the premises, there is a continuum between nature and society, which means that "... the notion of world risk society is relevant in a world that can be characterized by a loss of clear distinction between nature and culture. If today we speak of nature, we talk about culture, and if we talk about culture, we talk about nature. Our conception of nature and culture as two worlds apart, which is closely linked to modern thought, can´t recognize that we are building, acting and living in a world artificially constructed by civilization whose characteristics are beyond these distinctions that still dominate our way of thinking. The loss of boundaries between these two areas is not only a result of the industrialization of nature and culture, but also the risks that endanger humans, animals and plants the same way. Whether we think fears of ozone depletion, pollution or food, nature is inextricably contaminated by human activity. That is, the common danger has an equalizing effect that reduces the barriers carefully raised between classes, nations, human, and the rest of nature, between creators of culture and creatures of instinct or, to use an old distinction between beings and soulless "(Beck, 2000: 18).

- Those threats, these risks do not belong to a single country or region or one social class but are global, planetary (Beck, 1988 b: 42) .It is, if there is something global, globalization is irrigation, does not respect borders, it is universal par excellence, heritage is not a place but the planet (Beck, 1988 b: 42).
- Corollary to the above, the risks have a boomerang effect, in the sense that they affect not only those who do not produce, is their innocent victims, but also those who directly or indirectly fathered and even those who profit with them (is the insurance industry) (Beck, 1988 b: 43). The most representative of this case is global warming: although its greatest effects are suffered by poor countries and populations most at social and environmental vulnerability, the same industrialized countries and polluting industries also experience the consequences of this phenomenon.
- Risks auto-play: a risk on a plane or dimension generates another risk in another plane or dimension: "The production of modernization risks follows the rotation of the boomerang. Intensive industrial agriculture subsidized with billions grow dramatically makes the lead content in breast milk and children not only in distant cities. In many ways undermines the natural basis of agricultural production: lowers the fertility of the fields, animals and plants disappear necessary for life, increases the risk of soil erosion "(Beck, 1988 b: 43-44).
- Environmental damage has not been caused by nature, but by mankind through science and technology: the use of them, instead of saving humanity, rather threaten to extinguish (Beck, 1988: 65).
- Feedback from damage engendering a "spiral of destruction" occurs: "The environmental damage (example, floods in Blangladesh) can trigger mass migration, which can lead to turn in war. Also other belligerent states threatened by defeat could use, 'in last instance`, destruction of nuclear plants and own and others to threaten the border regions and large cities with the atomic destruction "(Beck, 1988 Chemical: 69).

This "spiral of destruction" is clearly reflected in environmental migration. Displaced by drought, floods, infertility of land, depletion of flora and fauna, pollution of natural resources, go to other places where there are usually other populations (sometimes belonging to other ethnic groups), increasing environmental pressure and ecological damage in the "new" lands; This addition to the conflicts between the local and the "newcomers"). And when it comes to migration between neighboring countries, this tense relations between the neighboring states.

- These risks and fears they produce "unified" humanity, becoming a "global society". This global company is established, first because environmental damage affecting the entire planet, and second, because there is a raising global awareness that such damage can kill the planet (the fear of the "end of the world") and there to do something about it.

- "World Society" does not mean integrated society (Beck, 1998: 29, 31). His planetary character is given by the fact that risks affect threaten all mankind to operate globally. But just one of the difficulties to face is the lack of a world government (or something close to it).

III. A PALPABLE HUMAN CONSEQUENCE: MIGRATION FROM THE PERSPECTIVE OF THE THEORY OF RISK SOCIETY AND ENVIRONMENTAL DISPLACED

We noted earlier that the theory of risk society is a contribution from the social sciences that can be useful to understand some effects of global warming and climate change. This will be illustrated with a consequence to social and environmental instead of those phenomena: human displacement due to extreme events (droughts, floods, desertification, food crises, etc.). Before that, let's see how you can interpret the phenomenon of migration from the perspective of risk.

3.1. Migration and risks.

The threats are global not affect everyone equally. Some are able to escape them or at least to minimize their effects, others have no output:

"The history of risk sharing shows that they follow, like wealth, class scheme, but in reverse: accumulate riches above, the risks below. Therefore, the risks seem to strengthen and not to suppress the class society. The inadequate supplies the lack of security and an overabundance of risks that should be avoided is added. Against this, the rich (in income, power, and education) can be purchased security and freedom from risk.

"... Also the possibilities and abilities to face risky situations, avoid them, compensate them, appear to be unevenly distributed to layers of income and various educations: who has the necessary financial cushion long term can try to avoid risks by choosing the place of residence and housing configuration (or by a second home, vacation, etc.). The same goes for food, education and the corresponding behavior in relation to food and information "(Beck, 1998b: 40-41).

One of the victims of the risk society are environmental migrants, also called "ecological displaced" or "environmental refugees" who have to move temporarily or permanently as a result of the effects of climate change.

We can say in relation to migration, the following:

- Migration, although inherent in the history of mankind, acquired a special notoriety in the risk society. The movement of people across borders becomes more visible, precisely because the borders become more invisible, more permeable, more than walls between them and controls are lifted.
- In the risk society, as pointed by Ruíz, the migrant appears both as a risk and as being at risk.

In the first approach it is presented as a carrier of threats to society which arrives: crime agent, carrier of diseases and "strange" cultural customs, etc.

The second perspective, the migrant as a person at risk, emphasizes the situation of constant danger in living this: the violation of their human rights constantly undergoes (victim of the atrocities of the "coyotes" and humiliation practiced by the society that "hosts") (Ruiz, 2002).

- The same globality causes the migration because of the "international division of labor", is the global organization of production of goods and services: some countries specialize in the production of certain goods and services, other states are engaged to the production of other goods and services.

So it migrates both, the workforce with little or no (farm laborers, construction workers) as "talents" ("brain drain") formation.

But in globality the "moving", the move is not heritage of the people and the workforce. Also they migrate the capital, and even there is a sub-species specialist in travel these: the "hot money". Often the movement of capital attracted to them certain types of labor.

The welcome to the ones who move, is to either be labor or capital, is differentiated: the euphoric reception that is given to entrepreneurs / investors / capital and the "brains" contrasts with signs of rejection given to the poorly skilled force and the violation of human rights which, in various forms, is subjected work.

3.2. Displaced global warming.

François Gemenne, researcher at the Institute for Sustainable Development and International Relations, based in Paris, said the following at the Climate Summit in Poznan, Poland, in December 2008:

"Of course there are environmental refugees. There are people of very low-lying islands that are moving by sea level rise and coastal erosion, migration within China by desertification and people trying to get out of Bangladesh because they suffer flooding each with increasing frequency. Environmental factors influence ".

"We have identified 22 hot spots. Many Africans, fleeing desertification, crossing to Yemen trying to reach Saudi Arabia. Therefore Arabia has built a wall with Yemen. Or the border between Bangladesh and India. Bangladesh accuses India of flood you with a dam and suffering the sea level rise. India plans to raise a border "(quoted by Mendez, 2018).

The concept has been coined to refer environmental refugee has:

"... People, towns and in the most serious situations, cities have been forced to move from their homeland, due to problems associated with the environment, natural disasters: hurricanes or tsunamis, and also for other reasons of devastation such as deforestation, desertification, floods, and droughts, with the consequent lack of water, food and energy, and risk of disease, which makes for these people, there is little or no hope of return. These people are called "environmental refugees ", a term that includes not only those that have to move to other areas within the same country, but also those who often cross international borders. Trying to cross the border into safer territory, thousands of these displaced persons die each year in the migratory routes, by restrictive policies of the countries they are targeting and the militarization of borders "(Borras, 2008: 1).

There are three types of displaced. First, you have to temporarily move following extreme events such as earthquakes, tsunamis, hurricanes, floods; but time after the events can return to their hometowns. It is also a second type: that make people who can´t return to their habitat due to the degree of destruction or due to the exploitation of natural resources. A third type is people whose lands were taken (by purchase and / or expropriation) to give another economic destination (example, construction of mega-projects tourism in what were populated by fisher folk before) (Borras, 2008: 3-4). In some cases the difference between these situations is very faint and difficult to establish whether the act of leaving the habitat is voluntary or forced.
The following table identifies some factors that generate this type of displacement:

Table No. 2: Causes that favor environmental refugees

Naturals	**Anthropogenic**		
Environmental disasters or disasters	Long-term processes	Political and military conflicts	Socioeconomic factors
·Flood ·Typhoons ·Droughts ·Pest ·Earthquakes ·Tsunamis ·Heat waves ·Increase in sea level ·Volcanic eruptions ·Storms ·Tornadoes	·Long term processes: desertification, degradation farmland, Overuse and inadequacy of water resources, erosion soils, deforestation. ·Spill oil or substances chemical rivers or coasts ·Accident chemical or nuclear.	·Destruction crops ·Using chemical weapons ·Shelling	·Distribution of resources ·Development projects ·Lack of sources

Source: Taken from Perales, 2010: 5 (Prepared by Lastiri, Angelica).

IV. GIVEN THE GLOBAL ENVIRONMENTAL THREAT, COOPERATION BETWEEN STATES AND INTERNATIONAL REGIMES

Climate change as mentioned above has an impact globally, so that their disasters and effects affect all States. A few more than others, but inevitably the concept of globality of Beck, each State will suffer either directly or indirectly for the damage suffered by a neighboring country or a business partner, among others.

That is why cooperation between States to carry out agreements, arrangements and international environmental protocols is greater. This coupled with the financial and technical cooperation in multilateral environmental matters, and of course, an important environmental component in many of the systems integration of the current international system.

4.1. Climate change and cooperation among States.

"The international climate regime is a case of international cooperation post hegemonic" (Kiessling, 2011: 1). As such in the beginning it was seen more as a problem of development in the South, however, now countries like China and the United States have had to express its intention to combat climate change (Xinhua, 2016).

And climate change becoming a subject of international cooperation, not only South-South as in the beginning, if not North-South. This change was mainly because many powerful states have joined the fight against climate change, reaching the point where China and the United States that once had been reluctant to cooperate in this matter are added. Recall that the United States is among the states that have not ratified the Kyoto Protocol (1997) and China among those who signed but did nothing to meet the decline in greenhouse gas emissions.

4.1.1. International regimes as an instrument for environmental cooperation.

To carry out this multilateral environmental cooperation, States have resorted to international regimes. So that international regimes are located in the center of the scene "as a means of facilitating cooperation in a world where anarchy and states as SI base unit continues seeking to satisfy their interests" (Kiessling, 2011: 6) . So what is an international regime? They are:

"The principles, norms, rules and decision-making procedures, explicit or implicit, around which actors' expectations converge in a particular subject area of international relations. Principles are beliefs of fact, causation and rectitude. Standards are standards of behavior defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. The decision-making procedures are prevailing practices for making and implementing collective choices "(Krasner, 1982).

To carry out cooperation policy coordination is required, is where "international regimes play a key role socialization of States" (Kiessling, 2011: 8), so that institutionalize practices in policy areas; in this case specifically in environmental matters.

This work is carried out mainly by the United Nations Framework Convention on Climate Change (UNFCCC for its acronym in English). So if we talk about the principle of the scheme is its backbone, which is responsible for giving meaning to their existence, in international cooperation in the area of climate change, the backbone would be the stabilization of greenhouse gases present in the atmosphere (Kiessling, 2011: 12).

Regarding climate change could mean that there should be a "harmony of interests" between the States of a region in view of achieving sustainable development (Kiessling 2011: 15). This is why initiatives have been taken as Commission for Environmental Cooperation of North America (CCA), cooperation among Caribbean countries to prevent natural disasters, Red Ibeoramericana Office of Climate Change (RIOCC), Intergovernmental Panel on Climate Change (IPCC), among many others.

However, not all countries have defined climate change as a state priority, and as a pillar of its foreign policy. It is these differences of interests, power, environmental information and belief among multiple actors who make up the international system of environmental cooperation, which have resulted in "a weak institutionalization of the same regime" (Kiessling, 2011: 18).

4.1.2. Cooperation as an obligation.

Despite the differences and problems that can live international regimes, it is important to emphasize that cooperation for combating climate change has become an obligation of States. This is because an increase of 2 degrees Celsius in the Earth's surface would bring catastrophic or devastating consequences for humans and the planet in general. So this has forced states to work together, but has also led to those states with greater economic capacity have to cooperate and fund training projects summits, and on environment.

Therefore, States have agreed to address climate change from different areas: scientific, political, economic (financing of the fight), social, among others. So they have created regimes, instruments, institutions and entities that go beyond just the UNFCCC. These appear the aforementioned Kyoto Protocol, RIOCC, IPCC, Inter-American Institute for Research on Global Change (IAI), Commission for Sustainable Development of the United Nations (CDS), Dialogue on Climate Change, Clean Energy and Sustainable Development, among many others. And of course organizations such as the Organization for Economic Co-operation and Development (OECD) and systems integration as the Pacific Alliance to give some examples, which have involved a strong environmental component to its treaties and functions.

In the words of Christiana Figueres said in an interview for ABC.es (2016), "if we do not tackle climate change we will be easily doubling or tripling the number of displaced people. The population will not have enough food or enough water to stay in your home is going to move. "That is why it is so important the issue of climate change and its impact on environmental displaced.

4.2. Environmental refugees.

Let us go back to this point that is the leitmotif of this work.

According to UN data, 60% of migratory movements are caused by climate change and disasters such as droughts or floods (Caceres, 2010: 11). Appearing this migrant such as a risk and in situation of risk. Intone, what it is meant by environmental displaced?

"People or groups of people who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are forced to leave their habitual homes, or choose to do so, either with temporarily or permanently, and who move within their own countries or abroad "(IOM, 2007: 3)

Among the most important causes of these migratory movements are severe climatic consequences of climate change and mismanagement of natural resources, water scarcity, desertification, deforestation, drought, inability to produce food, diseases, growth of the sea, among others (Solá , 2012: 110).

An important aspect is the vulnerability of individuals, groups and communities. Referring to adaptive capacity is not the same, which is why international cooperation and commitment of governments and the international community is vital to mitigate the effects of climate change. This is done through the provision of resources and assets to face risk situations and to prevent turn (Egea & Soledad, 2011: 212).

Environmental displaced have increasingly gained prominence on the international agenda. The climate crisis and the great migrations in search of environmental shelter have put on the table that this crisis can lead to a breach of the exercise of human rights on the planet (Solá, 2012: 106), understanding that human rights treaties most were drafted and signed before it became known about climate change.

So it will be vital to reduce the magnitude of climate change and its effects on the planet and mitigate the migration, environmental strategies and sustainable development to implement States and the international community, both in the short and long term (Solá, 2012: 109). The commitment of the most polluting states will be fundamental to reduce their emissions of greenhouse gases, but also in compensating developing countries that are being affected.

V. RATING INSTRUMENTS AND GLOBAL ENVIRONMENTAL PROTOCOLS

5.1. United Nations Framework Convention on Climate Change.

It would be in the United Nations Conference on Environment and Development held in Rio de Janeiro (1992), where three major international treaties would take place. The UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (UNCBD) and the Convention to Combat Desertification (UNCCD); known as the Rio Conventions.

The UNFCCC enter into force on 21 March 1994, with the main objective "to stabilize concentrations of greenhouse gases in the atmosphere at levels that do not cause dangerous changes to the climate system" (UNFCCC, SFA). So look for the ecosystems to adapt naturally to climate change, to ensure food production of this threat and promote sustainable economic development.

The Convention is now signed by 195 countries, with almost universal (Ministerio de Agricultura, SF). For this Convention to be effective, "decisions must be approved by all Parties by consensus (...) are made, these decisions are discussed and approved at the Conferences of the Parties (COP)" (MAGRAMA, SF).

So it has been this Convention, where they were born important instruments and "almost global" environmental protocols of character towards the fight against climate change.

5.2. Kyoto Protocol.

The Kyoto Protocol is the most important institutional agreement on climate change, which has its origin in the UNFCCC (StopCO, 2002, 2). It would be during the 3rd Conference of the Parties in Kyoto (1997), this protocol would be adopted. With the primary mission of "establishing stricter reduction commitments and limiting greenhouse gas (GHG) emissions for developed countries" (CNMA, SF 2).

At first it was intended to jointly reduce GHG emissions to 5% of existing levels by the year 1990 (CNMA, SF 2). But endangering the limit is no sign was set at 1.8% at the summit in Bonn. However just as the US Senate would not ratify the Protocol and Canada on the other hand not abandon the Protocol to pay fines of breach of reducing greenhouse gas emissions.

While the goals were not achieved, the Kyoto Protocol can be considered as an important step towards a truly global regime on the reduction and stabilization of GHG emissions (UNFCCC, SFB). In addition it provides an important architecture for any international climate change agreement to be signed in the future.

5.3. Montreal Protocol[2].

The Montreal Protocol entered into force on 1 January 1989, being ratified at that time by 29 countries and the European Economic Community (EEC). It currently has 191 parties (UNEP, 2007; 6).

This Protocol aims at the elimination of substances that deplete the ozone layer, "to prevent damage to health and the environment, supporting with financial resources (Multilateral Fund of the Montreal Protocol) to developing countries and developed countries" (SEMARNAT, 2013).

For the year 1987 when the Protocol was adopted, this was the first multilateral and legally binding international agreement on the environment (UNEP, 2007; 3). Showing at the time the acceptance of the international community to initiate a process of responsibility for the environment.

Today we can say that the Montreal Protocol is an important model of "global partnership of cooperation and consultation on environmental matters" (UNEP, 2007; 3). Besides, it is important to mention that if the Protocol currently still so necessary is that this has been adjusted and amended over time, so have

[2] The four amendments which the Montreal Protocol has called for adoption instead are London, Copenhagen, Montreal and Beijing.

accelerated phase-out schedules, have introduced new types of measures control and they have added new controlled substances to the list (SEMARNAT, 2013).

5.4. Rio + 20 (2012).

Rio + 20 is the name given to the United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil. This after the Earth Summit held in Rio (1992).

At this conference world leaders, private sector, NGOs and other groups met. "The official talks focused on two main issues: how to build a green economy to achieve sustainable development and lift people out of poverty, and how to improve international coordination for sustainable development" (UN, 2012).

This document presents sustainable development as a shared responsibility among all countries, although it is clear with deference depending on their level of development (Baron, 2012). It was determined at the Conference that eradicating poverty is the greatest global challenge (Baron, 2012) and apart from this agreement putting 190 countries to sign a document, and is considered an achievement.

Though really if you can consider the conference as "unambitious" "disappointing" and even "the only possible agreement" (CDKN, 2012). However it should be clarified that the biggest disappointment regarding this agreement, is supported by the great expectations held. Mainly back 20 years after the historic agreement which took place in Rio de Janeiro in 1992.

While this agreement left a big gap in terms of commitments, targets and deadlines. The agreement entitled "The Future We Want" can be considered as a good basis for the beginning of the transition (CDKN, 2012).

The Conference demonstrated that the lack of agreements between countries, companies and civil sector can lead to an historic opportunity to generate significant future agreement to be wasted. Leaving points as oceans, UNEP as the new agency UN system, more funding for sustainable development policies, among many others that could not be covered or simply no consensus was reached.

5.5. COP 21 Paris (2016).

The Paris Conference (COP 21) brought together 195 countries to sign two important agreements. "The Paris Agreement" and "Decision", with the main difference being that the former does not allow changes or modifications, while Decision may be modified with other decisions made in the next Conference of the Parties (CCOO, 2015, 2). To enter into force the Paris Agreement is required to be ratified by 55 countries representing at least 55% of global emissions of greenhouse gases (BBC, 2015).

Importantly, this "is the first agreement in which both developed countries and developing countries agree to manage the transition to a low carbon economy" (BBC, 2015).

Among the main points of agreement highlighted that the increase in global temperature should be well below two degrees Celsius; that the agreement is legally binding on the signatory countries; , Close to US $ 100,000 million for developing countries from 2020 and funds a review of five years on the compliance of each country (BBC, 2015).

However the agreement does not set specific targets in important areas such as adaptation and financing, being very weak covenant as to guarantee coordination and action and international cooperation (CCOO, 2015, 3). On the other hand, there is no concrete mitigation goal set long-term, which would have an important role to show you the way to countries on how to adapt their goals.

While you could say that the deal would flee to impose specific measures and leaves many doubts in certain areas, you can´t remove the merit of it to be universal and binding. Since this is the first time that an agreement against global warming practices involves the entire planet (CCOO, 2015, 3). Therefore it is clearly a historic agreement of a magnitude to many of the above.

However you can´t praise the whole agreement. While this is legally binding, national targets for reducing emissions are not required, or funding commitments (CCOO, 2015, 3). Finally, the Paris Agreement is not perfect, but it is a big step to ensure a sustainable future for the planet.

VI. BY WAY OF CLOSING: MANY PROTOCOLS AND INSTRUMENTS: A SOLUTION?

There are lots of tools, protocols, agreements, statements and codes agreed in favor of climate change and the environment and that directly or indirectly concerns the phenomena of environmental displaced. Some of those who stand out are: the International Agreement Tropical Timber, International Code of Conduct for Fisheries Convention for the prevention of pollution from ships, Convention on the Protection of the world Cultural and Natural Heritage, among many others that could be mentioned.

But the question that arises to see so many agreements and so little progress is: are these tools really the solution to climate change? Seeing the assessments previously made are known as the consensus among States is practically impossible and if required do force countries to comply with the agreement.

On the other hand, there is a total commitment of (major pollutants and emitting GHGs) developed countries, so that they only sign the instruments that allow the industry to continue emissions against the ozone layer, plus they are few occasions that ratify the agreements reached.

So no more instruments are needed, what is needed is awareness on the part of the biggest polluters worldwide commitment of all countries to achieve lower emissions of GHGs and thus avoid the increase in global temperature. More international cooperation and financing and will primarily towards a sustainable and sustainable future on planet Earth.

BIBLIOGRAPHY

[1]. Barón, Francho (2012). *Río+20 cierra el pacto posible.* El País. Consultado el 8 de agosto de 2016 de: http://sociedad.elpais.com/sociedad/2012/06/19/actualidad/1340127312_162340.html

[2]. BBC (2015). *COP 21: Aprueban histórico acuerdo contra el cambio climático en la cumbre de París.* BBC Mundo. Consultado el 29 de julio de 2016 de: http://www.bbc.com/mundo/noticias/2015/12/151211_cumbre_clima_paris_cop21_acuerdo_az

[3]. Beck, Ulrich (1998 a). *¿Qué es la globalización? Falacias del globalismo, respuestas a la globalización*. España: Paidós.

[4]. Bech, Ulrich (1998 b). *La sociedad del riesgo*. España: Paidós.

[5]. Beck, Ulrich (2000) "Retorno a la teoría de la ´sociedad del riesgo´". En: *Estudios.* Boletín de la A.G.E., N. 30.España: Asociación de Geógrafos Españoles.

[6]. Beck, Ulrich (2004). *Poder y contra poder en la era global. La nueva economía política mundial*. España: Paidós.

[7]. Beck, Ulrick: "La reinvención de la política: hacia una teoría de la modernización reflexiva". En : Beck, Ulrich; Giddens, Anthony; y Lash, Scott (2008). *Modernización reflexiva*. España: Alianza Universidad.

[8]. Borrás, Susana (2008). "Aproximación al concepto de refugiado ambiental: origen y regulación jurídica internacional" (Conferencia impartida en el "III Seminario sobre los agentes de la cooperación al desarrollo: refugiados ambientales, refugiados invisibles?". España: Universidad de Cádiz.

[9]. Cáceres, Verónica (2010). Los refugiados ambientales: un drama en crecimiento frente a la expansión del capital sobre la naturaleza (Ponencia presentada en las "XXII Jornadas de Historia Económica". Argentina: Asociación Argentina de Historia Económica y Universidad Nacional de Río Cuarto.

[10]. CCOO (2015). *Principales resultados de la Cumbre de Cambio Climático de París.* Informe de valoración de CCOO. Consultado el 1 de agosto de 2016 de: http://www.andalucia.ccoo.es/comunes/recursos/2/doc273803_Informe_valoracion_de_la_cumbre_de_Paris_2015_por_el_cambio_climatico_.pdf

[11]. CDKN (2012). *Luego de Rio+20 – Un balance de la Conferencia de las Naciones Unidas sobre Desarrollo Sostenible.* Alianza Clima y Desarrollo. Consultado el 9 de agosto de 2016 de: http://cdkn.org/2012/06/luego-de-rio20-un-balance-de-la-conferencia-de-las-naciones-unidas-sobre-desarrollo-sostenible/?loclang=es_es

[12]. CNMA (SF). *Protocolo de Kyoto*. Convención Nacional de Medio Ambiente. Santiago, Chile. Consultado el 9 de agosto de 2016 de: de Estrada, Victoria (2010). "El debate sobre desplazamientos poblacionales por deterioro ambiental. Indagaciones sobre su aplicación: al caso de Argentina". En: Intellector, Volumen VII, N. 13. Brasil (www.revistaintellector.cenegri.org.br).

[13]. Egea, Carmen & Soledad, Javier (2011). *Los desplazados ambientales, más allá del cambio climático. Un debate abierto.* Cuadernos Geográficos N° 49.

[14]. Figueres, Christiana (2016). Frase frenopático: «el cambio climático y crisis de refugiados están ligados». *ABC.es.* Consultado el 1 de agosto de 2016 de: https://somatemps.me/2016/07/27/frase-frenopatico-el-cambio-climatico-y-crisis-de-refugiados-estan-ligados-christiana-figueras-aspirante-a-presidir-la-onu/

[15]. Kiessling, Christopher (2011). "Conducta estatal y regímenes internacionales: un análisis del régimen del clima". *Sociedad Argentina de Análisis Político.* Córdoba, Argentina.

[16]. Krasner, Stephen (1982). "Structural causes and regime consequences: Regimes as intervening variables". *International Organization*.

[17]. Jiménez, Rodolfo (2011). "Globalización, riesgos y seguros" (Monografía presentada en el curso "Colonialidad, geopolítica y transformaciones político-culturales" del Doctorado en Ciencias Sociales). Costa Rica: Universidad Nacional.

[18]. Méndez, Rafael (08/12/2008). "25 millones de parias climáticos", en: El País. España. Recuperado el 24 de febrero del 2011 de:

[19]. http://www.elpais.com/articulo/sociedad/25/millones/parias/climaticos/elpepusoc/20081208elpepisoc_3/Tes

[20]. Ministerio de Agricultura, Alimentación y Medio Ambiente (SF). *Página Oficial*. Gobierno de España. Cambio Climático. Consultado el 9 de agosto de 2016 de: http://www.magrama.gob.es/es/cambio-climatico/temas/el-proceso-internacional-de-lucha-contra-el-cambio-climatico/naciones-unidas/CMNUCC.aspx

[21]. Morales, María Fernanda; Soto-Acosta, Willy (2015). "La población indígena y el cambio climático en Centroamérica: aproximaciones a su impacto". *Interritórios* | Revista de Educação Universidade Federal de Pernambuco Caruaru, BRASIL | V.1 | N.1.

[22]. OIM (2007). *Nota para las Deliberaciones: La Migración y el Medio Ambiente*. Nonagésima Cuarta Reunión del Consejo, MC/INF/288, 10 págs.

[23]. ONU (2012). *¿Qué es Río+20?* Naciones Unidas. Consultado el 7 de agosto de 2016 de: http://www.un.org/es/sustainablefuture/about.shtml

[24]. PNUMA (2007). *20 años de éxito*. PNUD protección de la capa de ozono. Consultado el 8 de agosto de 2016 de: http://www.protocolodemontreal.org.br/eficiente/repositorio/publicacoes/963.pdf

[25]. Perales, Arturo (2010). "Refugiados ambientales, cambio climático y capitalismo". En: *Alternativas. Revista Electrónica,* Año V, Número 68. México: Red Mexicana de Acción frente al Libre Comercio / RMALC RR 0

[26]. Pernia, José y Fornés, Juan (2008). *Cambio Climático y Agua Subterránea*. España: Instituto Geológico y Minero.

[27]. Ruíz, Olivia (2002). "La migración en la globalización de la sociedad del riesgo". México: El Colegio de la Frontera Norte. Recuperado el 16 de julio de 2008 de: http://www.ciepac.org/docprint.php

[28]. Ruíz, Olivia (s.f.). "Riesgo,migración y espacios fronterizos". En: *Estudios Demográficos y Urbanos*. Mxico: El Colegio de la Frontera Norte.

[29]. SEMARNAT (2013). *Protocolo de Montreal.* Secretaría de Medio Ambiente y Recursos Naturales. México. Consultado el 9 de agosto de 2016 de: http://www.semarnat.gob.mx/temas/agenda-internacional/protocolo-de-montreal
[30]. Solá, Oriol (2012). *Desplazados medioambientales: una nueva realidad*. Instituto de Derechos Humanos Pedro Arrupe. Cuaderno Deusto de Derechos Humanos N° 66. Bilbao, España.
[31]. StopCO (2002). *Resumen del Protocolo de Kyoto.* Convención Marco de las Naciones Unidas sobre Cambio Climático. EUSKADI. Consultado el 9 de agosto de 2016 de: http://www.stopco2euskadi.net/documentos/Protocolo_Kyoto.pdf
[32]. UNFCCC (SFa). *Página Oficial.* La Convención del Cambio Climático. Consultado el 9 de agosto de 2016 de: http://unfccc.int/portal_espanol/informacion_basica/la_convencion/items/6196.php
[33]. UNFCCC (SFb). *Página Oficial.* Protocolo de Kyoto. Consultado el 9 de agosto de 2016 de: http://unfccc.int/portal_espanol/informacion_basica/protocolo_de_kyoto/items/6215.php
[34]. Xinhua (2016). "China y EEUU expresan disposición a cooperar sobre cambio climático". Consultado el 30 de julio de 2016 de: http://spanish.peopledaily.com.cn/n3/2016/0607/c31621-9068981.html

The authors:

Josué Fernández Araya. He is a student of the School of International Affairs at the National University of Costa Rica. His interests include Latin American integration, trade policy, development economics and public policy. E-mail Contact: JFdezA94@gmail.com

Willy Soto Acosta. Sociologist and political scientist. PhD from the Université d'Aix-Marseille. Professor of the School of International Affairs at the National University (Costa Rica) and professor of PhD in Latin American Studies from the same university. Member of the working group: "subjectivations, citizenships critical and social transformations". He is a member of the Latin American Network of Methodology of Social Sciences. Contact: altivohaciaadelante@gamil.com, willy.soto.acosta@una.cr