

KENFACK Chrislain Eric

CLIMATE POLITICS FROM BELOW: THE CLIMATE JOBS CAMPAIGN AS A SOCIAL MOVEMENT RESPONSE TO GLOBAL CLIMATE GOVERNANCE

Doctoral Thesis in Democracy in the 21st Century, supervised by Professor Stefania BARCA and Doctor Emanuele LEONARDI, presented at the Faculty of Economics of the University of Coimbra

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KENFACK Chrislain Eric

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Doctoral Thesis in Democracy in the 21st Century

A thesis submitted at the Faculty of Economics of the University of Coimbra in fulfillment of the requirements for the degree of Doctor of Philosophy

Supervised by: - Professor Stefania BARCA

- Doctor Emanuele LEONARDI

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DEDICATION

To all those who, around the world, have devoted their lives to the struggle for social and climate justice

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ABSTRACT

Climate change has become one of the key societal challenges of our era because of its impacts on natural, human and social systems, leading therefore to multiple alerts from the global scientific community and the Intergovernmental Panel on Climate Change (IPCC). Those alerts, based on evidences that humans are in large part responsible of the current rise in global GHG emissions that are causing global warming, call the global community to act urgently to avoid the planet from reaching the point of non-return as far as climate change is concerned. Nevertheless, despite the importance and urgency of the matter, it is still quite difficult to conceive strong consensual global measures to fight this phenomenon mostly for two main reasons: 1) The State-centered approach of the current global climate arena that has contributed in putting the majority of world population, especially the most vulnerable, at the periphery of global climate decision-making processes; 2) the reliance on the neoliberal market to solve the crisis created by the neoliberal system of production and consumption. These approaches, as we can learn from the experience of more than two decades of global climatopolitics from above (led by States and market), have resulted in further commodification of nature rather than reduction of global emissions as intended. To revert the situation and push governments to action, there have been an increasing number of mobilizations from below (led by grassroots and labour movements). Among those mobilizations, we can mention the One Million Climate Jobs Campaign (OMCJC), an initiative bringing together trade unions, labour, social movements, religious movements, environmental/environmental justice movements among others in a common platform to fight for Just Transition to a postcarbon society. My use of the South African OMCJC is instrumental in showcasing the strengths and internal contradictions of such project, while the *Portuguese Empregos para* o Clima (jobs for the climate) provides empirical materials to study how a climate jobs campaign is organized and implemented in specific contexts. For the purpose of this research situated within the realm of Political Ecology of global climate governance, I use the Extended Case Method supplemented by techniques such as semi-structured interviews, direct observation and ethnographic notes-taking, and retrieval of scientific/grey literature to collect the data needed for the analysis.

Keywords: Climate politics, Climate Jobs, Social Movements, Climate justice, Social Movement Unionism

RESUMO

A mudança climática tornou-se um dos principais desafios sociais da nossa era devido aos seus impactos nos sistemas naturais, humanos e sociais, levando portanto a vários alertas da comunidade científica mundial e do Painel Intergovernamental sobre Mudança do Clima (IPCC). Esses alertas, baseados nas evidências de que os humanos são, em grande parte, responsáveis pelo aumento atual das emissões globais de GEE que causam o aquecimento global, chamam a comunidade global para agir com urgência para evitar o planeta de chegar ao ponto de não-retorno no que se refere às mudanças climáticas. No entanto, apesar da importância e urgência do assunto, ainda é muito difícil conceber medidas globais consensuais fortes para lutar contra este fenômeno principalmente por duas razões principais: 1) A abordagem centrada no Estado da atual arena climática global que contribuiu para colocar a maior parte da população mundial, especialmente os mais vulneráveis, na periferia dos processos globais de tomada da decisão climática; 2) A dependência no mercado neoliberal para resolver a crise que criou o sistema neoliberal de produção e consumo. Essas abordagens, como podemos aprender com a experiência de mais de duas décadas de climatopolítica global de cima (liderada por Estados e mercado), resultaram numa maior mercantilização da natureza em vez de reduzir as emissões globais conforme pretendido. Para reverter a situação e empurrar os governos para a ação, tanto a nível mundial, nacional e subnacional, temos um número crescente de mobilizações de baixo (lideradas por movimentos de base e trabalhistas). Entre essas mobilizações, podemos citar a campanha Um Milhão de Empregos Climáticos, uma iniciativa que reúne os movimentos sociais, movimentos de justiça ambiental/climática e movimentos religiosos entre outros, numa plataforma comum para a luta pela Transição Justa para uma sociedade pós-carbono. Meu uso da campanha Sul-Africana One Million Climate Jobs Campaign (OMCJC) é fundamental para mostrar os pontos fortes e as contradições internas de tal projeto, enquanto que a campanha Portuguesa Empregos para o Clima fornece materiais empíricos para estudar como a campanha de empregos climáticos é organizada e implementada em contextos específicos. Para esta pesquisa situada no âmbito da Ecologia Política da governança global do clíma, uso o Método do Caso Estendido, complementado por técnicas como entrevistas semi-estruturadas, observação direta e levantamento de notas etnográficas, e exploração de literatura científica/cinza para coletar os dados necessários para a análise.

<u>Palavras-chave:</u> Política climática, Emprego climático, Movimentos sociais, Justiça climática, Sindicalismo de movimentos sociais

RÉSUMÉ

Le changement climatique est devenu l'un des défis sociétaux majeurs de notre époque à cause de ses impacts sur les systèmes naturels, humains et sociaux, suscitant de multiples alertes de la communauté scientifique globale et du Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC). Ces alertes, fondées sur les preuves que l'homme est en grande partie responsable de l'augmentation actuelle des émissions de GES conduisant au réchauffement climatique, invitent la communauté internationale à agir urgemment afin d'éviter d'atteindre le point de non retour par rapport au changement climatique. Néanmoins, malgré l'importance et l'urgence de la question, il est toujours difficile de concevoir des mesures consensuelles globales pour lutter contre ce phénomème pour deux raisons principlage: 1) L'approche Stato-centrée de l'arène climatique actuelle qui a contribuée à mettre la majorité de la population mondiale, en particulier les plus vulnérables, à la périphérie des processus de prise de décisions climatiques; 2) la dépendance sur le marché néolibéral pour résoudre la crise créée par le système néolibéral de production et de consommation. Ces approches, telle que nous enseigne l'expérience de plus de deux décennies de climatopolitique d'en-haut (dirigée par les États et le marché) ont entraînées une plus grande financialisation de la nature, au lieu de contribuer à la réduction des émissions. Pour changer la situation et pousser les gouvernements à agir tant au niveau global, national qu'intra-national, l'on assiste désormais à une multiplication de mobilisations d'en-bas (dirigées par les mouvements à la base et les mouvements ouvriers). Parmi ces mobilisations nous pouvons mentionner la campagne Un Million d'Emplois Climatiques, une initiative rassemblant les syndicats, mouvements ouvriers, mouvements sociaux, mouvements de justice environnementale/climatique, et mouvements religieux entre autres dans une plate-forme commune de lutte pour la Transition Juste vers une société post-carbone. Mon utilisation de la campagne Sud-Africaine One Million Climate Jobs Campaign (OMCJC) joue un rôle instrumental pour déterminer les forces et faiblesses de la Transition Juste, tandis que le campagne Portugaise Empregos para o Clima (emplois pour le climat) fournit des données empiriques pour étudier comment la campagne d'emplois climatiques est organisée et implémentée dans des contextes spécifiques. Pour cette recherche située dans le sillage de l'Écologie Politique de la gouvernance climatique globale, j'utilise la Méthode de Cas Étendu complétée par des techniques tels que les entretiens semi-structurés, l'observation directe et la prise de notes ethnographiques, et la revue de la littérature scientifique/grise pour recueillir les données nécessaires à l'analyse.

<u>Mots-clés:</u> Politique climatique, Emplois climatiques, Mouvements sociaux, Justice climatique, Syndicalisme des mouvements sociaux

LIST OF ACRONYMS

AAU Assigned Amount Unit

AIDC Alternative Information Development Centre

AIFF Associação para a Competitividade da Indústria da Fileira Florestal

(Association for the Competitiveness of the Forest Row Industry)

AILAC Independent Association of Latin America and the Caribbean

ALBA Bolivarian Alliance for the Peoples of Our America

AMCU Association of Mineworkers and Construction Union

ANC African National Congress

APGVN Associação Portuguesa de Guardas e Vigilantes da Natureza (Portuguese

Association of Guards and Nature Rangers)

BECCS Bio-Energy with Carbon Capture and Storage

BEE Black Economic Empowerment

BFAWU Bakers, Food and Allied Workers Union

BINGO Business and industry non-governmental organizations

BPI Banco Portugués de Investimento (Portuguese Investment Bank)

BSAIC Brazil, South Africa, India and China

CaCC/CaCC Campaign against Climate Change

CDM Clean Development Mechanism

CER Certified Emission Reduction

CETA Comprehensive Economic and Trade Agreement

CGTP Confederação Geral dos Trabalhadores Portugueses - Intersindical Nacional

(General Confederation of the Portuguese Workers)

CIFOR Center for International Forestry Research

CJM Climate Justice Movement

CLC Canadian Labour Congress

CNADS Conselho Nacional do Ambiente e do Desenvolvimento Sustentável

(National Council for the Environment and Sustainable Development)

CO₂ Carbon Dioxyde

COP Conference of Parties

COSATU Congress of South African Trade Unions

CPPC Conselho Português para a Paz e Cooperação (Portuguese Council for Peace

and Cooperation)

CTU Chicago Teachers Union

CWU Communication Workers Union

DOE Designated Operational Entity

EAU European Union Allowance Units

EDP Energias de Portugal (Energies of Portugal)

EFF Economic Freedom Fighters

Ejolt Environmental Justice Organisations, Liabilities and Trade

ENGOs Environmental non-governmental organizations

ENGOs Environmental non-governmental Organizations

EPI European Participation Index

ERU emission reduction units

ES Environmental Services

ET Emissions Trading

ETS Emissions Trading System

ETUC European Trade Union Confederation

ETUI European Trade Union Institute

EU European Union

EUA European Union Allowances

EUETS European Union Emissions Trading System

FAO Food and Agriculture Organization

FBU Fire Brigades Union

FENPROF Federação nacional dos professors (National Teachers' Federation)

FOSATU Federation of South African Trade Unions

FSU Fédération Syndicale Unitaire (French United Federation of Trade Unions)

GAIA (Environmental Action and Intervention Group)

GDP Gross domestic product

GHG Greenhouse Gas

ICE Intercontinental Exchange

ICU Industrial and Commercial Workers' Union

IEA International Energy Agency

IETA International Emissions Trading Association

IGO International governmental organization

IGOs International governmental organizations

ILC International Labour Conference

ILO International Labour Organization

INDCs Intended Nationally Determined Contributions

Int Interview

IOM International Organization for Migration

IPCC Intergovernmental Panel on Climate Change

IPOs Indigenous peoples' organizations

IR International Relations

ITF International Transport Workers' Federation

ITMO Internationally Transferred Mitigation Outcomes

ITUC International Trade Union Confederation

IUCN International Union for the Conservation of Nature

JI Joint implementation

JISC Joint implementation steering committee

JT Just Transition

KP Kyoto Protocol

LDC Least Developed Countries

LGBT Lesbian, Gay, Bisexual and Transgender.

LGMAs Local government and municipal authorities

LMDC Like-Minded Developing Countries on Climate Change

MEA Millennium Environmental Assessment

MGDs Millennium Development Goals

MNCP Mouvement National des Chômeurs et Précaires (French National

Movement of Unemployed and Precarious workers)

MOOC Massive open online course

MtCO₂e Metric tons of carbon dioxide equivalent

NGO Non-Governmental Organization

NO nitrogen oxide

NSAs Non-State actors

NUM National Union of Mineworkers

NUMSA National Union of Metalworkers of South Africa

NUS National Union of Students

OEDC Organization for Economic Cooperation and Development

OMCJC One Million Climate Jobs Campaign

PALP Plataforma Algarve livre petroleo (Algarve free oil platform)

PAN Partido para os animais e a naturaleza (Party for animals and nature)

PCS Public and Commercial Services Union

PE Political Ecology

PES Payment for Environmental Services

PI Precários Inflexíveis (Labour movements such as the Association for the

fight against precarious work)

R&D Research and Development

RED Emissions due to Deforestation in developing countries

REDD Reduction of Emissions due to Deforestation and forest Degradation

RINGOs Research and independent non-governmental organizations

RMU Removal Unit

SACTU South African Congress of Trade Unions

SF₂ sulfur hexafluoride

SMU Social Movement Unionism

SO₂ Sulphur dioxide

SPGL Sindicate dos Profesores de Grande Lisboa (Teacher's trade unions of the

Lisbon region)

SPGNorte Sindicate dos Profesores de Grande Norte (Teacher's trade unions of the

North region)

SPGSul Sindicate dos Profesores de Grande Sul (Teacher's trade unions of the South

region)

tCO2e Tonnes of carbon dioxide equivalent

TiSA Trade in Services Agreement

TPES Total primary energy supply

TSSA Transport Salaried Staffs Association

TTIP Transatlantic Trade and Investment Partnership

TUC Trade Unions Congress

TUNGOs Trade Unions non-governmental organizations

UCU University and College Union

UGT União Geral de Trabalhadores (General Union of Workers)

UK United Kingdom

UN United Nations

UNCTAD United Nations Conference on Trade and Development

UNEP United Nations Environmental Programme

UNFCCC United Nations Framework Convention on Climate Change

UNITAR United Nations Institute for Training and Research

UN-REDD United Nations Organization- Reduction of Emissions due to Deforestation

and forest Degradation

US United States

USA United States of America

WMO World Meteorological Organization (not WMM)

WSF World Social Forum

WWF World Wide Fund for Nature

YOUNGO Youth non-governmental organizations

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INTRODUCTORY CHAPTER

1- Context of the research

The 2015 COP 21, after the failure of Copenhagen in 2009, raised great expectations and equally a great sense of involvement from climate movements. Conscious of the challenges posed by that event for the future of the global fight against climate change, the organizers and the French authorities pointed out the importance of putting in place an inclusive decision-making process that will include not only the traditional State actors, but will also facilitate the inclusion of local authorities, companies, private sector, civil society organizations, non-governmental organizations and universities among others¹, not only during the preparation but also and above during the Paris event itself. These declarations ended up being empty promises since, because of the terrorist attacks² that occurred a couple of weeks before in the French capital, most popular events surrounding the COP were banned and the stress was only put on official negotiations carried out by countries' delegates in the presence of officially admitted observers.

Nevertheless, activists still managed to form a human chain, made up of over 3000 people joining arms, along the 1.9 mile route through central Paris from the *Place de la*

https://planetevivante.wordpress.com/2015/11/24/cop21-les-espaces-generations-climat/

¹ For further analysis, refer to the 'Manilla call', launched by the French President François Hollande during his official visit to India on the 26th of February 2015; the 'Address of the French Minister of Foreign Affairs' Laurent Fabius (President of COP 21) to the "Social, Economic and Environmental Council" on April 28th 2015; and the presentation made by Ségolène Royal, the French Minister of Ecology, Sustainable development and Energy, at the planetary citizen debate, "Smart Cities and Business Dialogue" held on September 26th 2015 in New York. The declarations of these three French officials can be consulted in Présidence de la COP 21. 2015. *Le guide des espaces génération climat*. Available at

² On the night of the 13th of November 2015, a series of suicide bombing attacks occurred in the Northern suburb of Paris, precisely in Saint Denis, at the stade de France, were France was playing against Germany on a friendly football match in the presence of the French President François Hollande. This was followed by a mass shooting at cafés, restaurants and a music venue in central Paris, precisely in Rues Bichat and Alibert, Rue de la Fontaine-au-Roi, Rue de Charonne, Boulevard Voltaire and the Bataclan theatre. Those attacks left 130 people dead, with the Bataclan theatre alone having 89 victims, and more than 368 people injured. Following those events that challenged the French security system at the eve of COP 21, the French authorities declared a three months state of emergency and subsequently banned all the public demonstrations that were planned to take place during the Paris Conference of the Parties to the UNFCCC.

République to Place de la Nation (Pandey, 2015), and to use other creative participatory ways to make the voice of the people heard. On the 29th November, the earlier planned "human chain" was formed by activists who defied the state of emergency, and approximately 4500 people participated to the event according to the police. This resulted in violent repression, with many activists arrested and others assigned to house arrest (Grimson and Fieldstadt, 2015). Another symbolic event that took place at the place de la République was the exposition of more than ten thousand pairs of shoes that were sent by thousands of activists who could not participate to the march because of the ban, and many other sympathizers who surely would not have participated to the march, but who took advantage of this new form of expression to associate their voices to that of the silenced voices of the masses, by sending their own shoes for exposition.





Source: http://www.dailymail.co.uk/news/article-3338255/Pope-s-shoes-spotted-Paris-protest-climate-change-conference-prepares-open-conditions-high-security.html

Among those important and high profile sympathizers we can mention Pope Francis whose shoes were bearing his signature and the title of the Encyclical letter he issued some months before in preparation to the Paris COP 21.



Source: http://time.com/4132104/paris-climate-conference-pope-francis/

There were also the shoes of the then acting UN Secretary Ban Ki Moon sharing the following message: "As the world gathers in Paris to stand up for climate action, let us stand in the shoes of all victims of terrorism, war and persecution...and regard with compassion."



Source: http://www.independent.com.mt/articles/2015-11-29/world-news/Live-Climate-change-With-march-banned-activists-in-Paris-use-shoes-6736149277

In short, the banning of public demonstrations during the Paris COP by the French authorities gave rise to a new era of global climate justice activism. In fact, having learnt from the history of the COPs and the limited results of more than 20 years of global climate politics and action led by the UNFCCC and its additional Kyoto Protocol, that "changes in energy industries require the mobilization of mass social movements [and that] we cannot simply wait for visionary politicians to forge the way" (Podobnik, 2010: 77), climate movements organized marches all over the world to demand for an effective global climate deal, in solidarity with the marches organized in Paris in defiance of the ban. In the Lisbon march to which I participated, climate justice movements (Climáximo), labour movements (Precarios Inflexíveis), political parties (Bloco de Esquerda, Partido para os animais e a naturaleza-PAN), anti-extractive movements (Plataforma Algarve Livre Petroleo-PALP), anti-transatlantic-trade agreements movements (Plataforma Não aos tratados CETA/TTIP) and environmental defense organizations (WWF, Greenpeace, GAIA, Quercus) among others came together to demand for a solid agreement in Paris. They carried placards and banners on which one could read messages such as: 'system change, not climate change'; 'we are not defending nature, we are nature defending itself'; 'there is no planet B'; 'Climate justice Now'; 'Kids, sorry about climate change. Your excuse here......Act Now!'; 'clean energy now'; '100% renewable already'; 'no transgenic, go organic'; 'we are all connected'; 'judge eco-crimes'; 'leave fossil fuels under the ground'; 'green power, earth to Paris'; 'stop Shell'; 'stop Exxon'; 'Galp out of Algarve'. A first reading of those messages demonstrates the link that the Portuguese march, just like the other marches organized around the world, identified between the fight for climate justice and a systematic change of the current governance, economic and social patterns. As such, the climate justice fight presents itself not only as a fight for effective

climate change policies, but also and above all as a fight for social justice and against the current socio-political order dominated by the neo-liberal market, and the exclusivist State-centered global governance. Beyond the Portuguese march, a campaign was launched in the country, under the leadership of the climate justice movement Climáximo, to push the transition to a low carbon economy via the creation of 100.000 so-called 'climate jobs'. The present thesis is dedicated to analyzing the emergence and development of that campaign, locating it in the global context of climate mobilizations of the last decade.

On December 12th world leaders, after two weeks of discussions, presented the fruits of their negotiations to the international community as a great success. Nevertheless, it is important to mention that such agreement came, like in the previous COPs, as a result of bargaining among States' representatives exclusively. Moreover, despite the failure of the Kyoto protocol to lead to the expected results in terms of reduction in global GHG, not only did the Paris agreement not put an end to market mechanisms, but it developed it further by instituting a new system of carbon offsetting known as Internationally Transferred Mitigation Outcome (ITMOs). Taken from this double perspective of continuity with the other COP meetings, the Paris agreement presents itself as a good sample for evaluating the global climate governance, as it gives the opportunity of simultaneously considering the three elements that are of relevance for this work: 1) A critique of the currently failing global climate regime from the perspective of marketoriented mechanisms and State-centered decision-making; 2) A review of the new forms of social mobilization in the age of climate change and the proposed alternatives, based on the Just Transition (JT) proposal from unions and labour movements, and the climate justice proposal from climate justice movement; 3) An analysis of the Portuguese climate jobs campaign (Empregos para o Clima) as a project bringing together labour and climate justice movements together in the common struggle for climate, social and labour justice.

2- Research hypotheses

This research is based on three main hypotheses.

• The failure to build effective global instruments to fight against climate change is the combined result of two main factors: 1) The State-centered approach in the decision-making process that has contributed in putting the majority of world population at the periphery of global climate decision-making, and 2) the predominance of carbon trading policies that enhances the commodification of nature and its continuous multiform introduction into the market system.

- The global climate regime will become effective, efficient and equitable only if it
 guarantees the shift from a State-centered and market-oriented to a global justicebased climate regime based on JT principles. The building of such integrative
 regime will depend on the mobilizing and influencing capacities of climate justice
 movements.
- The One Million Climate Jobs Campaign (OMCJC) offers a historical opportunity to build a social coalition around labour, social and climate justice demands, thus pointing to a possible way forward from the current climate regime.

The thesis explores the above three hypotheses through a trans-disciplinary approach, that of Political Ecology (PE). In what follows, I will briefly sketch out what the PE approach consists of, and then offer a synthetic review of some of its main research findings as related to the topic addressed in this thesis, that of climate politics.

3- The Political Ecology of climate change

The concept of PE was first coined in French (Écologie politique), and was later on rendered popular by Bertrand de Jouvenel in 1957 and in English by anthropologist Eric Wolf in 1972 to qualify the movement born in "reaction to the neglect of the political dimensions of human/environment interactions." (Bauler, 2013) Nevertheless, as a field of research, its emergence is chronologically situated in the 1960s-1970s and was "propelled by the environmental crisis. PE opened an inquiry into socio-environmental conflicts generated by the capitalist appropriation of nature." (Leff, 2015a:65) In fact, PE appears to have emerged to point out the political dimensions of the ecology and environmental issues (Le Billon, 2015). As Leff argues ecology and environment became political for two main reasons: 1) the human interventions that contribute to the transformation of nature and the environment, and 2) the "will to power that people exercise over nature [and] the processes of appropriation guided by differentiated and often conflicting values and interests." (Leff, 2015a: 68)

In this regards, PE can then be understood as an "epistemological project, which sets out to shatter comfortable and simplistic "truths" about the relationship between society and its natural environment" (Bridge et al., 2015:5), or better said, as a "field of research and social practices focused on socio-environmental conflict and the differentiated distribution of the costs and benefits of global change." (Leff, 2015a:67-69) Consequently, the term PE assumes a dual meaning: As a scientific enterprise; that is an interdisciplinary field of study drawing on disciplines such as political economy, anthropology, sociology, geography, environmental history, forestry, development studies, political science and international relations among others, and using a multiplicity of theoretical frameworks such as "liberal theory, Marxism, post-structuralism, feminist theory, phenomenology, postcolonial theory, complexity and natural science approaches such as landscape ecology and conservation biology" (Escobar, 2010:91) to engage in "the study of power relations and political conflict over ecological distribution and the social struggles for the appropriation of nature." (Leff, 2015b:33) Secondly, as a socio-political project and movement aiming at politicizing the different conflicts, the various power logics surrounding human-nature relations among others, or better said all the "social forms and human organisation that interact with the environment." (Bauler, 2013) To this regard, PE is concerned with the "myriad networks and institutions in civil society that encompass such things as the everyday actions of social and environmental movements (including more radical NGOs, such as Global Witness and La Via Campesina), as well as campaigns for environmental justice." (Batterbury, 2015:34) The struggles of such organized movements and networks on one side and, on the other side the writings, as well as the struggles of individual activist-writers and investigative journalists such as "George Monbiot (UK), Ann Danaiya-Usher (Norway/Thailand), Marites Dañguilan Vitug (Philippines), Naomi Klein (Canada) and Larry Lohmann (UK)" (Batterbury, 2015) are all situated within the realm of PE.

Beside its multi-disciplinarity, and even though it takes advantage of approaches that can generally be situated within the qualitative, quantitative or participatory research designs, PE is fundamentally characterized by a theoretical and methodological pluralism that comes as a result of the variety of research themes and issues it considers. Those themes include among others

[The] integration of scales of analysis across time and space; importance of histories and cultures; marginalization of people with a perceived legitimate claim to land and other naturel resources; attention to informal and formal access rules; a focus on different levels of social relation and expression of power and the entanglement of local concerns with wider governance and market forces (Doolittle, 2015:515)

The plurality of those research themes and the multiplicity of scientific disciplines involved render the reliance on a single methodology and a unified theorization impossible in PE. In the design and implementation of their research, political ecologists take advantage and select among a range of methodological and theoretical approaches available across social sciences disciplines to critically analyze and "understand the dynamics of contemporary, complex, multi-scale, interdependent socio-ecological systems." (Ibid:527) In other words, just as PE cannot be epistemologically situated within the frontiers of a single scientific discipline, it results that its approaches cannot follow a single uniform methodological or theoretical framework.

When it comes to the specific case of climate change governance,

Political Ecology has much to offer to the analysis of the international climate regime including the political economies of responsibility for emissions, the distribution of vulnerability to climate changes, the decisions to use market solutions, the agency of non-Nation State actors, the governmentalities of climate science and monitoring, and the interactions of climate policy and development (Bumpus and Liverman, 2011:219

The importance of PE in this regard comes from the fact that, despite the disparity of its study objects, its multiple analytical/theoretical frameworks and methodological approaches resulting from its interdisciplinarity (McCarthy et al., 2015), it provides a ground to theoretically and methodologically address the current global climate crisis from a social critical perspective. From this perspective, it focuses on the critical analysis of the *politically incorrect* questions of the current global climate regime from the double perspective of decoupling and development (Gudynas, 2016). As Gudynas continuous, current climate change negotiations are based on the conviction that economic development can be reached through what he calls the "Impossibility Quadrilemma of climate change." That is, development models that simultaneously incorporate economic and financial globalization, democracy within States, State sovereignty in the international arena, and global environmental conservation. The *politically incorrect* matter or the political taboo pointed out by PE in this regard is the impossibility of simultaneously meeting the goals pursued by the four dimensions of the quadrilemma. That is why, the

critical analysis of global climate governance as proposed by Gudynas goes from the premise that such quadrilemma should be decoupled. The other dimension of the politically incorrect question raised by the PE of climate change is the very ideal of development. PE here questions both the current fossil fuels dependent development models that have led to the climate crisis, and the market-based and technological approaches proposed as solution to climate change within the same neoliberal development models. Giving the impossibility of developing effective climate solutions within these models, "instead of discussing how to agree on an 'ecologic fix' to development, the negotiations should discuss how to leave the development realm." (Gudynas, 2016:3)

Another important theoretical contribution of PE is that it provides tools for understanding the inter-relations between the local and the global in the climate change context. In other words, it is impossible to understand national/local climate policies mobilizations if we do not situate them in what is going on in the global context. As Robertson illustrates, "there is simply no point in trying to understand environmental change [and governance] in Angolan or Costa Rican or Italian town without understanding the institutional disposition in Luanda, San Jose, or Rome, or global economic strategies formulated in New York or Geneva." (Robertson, 2015:460) From this perspective, PE is instrumental for understanding the relation between global climate processes, actors and mobilizations and local climate processes, actors and mobilizations.

As such, from the theoretical perspective PE approach can be used to critically analyse and understand how key dimensions of political economy, human agency, discourse about nature, critical analyses of environmental degradation, mitigation and adaptation, issues of governmentality, actors' networks, and political actors among others (Robbins 2012) are reflected in climate policies and in climate research (Liverman, 2015). In this regard, it can be said that

Political Ecology provides powerful insights into understanding the causes, consequences, and responses to climate change from local to global scales – interweaving material nature with the structural drivers of emissions and vulnerabilities, as well as with the agency of individual and institutional actors and the narratives they embrace to describe, explain, and debate what is happening to climate and what should be done about it. Climate change is an issue that highlights questions of environmental and social justice and can connect many political ecologists to activism and policy." (Liverman, 2015:303)

Despite the multi-dimensional possible uses of this framework in the current climate change context, I will nevertheless focus on specific aspects of the PE of climate change such as differential vulnerability and climate justice, the PE of global climate governance and carbon trading, the PE of environmental conflicts and climate mobilizations, and the PE of labour. The choice of these specific dimensions of PE is motivated by the instrumental role each one of them plays in the critical reading of the current global climate governance, the analysis of the global and local climate mobilizations in the changing environment context, and the alternative solution approach proposed in terms of JT by labour and climate justice movements and articulated through the OMCJC

➤ PE of differential vulnerability and environmental/climate justice

Central to the issue of climate change is the question of vulnerability. In fact, if in general from the environmental standpoint the concept of vulnerability refers to

The characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard (an extreme natural event or process). It involves a combination of factors that determine the degree to which someone's life, livelihood, property and other assets are put at risk by a discrete and identifiable event (or series or 'cascade' of such events) in nature and in society. (Blaikie et al., 1994:11)

In the specific case of climate change, vulnerability can be understood as

The degree to which a system [natural or human] is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity. (IPCC, 2001)

Understanding such vulnerability in the climate change context requires a multilevel and multi-layered analysis, ranging from the global to the local. In fact, at the international level not all States are affected the same way and within states not all communities are equally vulnerable, just as within the communities, not all members have the same level or exposure or the same response capacity and resilience abilities. Such a differential vulnerability raises important justice issues. PE appears to be an important tool in analyzing climate vulnerability and climate justice issues such as differential responsibility in the occurrence of the climate crisis, as well as differential vulnerabilities with regards to climate burden. PE invites to not only consider the historic responsibility of rich countries in causing anthropogenic climate change, but also to take into account current responsibilities, even though determining the responsibilities in current global emissions of GHG in a clear-cutting manner does not seems so obvious: For example, if we consider the emissions responsibilities of countries in relation to international trade, we will realize that 10% to 25% of China's emissions are associated to products that are exported to developed countries (Peters et al., 2011; Liverman, 2015). Consequently, attributing the entire responsibility as determined by their source to China is a partial and inadequate response. Another aspect considered by PE is how different kinds of inequalities determine different levels of vulnerability, adaptive and resilience capacities, as well as burden and benefits sharing, and vice-versa. In fact, "Climate change exacerbates existing inequalities by increasing the severity and likelihood of extreme weather and disaster events that already heavily affect the world's poor." (Raworth, 2008; Mearns and Norton, 2010a) A number of studies acknowledge that the poor, women, people of colour, indigenous people and children are already, and will continue to be the most affected by the adverse effects of climate change in communities around the world either because of their limited access to lands and resources, discriminations and lack of preparation (United Nations Population Fund, 2009; Alston and Whittenbury, 2013; Sultana, 2014). In short, in its critical reading of vulnerability and climate injustices as generated and maintained by the current neoliberal and globalization system (Castree, 2008, Liverman and Vilas, 2006), PE approaches the issue from the angles of economic and financial differences among States, or from the social and class differences, or from the gender perspective among others; that is why political ecologists are encouraged to draw experience from "feminist [and] post-development methodologies that are an important way forward in research on the PE of climate change" (Liverman, 2015:309), while using simple "proxy measures of vulnerability (such as income or food security) and empirically evaluating their connection to losses and suffering" (Ibid:308) in the climate changing context, rather than debating the concept of vulnerability on a uniquely theoretical basis. It is important to mention that the question of vulnerability is closely related to issues of "environmental inequity, environmental injustice, or environmental racism." (Holifield, 2015:586) As such, to study possible solutions to the differential vulnerabilities and the resulting disproportionate distribution of environmental costs, PE gives an opportunity to engage with and to articulate distributive, procedural, recognition and capabilities (preparedness) dimensions of justice in the current fight against climate (Fraser, 1997; Holifield, 2015).

> PE of global climate governance and carbon trading

Even though PE originated from the critique of environmental policies related "to forests, water, agriculture, fisheries, biodiversity, conservation and land, there was little initial attention by political ecologists to climate policy in foundational texts or elsewhere. More recently PE has turned its attention to climate mitigation and adaptation." (Liverman, 2015:310) Nowadays PE appears as an important tool to critically analyze the current global climate governance from the perspective of power relations, States as well as non-State actors, emission pledges and political options among others. In such context, the global climate arena is dominated by States-centered decision-making processes and by market approaches as a way forward from current fossil fuel dominated economies and growth models. The State-centered decision-making is characterized by imbalanced power logics between the different actors. In this regard, the negotiations of global climate instruments are subject to "unequal power relations between the global North and global South" (Braun, 2015:110), and different demands from parties depending on their position in the power scale. By applying a PE approach to global climate governance, this study hypothesizes that the current failure of States to tackle global warming comes not only from the fact that climate change has become the new opportunity for capital accumulation through its introduction in the green capitalism, but also from the State-centrality in global climate decision-making processes, and the power logics on which is built the current international climate arena (Valentin, 2009; Peet et al., 2011; Purdon, 2013).

Another important aspect of the global climate governance that is of relevance to PE is related to the options adopted by the international community to tackle the global climate crisis. In the current climate regime, "nature itself has been rediscovered to function as a market" (Duffield, 2011:763), and all derivative of nature, including volatile materials such as carbon have been transformed into 'measurable' units and have become "a new commodity that links north and south through a complex set of technologies, institutions and discourses" (Bumpus and Liverman, 2011), have been attributed a price and introduced in the market economy. This commodification process is situated within a broad project "defined as (1) an emergent regime of capital accumulation that redefines and co-constitutes socio-natures; and (2) a mode of regulation congruent (but not synonymous) with political economic neoliberalization." (Bakker, 2015:449) In the context of global climate politics, PE has been "at the forefront of scholarship on the

neoliberalization of nature" (Idem.) and has given an important contribution through "its elucidation of the 'limits'-political, technical, socio-economic- to the neoliberalization of nature." (Idem.) It thus appears as an important tool when it comes to critically analyzing "carbon offsets and proposals for REDD [among other mechanisms] in the way it examines the interaction between institutions across scales, the critique of practices and discourses of market environmentalism and development, and in the importance of material nature as an actor and explanation." (Liverman, 2015:309)

> PE of environmental conflicts and mobilizations

Understood in a broad sense as "a social conflict relating to the environment" (Le billon, 2015:599), environmental conflicts are central to PE. This importance led to the definition of PE as "the study of ecological distribution conflicts", or better said the study of "conflicts over the principles of justice applicable to the burden of pollution and to access to environmental resources and services." (Martínez-Alier, 2002:168-169) The ecological conflicts considered by PE are not only limited to the socio-environmental realm, but also they are "in large part about the "conflictual" character of political processes around ecological issues." (Le billon, 2015:598) In this regard as Le Billon continues, from the perspective of environmental conflicts, PE focuses on the analysis of "unfair or tense character of social relations, and associated processes of legitimation and resistance" (Ibid:599), as far as those resistances are related the access or control to the environment (space and place) or natural resources. Those environmental conflicts can generally be motivated by three main factors such "the pursuit of justice, the politicization of socio-environmental interactions and the fight against the "naturalization" of environmental conflicts." (Le Billon, 2015:599) For the purpose of this research, I will focus on the search for justice dimension, based on the environmental conflicts as developed by Juan Martínez-Alier. Environmental conflicts enclosed in the concept of environmental justice, as it originated in the USA, refers to the "the organized movement against 'environmental racism'; that is the disproportionate allocation of toxic waste to Latino or African-American communities in urban-industrial situations" (Martínez-Alier, 2002: 168), while in the global South, environmental conflicts as enclosed in the concept of environmentalism of the poor can generally be understood as struggles for the "defense of common property resources against the state or the market." (Ibid:170) Given that those conflicts are socially carried by a variety of movements ranging from environmental to

civil right, not forgetting labour and social movements in general, we can rightly say, in the specific context of this research, that PE offers a framework for the analysis of environmental justice from the perspective of social movement, or better said, environmental justice as a form of social mobilizations against the current established fossil fuel dependent and climate destructible socio-political and economic order. In this regard, PE is at the "forefront not simply of analyzing environmental justice as value, process, and discourse, but also of identifying strengths and limitations of environmental justice as mobilizing concepts." (Holifield, 2015:594) PE therefore offers a frame that goes beyond the materialist/post-materialist divide in social movement analysis, the social class and group-specific analysis of mobilizations, as well as the conventional left-right-political-visions-inspired movements among others to build "more imaginative and inventive ways of analyzing social movement action." (Heynen and Van Sant, 2015:174)

> PE of labour

Another important angle from which PE can tackle the climate crisis is through the inclusion of labour politics. As Stefania Barca argues, if "trade-unions and organized labour, different groups of workers, and working-class communities, rarely figure in PE narratives as key actors in environmental change and politics" (Barca, 2015:387), in the climate changing context, PE needs to integrate labour in its research and theoretical frameworks. The PE of climate change "suggests that one way of investigating organized labour's role in climate change politics is that of looking at the diversity of labour/environmental strategies, linking them to different economic geographies and political opportunity structures in their continuous re-negotiation at the local/national level." (Ibid:400) From the historical perspective, she continues, we can distinguish two phases in organized labor's environmentalism in developed countries: 1) A first wave of environmentalism (that starts with the birth of trade-unionism) and that focuses on the work and/or the living environment of working-class communities, leading to the convergence of interests between occupational health and safety, and the protection of the environment against industrial pollution and pollutants. 2) A second wave, starting after the Rio 92 summit and that is centered on concepts such as 'sustainable development' and, more recently, 'green economy' and 'JT', which aims at making sure that workers and

their communities do not continue to disproportionally bear the burden of climate change and of the transition to a low carbon economy.

4- Plan of the research

Based on the above-mentioned multiple possible uses of the PE approach in the current global warming context, this thesis will investigate the global climate arena from four perspectives, namely: 1) The commodification of nature which has led to the conception and institutionalization of the global carbon trading system and other marketbased mechanisms. 2) The State centrality in the current global climate regime that has contributed in putting the majority of the population at the periphery of global climate decision-making and has been the motive behind the spreading of climate justice activism around the world. 3) The intersection between climate/climate justice mobilizations and labour environmentalism, whose struggles culminate in the JT project as a mechanism addressing simultaneously sustainable development, environmental protection, and social/climate justice through the triple aspect of distribution of climate burden and benefits, participation in the decision-making process/action, and recognition of all stakeholders. 4) The OMCJC in general and the Portuguese Empregos para o Clíma in particular, as an initiative bringing together labour and environmental/climate justice movements to fight for JT to a low carbon economy under a framework that articulates climate justice, social justice and labour concerns in the post-carbon economy.

Using the PE of climate change framework as mentioned above, I will analyze my research hypotheses by trying to respond to the following key question: How can non-State actors, and specifically labour and climate justice movements become relevant political actors in both national and global climate regime, capable of effectively accelerating the JT to a low carbon economy? To respond to this question I will organize my research around three main parts, namely: 1) The critical evaluation of the current global climatopolitics from the double perspective of carbon trading and State-centrality; 2) The analysis of the JT project as a way forward from the current failing global climate regime, based on the example of the OMCJC; 3) The study of the Portuguese climate jobs campaign, as an empirical demonstration of how the OMCJC is prepared and implemented in specific context, in order to force the JT to a low carbon economy.

> Part I: Global climatopolitics and its critique

The first part of my analysis will be organized in three main chapters centered on the following question: why has the current model of climate negotiations failed to deliver effective and equitable change? The critical reading of the current global climate regime which is the main focus in this section, will consider aspects of the regime such as the carbon trading dogma and the State-centrality in the decision-making process. The Paris Agreement will provide empirical material to critically evaluate the two above-mentioned loopholes of the current global climate regime.

- Chapter one of this section focuses on the market-based mechanisms on which the current climate regime is built. Here the global carbon market mechanisms put in place by the Kyoto protocol under the name flexibility mechanisms (Emissions Trading, Clean Development Mechanism and Join Implementation), as well as the non-instituted but highly implemented Reduction of Emission due to Deforestation and Degradation (REDD), and the recently instituted Internationally Transferred Mitigation Outcomes (ITMOs), are critically analyzed in light of the payment for ecosystem services (PES) ideology and the carbon trading dogma framework.
- Chapter two offers a critical reading of the current climate decision-making process from the actors' perspective. To do that, it starts by presenting the official categorization of actors in the United Nations Framework Convention on Climate Change (UNFCCC), which is then analyzed through four theoretical lenses, namely: The global environmental governance, the green governmentality, the insiders-outsiders, and the environmentalism cathegorization.
- Chapter three focusses on a critique of the Paris agreement from the climate justice
 and PE perspectives. To do so, it starts by questioning the enthusiasm the
 agreement raised as well as its legal-binding nature, and then proceeds by analysing
 how it considers climate justice, JT and the market-based solutions.

> Part II: Climate politics from below

Following the critical evaluation of the current global climate regime done in part one, and taking into account the limited results obtained under the Kyoto period, this second part focusses on proposals from non-State actors, specifically labour and climate justice movements. In order to better render account of those proposals, the section tries to provide answers to the following questions: What actors have been excluded by the negotiations? What is their political proposal? How are they organized and how have hey made their voices heard? The sequence followed is the following:

- Chapter one explores global mobilizations in the age of climate change, focusing on two aspects that are of particular relevance to the OMCJC, namely: 1) Social Movement Unionism (SMU), as an attempt by unions/labour movements to incorporate other social and communities' concerns, including environmental/climate concerns, in their struggles; 2) Climate justice as a coalition of social movements articulating climate and social justice concerns into a single struggle. This chapter also points out the relation between climate justice and the global environmental movement.
- Chapter two focusses on JT as a strategy to move forward from the carbon-intensive economy, proposed by unions and labour movements. The initial section analyzes the emerging research field of Environmental Labour Studies, which helps to understand the growing incorporation of environmental issues in the labour/unions agenda. The second moment is dedicated to the concept of JT, its origin, principles and internal contradictions, mostly the fundamental contradiction between advocates of environmental modernization and those assuming the more radical system change position.
- Chapter three analyzes the OMCJC of South Africa as a paradigm for understanding SMU. In fact, the OMCJC is an inclusive struggle situated at the intersection of climate and social justice mobilizations, with a special focus on economic and job issues. As such, it brings together labor and other social movements within a common climate justice framework. Nevertheless, since the South African campaign cannot be isolated from other OMCJC, I will start by presenting the UK campaign (first born of the OMCJC family) and those later developed in other contexts. After that, I will use the South African case to analyze the strengths and internal contradictions of JT.

> Part III: Portugal and post-Paris climate justice activism: The "jobs for climate" campaign

The third part of this work entirely draws from the empirical material gathered during the preparation, official launching and immediate post-official period of the climate jobs campaign in Portugal. It is important to mention that Portuguese campaigners prefer the terminology 'jobs for the climate' (empregos para o clima) instead of climate jobs (empregos climáticos) to avoid any possible confusion in the Portuguese language. My main purpose in this part is to answer the following question: How is a OMCJ campaign built on the ground? How are climate justice and JT (as articulated by the climate jobs campaign) being linked in Portugal? What are the opportunities, the constraints and the obstacles of the Portuguese campaign, and how are they being addressed by the main actors? In my attempt to answer these questions, I will organize my argument in three chapters as follows:

- Chapter one is devoted to the presentation of the methodology I used in conducting this research. I applied the Extended Case Method, supported by techniques such as semi-structured interviews with key actors of the campaign, participant-observation and ethnographic notes-taking, and retrieval of available scientific/grey literature. This chapter also addresses the possible critiques and limitations of this research methodology.
- Chapter two focuses on the preparation and official launching of the Portuguese campaign. To do that, I start by presenting the national context from which the campaign emerged, taking into account the double perspective of vulnerability to climate change and jobs crisis. Presenting such context is important since the campaign's objective is to address both crises simultaneously. After that, I present the actors involved in the campaign and then analyze the preparation, the official launching and the post-official launching activities.

³ Originally called empregos climáticos (as it can be seen in some initial documents of the campaign), the name was later on (after the official launching) changed to 'empregos para o clíma', and the campaigners justify this change by the fact that, in Portuguese, 'empregos climáticos' can include even jobs created in the refrigerating systems, construction and maintenance of refrigerators and other cooling materials.

• Chapter three analyses the strengths and challenges of the Portuguese campaign. Even though the campaign is still quite new and in its implementation phase, it nevertheless already gives opportunities for an evaluation. This evaluative analysis then takes into account what, from the structural, financial and material perspectives can be considered as lessons learnt from the campaign. The second moment of this chapter analyses the loopholes and areas of improvement.

The analysis done along these nine chapters is instrumental not only in validating or invalidating the research hypotheses mentioned earlier, but above all in pursuing my initial research objectives, namely: 1) To explore the reasons underlying the current difficulties faced by the international community in putting in place effective instruments to fight climate change; 2) To investigate alternatives that are put forward by non-State actors, with the focus on the JT project from Labour movement and climate justice approach from climate justice movements; 3) To investigate the climate jobs campaign as an initiative that articulates labour, social and climate justice demands into a single struggle for JT to a low carbon or post-carbon economy.

In the concluding chapter, I draw the lines among the three parts and present the strengths and challenges of the current global fight against climate change and the climatopolitics from below. To do that, I present the main results of my investigation on the current failing global climate regime, the global mobilizations in the age of climate change, as well as the alternative solutions proposed by labour and climate justice movement. Those results are then critically confronted with the initial research hypotheses to validate or invalidate them. This chapter ends with a highlight of the main lessons that can be drawn both from the current failing climate regime and the emerging climate justice climate politics from below.

PART I

GLOBAL CLIMATOPOLITICS AND ITS CRITIQUE

Mutations in the global climate have always interrupted the normal functioning of the natural cycles of our planet. In fact, the transition from one geological era to another was generally marked by a new climatic phenomenon, calling for new ways of doing things, as well as a general adaptation of the systems to the new climate reality. However, these climatic changes generally took place at very long intervals and were always due to other natural phenomena which, while arising, disrupted the atmospheric system and caused climatic changes marked either by heat waves or cooling of the globe. This explains why our planet has always oscillated between cold eras and the hot eras.

However, in recent decades, our planet has undergone a notable climate change. This phenomenon which is of concern to the international community can no longer be attributed to the functioning of natural cycles but to human activity, since it is observed that this mutation not only occurs at relatively short intervals, but it is also a consequence of the atmospheric concentrations of GHGs which have drastically increased due to industrial revolution. Thus, progressively, the two phenomena have been linked, and this is the starting point of the international awareness of the current climate change that is all the more worrying because it is the result of the human activities, and requires human intervention to be stabilized. That is why, with the alerts of the scientific community, political leaders finally started taking initiatives to combat the global climate crisis under the canopy of the UN-led institution known as United Nations Framework Convention on Climate Change (UNFCCC). Unfortunately, after more than two decades, evidences show that world governments have not succeeded in reducing the level of GHG emissions; on the contrary, those emissions tend to increase. That is why, in the first part of this thesis I will try to give an account of such failure. The research question that will orientate me is the following: Why has the current model of climate negotiations and the resulting global climate regime failed to deliver effective and equitable change? In order to provide an answer to this question, I will focus on the analysis of the implementational aspect of the current global climate regime (dominated by market-based approaches) and on its procedural aspect, i.e. the global climate decision-making processes (dominated by Statecentered negotiations). Investigating these two aspects will help understand why the current climate regime has so far failed to deliver the expected results.

CHAPTER ONE

NATURE ON THE SHELVES: CARBON TRADING DOGMA AND MARKET-BASED MECHANISMS UNDER THE UNFCCC

This chapter will be devoted to an analysis of the market mechanisms that govern the current global climate regime, and to a critique of the process of commodification of nature that underlies it. In order to understand how we have reached this point, I will organize my analysis in three main parts: Part one will focus on the Payment for Environmental Services (PES) as an ideological background from which the idea of nature valuation emerged. Initially put in place with the aim of fostering the protection of the environment, economic valuation resulted in further commodification of nature, leading to the predominance of market mechanisms that I will present in the second part of the chapter. The last part will be dedicated to the analysis of the notion of *carbon trading dogma*. In fact, the development and implementation of national, regional and global carbon market mechanisms nurtured and enhanced the current dominant belief according to which only the capitalist market can help solve the climate crisis that the capitalist modes of production and consumption created.

1- Environmental Services: From valuation ideal to nature commodification

The current climate crisis is nothing else than the result of an uncontrolled and unsustainable system of exploitation, production and consumption inherited from the capitalist system. The ongoing climate regime, dominated by the continuous attempts to put in place market-based mechanisms, clearly demonstrates that the international community is basically trusting and relying on the market to regulate and solve the climate

crisis. These attempts are basically the result of the economic valuation of nature inherited from the PES ideologies and schemes.

In order to better understand the current market-based mechanisms dominating the global climate regime, it is important to situate them in the broader context of PES and on the resulting economic valuation. In fact, ecosystem services can be understood as the benefits obtained from nature that satisfies human needs and simultaneously fulfills other species' demands and needs (Daily, 1997; Costanza et al., 1997; Millennium Ecosystem Assessment, 2005). On its side, "the term "Payment for Environmental Services", or PES, is used to describe many different arrangements to pay for a certain practice that will protect or restore some function or process of nature." (Kill, 2015:3) Such mechanism, according to Rui Santos is mostly concerned with three main categories of environmental services:

- Water quality and quantity, often including soil conservation measures in order to control erosion and sediment loads in rivers and reservoirs and to reduce the risk of land slides and flooding;
- Carbon sequestration (and in some cases protection of carbon storage) to respond to demand from the voluntary and regulatory greenhouse gas emissions markets;
- Biodiversity conservation, by sponsoring the conservation of areas of important biodiversity (in buffer zones of protected areas, biological corridors or even in remnant patches of native vegetation in productive farms) and protecting agricultural biodiversity. (Santos, 2015)

Wunder goes further to include a fourth category termed as "landscape beauty (e.g. a tourism operator paying a local community not to hunt in a forest being used for tourists' wildlife viewing)." (2005:2) This shows therefore that the PES is a multi-categories mechanism that, just like nature to which it is applied, cannot be determined in an exhaustive way.

The concept of environmental services (ES) emerged from the utilitarian framing of ecosystem functions in the 1970s (Corbera, 2011), and was seen to be a better way to promote biodiversity conservation, by increasing public awareness for the recognition and valorization of nature, given the ecological and social services it renders to both human and non-humans (Westman 1977; Ehrlich and Ehrlich 1981; de Groot 1987; Gómez-Baggethun et al., 2010). According to Vira and Adams (2008), quoted by Esteve Corbera, ES are "flows, derived from stocks of natural resources, recognized as key elements of wealth along physical, financial, human, and social capital" (in Corbera, 2011:2). Figure 1

below summarizes the history of the birth and evolution of the concept of environmental services within the modern neoliberal context.

ES settled in the policy The literature starts framing beneficial **Expansion of market** Mainstreaming of ES ecosystem functions as ecosystem nvironmentalism in the sustainability agenda, and increasing services to highlight societal promotion of payment privatization cycle sciences literature (late 1980s) dependence on ecosystems (1970s) (1990s) schemes (early 2000s) 1990 2000 2009 ORIGINS AND GESTATION OF THE MODERN ES CONCEPT ES IN REGULAR SCIENTIFIC AGENDA ES IN DECISION-MAKING Georgescu-G. Daily Oil Postdam Initiative Roegen -WCFD WRI Daly Natural Nature's Crisis Entropy Law TEEB (2007) Especial foundation Report-Capital services (1997) economic Beyond GDP (2007) (1973)'Sustainable (1992)Issue of (1982)Costanza et al. process (1971) Development ES in Paper in Nature I. Sachs (1987)Ecological MA follow-up & H.T. Odum. Beijer Program (1997) suggest eco-Martinez-Alier Environment, **Embodied** on Biodiversity toolkit (2007) PES launched development MA (2002)**Ecological** power & energy of (early 1990s) in Costa Rica concept reports Stern report society (1971) services (1980) (1997)Crutzen & (1974)results Economics of climate (1987) Pearce et al. weak Daly steady I 2nd Oil Crisis Stoermer (2000) (2005) change (2006) sustainability and Anthropocene Stockholm EU emission trading natural capital (1979)Conference economics Millennium (1989)system (2005) (1972)(1977)Passet -Development Foundation of Release of the MA Global L'economique Meadows -Limits to Goals (2000) (2003)the ISEE biodiversity growth report (1972) et le vivant (1989) assessment (1979)UN - Integrated System (1993)of Environmental Hardin - The tragedy of the Economic Accounts commons (1968) (2003)

Figure 1: Stages in the modern history of Ecosystem Services

Source: (Gómez-Baggethun et al., 2009:1213)

According to Rui Santos, the PES scheme was conceived as a political tool with several advantages, mainly:

- Potential to raise awareness of the values of biodiversity and ecosystems.
- Opportunity to engage previously uninvolved actors (especially in the private sector) in conservation activities.
- Opportunities for communities to improve their livelihoods through access to new markets.
- Potential platform to integrate conservation and climate efforts into a common policy framework.
- Potential to increase collaboration amongst Multilateral Environmental Agreements, in the international context.
- Facilitates the transition from an economy of production to an economy of stewardship. (Santos, 2015)

It is important to mention that the introduction of the environmental services idea in the global political agenda and debates was enhanced by the publication of the Millennium Environmental Assessment (MEA), a report published in 2003 under the initiative of the United Nations, and that included the inputs of more than 1360 experts worldwide. According to the MEA, ecosystems services can be classified in four main categories,

namely: 1) Provisioning services, 2) regulating services, 3) cultural services, and 4) supporting services. Those services rendered both to humans and non-humans are best summarized in the Table 1 below.

Table 1: Types of Ecosystem Services

	Forests	Oceans	Cultivated/
			Agricultural Lands
Environmental	• Food	• Food	• Food
Goods	• Fresh water		• Fuel
	• Fuel		• Fiber
	• Fiber		
Regulating Services	Climate regulation	Climate regulation	Climate regulation
	Flood regulation	Disease regulation	Water purifi cation
	Disease regulation		
	Water purifi cation		
Supporting Services	Nutrient cycling	Nutrient cycling	Nutrient cycling
	Soil formation	Primary production	Soil formation
Cultural Services	Aesthetic	Aesthetic	Aesthetic
	Spiritual	• Spiritual	• Educational
	• Educational	• Educational	
	Recreational	Recreational	

Source: (Millennium Ecosystem Assessment, 2005)

Equally, with the increasing preoccupation for natural resource conservation and their unsustainable exploitation, many methods to estimate the economic value of those services were developed (Costanza et al., 1997), and nature stopped to be considered merely as a place, the "nature found in the surrounding pastoral countryside [...] the interpretive frame through which people there measure their lives, evaluate others, take political positions, and just make sense" (Gieryn, 2000:467), or the essential external entity that precedes and cannot be properly defined or understood by humanity, because it is related to the idea of transcendence, what Williams calls "primitive condition before human society" (Williams 1980:72); nature started to be viewed through the neoliberal capitalist lenses. In fact, the way "we position ourselves in our view of the natural world is deeply entangled with the way we view the social world. [...] Every society extends its own perception of itself into nature." (Bookchin, 1986:8) In our current society dominated by the market, where relations are often defined in terms of exchange and purchase of

goods and services, it became easy to project the social perceptions on nature and view it as a provider of services that could be paid for as any other service. It is important to mention that the transition from the use-oriented valuation to the monetary valuation of nature was rendered possible by the commodification process initiated through the different institutional and ideological PES arrangements both at the international, national and sub-national levels. As observed by Kallis et al. "monetary valuations are [...] part of broader commodification processes, which involve symbolic, institutional, intellectual, discursive, and technological changes that reshape the ways humans conceive and relate to nature." (2013:100) Based on this vision, we can conclude that the PES ideology, its implementation in many parts of the world, and the institutional arrangements put in place under the UN and other national and sub-national environments was already part of the transition leading from nature as use value to nature as exchange value. Such transition cannot be separated from the expansion of capitalism through its process of accumulation by dispossession, aggravated by neoliberalism. In fact, "expanding commodification [..] is a structural tendency of capitalism since this way capital overcomes (temporarily) its crises." (Kallis et al., 2013:3) In such expansion mission the value of all things, people and social relations are turned into money (Duai, 2009) in general and, more specifically when it comes to nature, "monetary valuation [...] expands its domain and becomes the dominant language through which values about ecosystems and other components of the natural environment are being expressed." (Kallis et al., 2013:98) Under capitalism "there is a drive to reduce all forms of value and valuation into monetary (exchange) values" (Idem.), and this at the expense of other rationalities and non-monetary form valuation.

Even though Kallis et al. in their article advocate for the use of monetary valuation of nature in specific contexts, for example when evaluating "whether large corporations should pay for their damages upon indigenous communities, whether democratic municipal utilities should charge for water, or whether it is good to subsidize communities for conserving ecosystems or keeping oil in the ground" (Kallis et al., 2013:103), I on the opposite agree with Kill (2015) that monetary valuation of nature is counter-productive for local communities and for nature itself. It is important to make a difference between nature, understood as a complex network of non-exhaustive relations and inter-relations, and derivatives of nature, such as water, whose production is within the natural realm, and whose reproduction can be related to the capitalist mode of expansion, because of the

intervention of corporations in the treatment process to render it drinkable. Considering the case of hydric resources, water in itself is a derivative of nature that cannot be valued. Nevertheless, to render it consumable requires a process that involves products for the treatment and a workforce. It is this second aspect related to its treatment that opens a way to the capitalist reproduction of water, and that can be valued, as products used for the treatment of waters have prices and the workforce needs wages. But at the end the main questions remain: What exactly are we valuing? How? And why? Since we can still argue that the treatment process to render water drinkable has become an obligatory step nowadays because of the previous direct pollution of open waters by industrial processes on one side and, on the other side, their indirect pollution through soil pollution which affects the quality of groundwater. The responsibility of polluters is an important issue that needs to be taken into consideration when determining the monetary value of drinking water. Additionally, I argue that for communities which are not used to our monetary references, talking of monetary valuation has no meaning. For example, what is the essence of giving a monetary value to forests related services for indigenous people living in, and for whom the forest represents everything, when we know that most indigenous communities do not share our monetary and financial rationalities, and that euros, dollars or whatever currency we use mean very little or nothing to them and represent nothing in their cosmogony? The money given to them in exchange of their living milieu and their resources does not represent anything for some of them, since in their daily lives, mostly those who do not live in urban settings, they do not use it in exchange of goods and services as we do.

Nevertheless, despite the unsolved issues raised by the monetary valuation of environmental services, many PES initiatives, both from governments and private sector, started to be developed and implemented around the world. Example of public funded PES can include among other the cases of New York and Vancouver city where authorities paid the watershed owners located outsides the cities, so that they can preserve their lands; The second example refers to the government of Costa Rica that paid land owners so that they can preserve their lands and stop deforestation, and the third example is the EU Common Agricultural Policy that guarantees payment to farmers for the protection of biodiversity. Private funded PES initiatives may include cases such as Coca-Cola paying for water

protection and restoration as compensation for damage caused to communities' waters around the world (World Rainforest Movement, 2014).

Nowadays, the concept of PES is widespread and is used in multiple contexts to support financial incentive-based relations among parties. In such cases, rich parties pay the local populations and communities to abstain from using specific and pre-defined natural resources.

Finally, with the increased influence of the market on one side and conservationism⁴ on the other side, analyses of the monetary value of ecosystems services multiplied, and the PES became an instrument to transform legislation into tradable instruments (Kill, 2015) thus justifying the economic valuation of nature, in order to better incorporate it in the green economy. In fact, in a context dominated by the perverse effect of the financial and economic crisis, "the green economy can be defined as a capitalist attempt to overcome such financial turmoil based on the incorporation of the environmental limit as a new terrain for accumulation and valorization" (Leonardi, 2017b); such approach is based on the assumption that, despite evidence of the current failure of the capitalist model of development that has generated the global climate crisis, we can continue and even accelerate economic growth by transforming nature into an element of profit within the current neoliberal capitalist model. In this context, as Leonardi argues, environmental protection is no more considered as a "block to valorization, as an additional cost for companies" or as a constraint to economic exchange, but as an opportunity for profits making and capital accumulation, or as a driver of economic competition. In short, in the climate change context, green economy can be understood as a "form of climate capitalism that combines decarbonization with a fair way of managing that transformation [to a low carbon economy] globally." (Newell and Paterson, 2010:183)

⁴ The concept *conservationist* generically refers to individuals and organizations that actively fight against the waste of natural resources and the loss of biodiversity. Most conservationist organizations endorse the commodification of resources as an efficient mechanism for conservation. In order for conservation measures to be effective, some advocate that the management of resources should be entrusted to local authorities and other non-state actors, since this privatization allows for a total control by the market (Fletcher, 2010). Büscher and Fletcher (2017) criticize that reliance on the market by pointing out that, by not being so radical with regards to the need of system change, and by advocating market solutions, conservationists prioritize an approach that is more problematic to environmental protection and that ends up being more disastrous for the environment they aim at protecting.

In order to reach its goal of conciliating economic growth with environmental protection, the green economy gives an important place to biomimicry, that is the "imitation of natural models, systems and elements to reduce negative environmental impacts of productive activities without sacrificing economic growth" (Leonardi, 2017b); such biomimicry relies on the use of biotechnology and other environmental restoration methods. This model is the one that was adopted by the UN and codified under the 'sustainable development' concept and which, according to the UN deployment, can be rendered possible through the 17 sustainable development goals. Under this framework and with the help of economic valuation techniques, the green economy is in the "process of redefining the previous conception of nature as a complex web of inter-related and everchanging relationships into an image of nature as a provider of measurable services." (Kill, 2015:7) As such, Kill explains, the economic value attached to ecosystems "is used as the basis for creating tradable instruments, such as carbon or biodiversity credits."(Idem.)

In short: We cannot count on the capitalist market to solve the problem it created. If the climate crisis is the consequence of the capitalist modes of production and consumption, then the survival of that model definitely relies on continuous economic growth (Blauwhof, 2012), that can only be sustained by the massive use of fossil fuels, and the systematic and unsustainable use of natural resources. Evidence that we cannot rely on the current market oriented capitalist model to solve the climate crisis comes from the current prevailing carbon trading itself. In fact, at the moment when a transition from fossil fuel should be considered as unavoidable, relying on the market is rendering the case difficult by creating workaround (usually referred to as *false solutions*) instead of real solutions. An example of workaround is the European Union Emissions Trading System (EUETS). In fact, since

September 2009 companies covered by the EUETS began moving toward using their surplus European Union Allowances (EUAs) as collateral when trading oil [and] ICE Clear Europe for example, the clearing-house for the Intercontinental Exchange (ICE), has started to accept both EUETS allowances and CDM offset credits as partial payment of margin fees in the trade of energy contracts. (Fern, 2016)

In this regards, surplus allowances are no more only sold, but can also be used as collateral when trading other commodities. This situation instead leading to the reduction of emissions, leads to the creation of new emissions pathways. More to that, data provided by the German Federal Ministry of Environment, Nature conservation, Building and

Nuclear Security (2015) show that, despite the market-oriented mechanisms put in place, global greenhouse gas emissions, by 2010, had risen by around 24 percent compared to the 1990 levels during the first commitment period of the Kyoto protocol (2008-2012). The 2015 data show an average rise of 2.5%, implying an increase of 65% above 1990 levels because of the economic growth in both China and India (King, 2015). Such data demonstrate how, instead of solving the crisis it generated, the current capitalist development models further introduce us in the market cycles, fossil fuel dependent growth and GHG emissions increase.

Many scholars now consider climate change as "the greatest collective action problem the world has ever faced" (Barrett, 2008:257), a "tragedy of capital accumulation' based on nature's pseudo-commodity status or, in more conventional terms, a 'tragedy of the environmental commons' arising from 'missing markets'" (Castree, 2009:201). Despite, this preoccupying situation of climate change, the current climate regime is still dominated by nature valuation, for further marketization. According to Centemeri

"Environmental valuation is a matter of putting a (market) price on the environment. The virtue of pricing environmental goods and functions is to allow commensuration between alternative options or courses of action. According to the utilitarian approach, which provides the theoretical basis of this mainstream economic approach, commensuration is a prerequisite for rational decisions. (Centemeri, 2015:4-5)

In fact, "once nature has become describable as a provider of measurable ecosystem service units, units from different places and of different quality can be compared and equivalences between them can be negotiated." (Kill, 2015:6) For the defenders of this valuation, it will not only contribute to the protection of the environments by putting in place restrictive legal mechanisms for access to natural resources, but also and above all, it will help value and respect nature more. According to Costanza et al. (1997) "Because ecosystem services are not fully 'captured' in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital, they are often given too little weight in policy decisions." Nevertheless, the real valuation of nature cannot be a result of its economic commodification. Nature, in reality, cannot be fully considered from a solely economic perspective as it implies at the same time a place, resources and symbols. In fact, visibility to the economic eye might make it treasured in decision-making, but it will not help consider the social, cultural and spiritual values and

relationships of nature and what it contains, and it will continue to enhance the risks of nature destruction (Kill, 2015).

The following statement by a member of an *adivasi* (tribal) community in the Narmada Valley in Western India to whom a compensation was offered for relocation as a consequence of the construction of the Sardar Sarovar Dam, is quite symptomatic of the importance of the non-valuation in monetary terms and incommensurability of some environmental services offered by nature to its occupants:

You tell us to take compensation. What is the state compensating us for? For our land, for our fields, for the trees along our fields? But we don't live only by this. Are you going to compensate us for our forest? [...] Or are you going to compensate us for our great river – for her fish, her water, for vegetables that grow along her banks, for the joy of living beside her? What is the price of this? [...] How are you compensating us for our fields – we didn't buy this land; our forefathers cleared it and settled here. What is the price of this land? Our gods, the support of those who are our kin – what price do you have for these? Our adivasi life – what price do you put on it? (Cited by Kill, 2015:15)

The failure to deliver results in terms of global emissions reduction, despite the current attractiveness and expansion of market-based approaches in the global warming decision arena, can to an extent be attributed to the impossibility of commodifying and attributing universally accepted exchange values, and the incommensurability of nature. Laura Centemeri (2015) provides a very valuable analysis of this problem of incommensurability. According to her, the problem can be organized from a double perspective: The Order incommensurability that refers in the public space dimension and therefore to the conception of resources as common goods, and the Radical Incommensurability that refers to a personal and individualistic dimension leading to the understanding of resources as familiar engagement. If in the first case the problem is related mostly on 'how' and not on 'whether' to commensurate, in the second case the very idea of commensuration is unsustainable. Equally, if in the case of Order commensurability the problem can be solved either by one point of view dominating and imposing itself, or by a composite solution based on negotiations over the different point of views, in the case of Radical Incommensurability, it is impossible to measure or even trade-off, unless forced to do so as a painful and 'tragic choice', and this because nothing can compensate the loss of what has no real, not even a conventional equivalent. However, it is important to point out that this approach does not solve the issue in incommensurability. In fact, being in the first or in the second case, there are still elements

that are put aside in the commensurability process, either by the force of convention and collectively agreed choices in the case of the *Order incommensurability*, or forcefully and by imposition in the case of *Radical Incommensurability*. This situation, at the end of the day renders a full commensurability impossible. That is why I argue that commensurability is always a situated and conventionally imposed act, since nature, even in the common goods vision, always implies a set of personal relations and non-measurable proximity with each member of the group. This is what gives meaning and can justify the various forms of environmentalisms found around the world.

Nevertheless, despites such incommensurability the current global climate regime is mostly dominated by market based mechanisms. Global carbon trading mechanisms put in place aim at better transforming nature into mere commodity and easily inserting climate concerns in the global neoliberal market, with the belief that this will help parties to the convention reduce global emissions, and specifically parties to Annex I to individually meet their GHG emission targets as set by the Kyoto protocol. It is important to recall that under the Kyoto protocol, all the Annex I countries (listed in Annex B of the protocol) that include all the developed countries in the Organization for Economic Cooperation and Development (OEDC), and all the economies in transition have emissions limitations targets. All the other parties usually referred to as non-Annex I parties, are encouraged to limit their emissions, but are not subjected to any binding commitment and do not have any limitation target. As such besides meeting the emission target, there is a belief that this will help to cost-effectively fight climate change at the global level. For the purpose of this research, and given that it focusses on the global climate arena, I will mostly work on the basis of the global market-based mechanisms available within the UNFCCC framework.

2- Carbon trading mechanisms under the UNFCCC

The current global climate arena is completely dominated by market approaches and mechanisms. Those market approaches were institutionally consecrated by the Kyoto protocol under its three flexible mechanisms (International Emission Trading, Clean Development Mechanism and Join Implementation), the Bali Roadmap under the name Reduction of Emissions due to Deforestation and forest Degradation (REDD) mechanism and recently the Paris Agreement (2015) under the name Internationally Transferred

Mitigation Outcomes (ITMOs). They form the dominant line of global climate policies and public actions, and seem to be the only way forward, without any possibility of "an alternative thinking of alternatives." (Santos, 2013)

Nevertheless, if the commercialization of carbon emissions and the purchase of polluting rights are so dominant today, it is important to mention that their development is relatively recent. In fact, the precursor to the idea of carbon markets, that is the emergence of the ideology according to which we can control emissions through the use of market mechanisms, can be traced back to the 1960s, when the idea of internalizing the costs of pollution through taxation and property rights unsurprisingly first emerged from economists (MacKenzie, 2008; Tokar, 2014; Koch, 2014) as a supposedly cost-efficient alternative to government intervention and regulations. In fact, when States intervene through regulations and other control mechanisms, they force polluters and corporations to take actions to reduce their emissions, and not to go beyond a certain emission standard. On their side market mechanisms offer more flexibility and incentives to polluters and corporations. Therefore, in the first context policy options are determined by States, and corporations' investments in low carbon technologies must be in line with those States' pre-determined policy options, while in the second context all is left in the hands of the private sector and the market that fundamentally determine both the policy and technological options based on the profits they are liable to generate for the investors and inventors (Center for Climate and Energy Solutions, 2015).

Under the influence of those economists' speculations, a first practical and apparently successful attempt was implemented in the United States, with the sulphur dioxide (SO₂) trading mechanism established in the 1990s. In the late 1980s there was a great concern about the damaging effect of acid rain on aquatic ecosystems, forests and buildings both in the northern USA and Southern Canada. Since acid rains results from the SO₂, and to a lesser extend nitrogen oxide (NO), mostly from coal-fired and electric-power plants, the USA government decided to put the SO₂ allowance-trading in place to encourage coal-fired and electric-power plants corporation to reduce their emissions.

At the beginning of the program, the government (freely) allocated allowances, denominated in tons of SO₂ emissions, to power plants covered by the law, according to formulas contained in the legislation and elaborated upon by regulation. If annual emissions at a regulated facility exceeded the allowances allocated to that facility, the facility owner could either buy allowances or reduce emissions, whether by installing pollution controls, changing the mix of fuels

used to operate the facility, or by scaling back operations. If emissions at a regulated facility were reduced below its allowance allocation, the facility owner could sell the extra allowances or bank them for future use; these opportunities created incentives to find ways to reduce emissions at the lowest cost. (Chan et al., 2012:11)

This therefore came as market-friendly attempt to reduce the SO₂ emissions from coal-fired power stations in order to reduce the occurrence of acid rain (Burtraw and Szambelan, 2009). In fact, after several failed attempts to pass bills in the US congress to address the problem in the 1980s, the successful 10% reduction of SO₂ emissions between 1995 and 2003 came as a convincing fact, leading to market environmentalism and subsequently shaping the Clinton administration's insistence on market mechanisms not only at the federal level, but also and above all at the international level, mostly in the context of global climate negotiations (Lohmann, 2010). That is why for O'Connor,

Emissions trading was first seriously promoted in the US in the 1980s and was regarded by many bourgeois economists and policy makers as a potential means of avoiding placing any additional regulatory burdens on corporate polluters. The Clinton administration continued to promote this position throughout the 1990s, and emissions trading mechanisms were built into the heart of the 1997 Kyoto Protocol at the insistence of the US and its chief negotiator, then vice president Al Gore (O'Connor, 2009)

It was under the pressure of the US delegation that the market-based instruments were developed at the global level and introduced in the 1997 Kyoto Protocol (Searles, 1998; O'Connor, 2009; Koch, 2014; Leonardi, 2017a). Al Gore, then US Vice President, made it clear during the Kyoto negotiations that the US would only agree to the Protocol if the "trading of 'rights to pollute" was included and implemented, and the mandated emissions reduction were lower (Tokar, 2010). Beside that influence of the US, the ideology of the market became stronger because of the role of the International Emissions Trading Association (IETA) which invested its time and resources and sent approximately 1500 lobbyists to encourage the use of carbon trading mechanisms and their inclusion in the global protocol (Fernandes and Girard, 2011). This helped to consolidate the idea of using markets and property rights in attempts to prevent climate change at the global level and, as O'Connor (2009) argues, "essentially, emissions trading schemes represent an attempt to fashion a "free market" solution to a crisis that is itself caused by the anarchic and destructive operations of the capitalist market."

Put in place at the international level by the Kyoto protocol and also known as flexible mechanisms, the three instituted market approaches, the current debated REDD mechanism, and the newly created and still to be developed mechanism known as ITMOs under the Paris agreement, all aim at better inserting climate concerns in the global neoliberal market, with the belief that this will help parties to the convention reach their engagements in terms of limitation of GHGs emissions, and cost-effectively fighting climate change at the global level.

Before tackling the global trading schemes, it is important to note that there are several emission trading schemes developed and implemented around the world. In the Table 2, below De Jong (2015) summarizes the most important ETS currently implemented, comparing them with the largest and most elaborated one which is the European Union Emission Trade Scheme (EUETS).

Table 2: Some important Emission Trading Systems around the World

	Stringency of target compatible	Use of offsets	Price/supply control	Compatibility with EU ETS?
EUETS	CO2 reduction compared to 1990 is 20% by 2020 (LRF 1.74%) and 40% by 2030 (LRF 2.2%).	No use of international offset after 2020	Supply control: market stability reserve (MSR). No price controls	
Swiss ETS	Same 2020 target as the EU (LRF1.74%). Lower overall domestic 2030 target (30%).	Swiss target allows up to 20% international offsets, unclear if offsets are allowed in Swiss ETS post-2020.	No price or supply control	Unclear yet; depends on post- 2020 stringency of Swiss ETS + use of offset, and the effect on EU' supply control (MSR).
Quebec- California ETS	California has less stringent target of stabilizing 1990 emissions by 2020, Quebec has same 2020 target as EU.	California allows offsets from forest sinks.	There is an auction floor price and soft price ceiling.	No; California allows forestry offsets and there are price controls.
Chinese ETS pilots	Chinas has a relative target of 40-45% CO2 intensity reduction by 2020.	No, forestry offsets allowed in certain pilots.	All pilots have price stabilization measures.	No; Chinese pilots have no absolute caps, allow forestry offsets and have price controls.
South Korea ETS	South Korea has a relative target of 30% reduction compared to	CCS offsets and international offsets (post- 2020) are	Government can intervene in market	No; South-Korea has lower ambition, allows international

	BAU by 2020.	allowed	for price stabilization.	offsets and has price controls.
New Zealand ETS	There is no ETS cap, land use sector is included, only 1 credit needed for every 2 tonnes of CO2.	There is unlimited access to international offsets.	There is a fixed price option (price ceiling).	No; New-Zealand has no cap, allows unlimited international offsets, and has a price ceiling.
Kazakhsta n ETS	Hardly any emission reduproblems with verification domestic offsets allowed.	No; Kazakhstan has lower ambition, no clear price signal, little trades.		
US RGGI	Covers power sector only, 2.5% annual reduction up to 2020, automatic removal surplus allowances.	Offsets from afforestation and agriculture are allowed.	There is an auction floor price and implicit price ceiling.	No; US RGGI allows forestry offsets and has price controls.

Source: (De Jong, 2015b:6)

For the purpose of this research, as earlier mentioned, I will mostly work on the basis of the global market-based mechanisms available within the UNFCCC framework. Such option is based on the fact that the objective of this research is to analyze the underlying logics behind the carbon trading rather than the policy differences it entails when implemented in different contexts. It is equally important to mention that the purpose of this work is to approach the common ideology and rationale behind the use of the market to solve the global warming crisis from a critical perspective. That is why, in the subsequent sections, I will not analyze the politico-legal, technical, procedural and implementation-related aspects of the global market-based mechanisms, but instead I will present the ideals and ideological features sustaining those mechanisms from a critical perspective.

2.a - The International Emission Trading System

Commonly known as Emissions trading, this market mechanism is defined under two different modalities in the Kyoto Protocol.

In fact, in the Article 4, the protocol defines the mechanism for aggregated parties. All the parties eligible to come together under this modality should be Annex I parties. They then decide to come together under a specific agreement, or under the umbrella of a regional organization of economic integration to put in place a common carbon market. In the above article, we can read the following:

- 1. Any Parties included in Annex I that have reached an agreement to fulfill their commitments under Article 3 jointly, shall be deemed to have met those commitments provided that their total combined aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of Article 3. The respective emission level allocated to each of the Parties to the agreement shall be set out in that agreement.
- 2. The Parties to any such agreement shall notify the secretariat of the terms of the agreement on the date of deposit of their instruments of ratification, acceptance or approval of this Protocol, or accession thereto. The secretariat shall in turn inform the Parties and signatories to the Convention of the terms of the agreement.
- 3. Any such agreement shall remain in operation for the duration of the commitment period specified in Article 3, paragraph 7.
- 4. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization, any alteration in the composition of the organization after adoption of this Protocol shall not affect existing commitments under this Protocol. Any alteration in the composition of the organization shall only apply for the purposes of those commitments under Article 3 that are adopted subsequent to that alteration.
- 5. In the event of failure by the Parties to such an agreement to achieve their total combined level of emission reductions, each Party to that agreement shall be responsible for its own level of emissions set out in the agreement.
- 6. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization which is itself a Party to this Protocol, each member State of that regional economic integration organization individually, and together with the regional economic integration organization acting in accordance with Article 24, shall, in the event of failure to achieve the total combined level of emission reductions, be responsible for its level of emissions as notified in accordance with this Article.

Through this article 4, the protocol clearly invites parties to come together, either on a regional, economic or any other interest-based entity to put in place a sort of particular and consensual carbon market inside the global carbon market. Here, they can as well set their own emission targets, and sell or purchase emission rights following the basic rules of the market. So far only the European Union has opted and is currently applying the emissions trading under this modality. As such, the EUETS uses the European Union Allowance Units (EAUs), and each EAU equals to one Assigned Amount Unit of the Kyoto. This scheme went operational on the 1st January 2005, even though a carbon market was in existence at the European regional level since 2003.

On the other side, the same protocol, in its Article 17 institutes the international carbon trading mechanism for individual parties in the following terms:

The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading. The Parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article.

In both cases, parties can obtain their carbon credits in two ways: 1) As Assigned Amount Unit (AAU), also known as 'Kyoto unit' or allowances. Such credit is the equivalent of one metric tonne of carbon dioxide that can be freely traded in the carbon market. 2) As a Removal Unit (RMU) or credits which represent a right to emit one metric tonne of greenhouse gases absorbed by a removal or carbon sink activity in an Annex I country. At this level, to be simply said, country A of the Annex I can implement an activity or project leading to the removal of carbon or to it sinking in Country B of the same annex. At the end of the process, country A is attributed the equivalent of carbon credits that was absorbed or removed in country B and can therefore trade it under this mechanism.

In short, we can say that this mechanism allows countries that have emission units to spare - emissions permitted them but not used - to sell this excess capacity to countries that are over their targets. This mechanism is the perfect example of the application of the free market law of "demand and supply" to the climate policy arena. In fact, here the countries having extra and non-used carbon units can bargain and trade them, exchanging them with the best monetary offer. Following this,

In the UNFCCC negotiations the UK, EU, USA and others were suggesting that they could use carbon trading to buy carbon from developing countries to meet these targets and in doing so help developed countries meet their reduction targets. This neat arrangement conveniently ignores the fact that the IPCC figures require emissions reductions in both places, not one or the other." (Childs, 2012:16)

Unlike the other flexibility mechanisms that function more on project basis, international emission trading functions on suppliers and buyers basis. in this context, some supply their "carbon extra resources" to buyers who are looking for extra polluting opportunities, enlarging therefore their emission targets through the acquisition of extra polluting chances on a bargaining basis.

2.b- Clean Development Mechanism (CDM)

The institutionalization and the objective of the Clean Development Mechanism are defined in Article 12 of the Kyoto Protocol in the following terms:

- 2. The purpose of the Clean Development Mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.
- 3. Under the Clean Development Mechanism: (a) Parties not included in Annex I will benefit from project activities resulting in certified emission reductions; and (b) Parties included in Annex I may use the certified emission reductions accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3, as determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol.
- 4. The Clean Development Mechanism shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Protocol and be supervised by an executive board of the clean development mechanism.
- 5. Emission reductions resulting from each project activity shall be certified by operational entities to be designated by the Conference of the Parties serving as the meeting of the Parties to this Protocol, on the basis of: (a) Voluntary participation approved by each Party involved; (b) Real, measurable, and long-term benefits related to the mitigation of climate change; and (c) Reductions in emissions that are additional to any that would occur in the absence of the certified project activity.
- 6. The Clean Development Mechanism shall assist in arranging funding of certified project activities as necessary.

[...]

9. Participation under the clean development mechanism, including in activities mentioned in paragraph 3 (a) above and in the acquisition of certified emission reductions, may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the Clean Development Mechanism.

The above-mentioned article allows a country with an emission reduction commitment under the Protocol (Annex B Party) to implement an emission reduction project in developing countries. Investors can earn saleable Certified Emission Reduction (CER) credits equivalent to one tonne of CO₂, and that can be counted towards meeting Kyoto targets of the Annex B country involved. CERs are a type of emissions unit (or carbon credits) issued by the CDM Executive Board for emission reductions achieved by CDM projects and verified by a DOE (Designated Operational Entity) under the rules of the Kyoto Protocol. In short, "in this context, industrialized countries with GHG reduction commitments are invited to invest in projects that reduce emissions in developing countries

as an alternative to more expensive emission reductions in their own countries." (Böhm et al., 2012:7) Equally, as Kill rightly puts it,

the Clean Development Mechanism, one of the "flexible mechanisms" under the Kyoto Protocol, allowed companies in industrialized countries to pay someone elsewhere in the global South to reduce emissions for them while they exceeded the greenhouse gas emissions limit by continuing to burn fossil fuels as before (and as such). Despite overshooting the limit they could still claim to have complied with their Kyoto Protocol reduction target because they had paid someone elsewhere to make a reduction for them. (Kill, 2015:13)

The CDM aim was to facilitate innovative carbon-mitigation and alternative development projects by drawing in funds from northern greenhouse gas emitters in exchange for permitting their continuing pollution. In that regard,

The idea is, after a cap is placed on total emissions, high-polluting corporations and governments can buy carbon permits from those which don't need so many, or from those willing to part with the permits for a higher price than the profits they would make in production or energy-generating or transport activities. In simple words: the owner of a major polluting source in developed countries (let's say in Europe) can pay a country in the developing world (e.g in Africa or Asia) not to pollute in some way. This is expected to be beneficial for both sides as the owner of the emitting source is allowed to continue emitting while the developing country benefits from money invested e.g. in sustainable energy projects like hydroelectric projects, re-forestation programs or similar. In theory, at the international level, sustainable development is promoted as increased assistance and financial resources are made available for developing and transitional states to develop and protect their environments. (Healy et al., 2015)

As a mechanism, it was basically conceived to accommodate the carbon market relation between rich and developing countries, and literally maintain the pollution capacity of the first by implementing less emitting projects in the latter category. In other words, instead of limiting pollution, it created possibilities of leakages, and shifted the pollution capacities from the global South to the global North through the intervention of the market. In other words, it created a possibility for the global North to postpone it reduction responsibilities by outsourcing them to the global South (Bachram, 2004; Leonardi, 2017a). In the line of this mechanism, developed countries, financial institutions and corporations among others, implement less polluting projects in the global South, to gain emission credits. The emission credits gained can therefore be used directly by the credit owner who has an excessive pollution demand in the global North, or sold in the primary or secondary market. In the primary market, credits are sold directly to other parties or financial institutions in demand, while in the secondary market, credit are bargained between buyers and financial institutions, speculators and other non-project owners who previously bought and banked emission credit while waiting for favorable

market opportunities. Project owners can also bank their credits for future use or trading. More to that, what really matters most are the market opportunities generated and not so much the emission reductions in the real sense of the word. That is why so far the only real winners in emissions markets have been speculators, financiers, consultants (including some in the NGOs) and energy sector hucksters who profit from the sale of national emissions reduction credits. As the air itself becomes privatized and commodified, poor communities across the world suffer, and resources and energy are diverted away from real solutions. In this way the CDM should be seen as a mechanism for avoided responsibility, which counts on claimed reductions in developing countries as equivalent to actual cuts in industrialized countries (Healy et al., 2015).

Another area for massive corruption is the Clean Development Mechanism (CDM), a scheme incorporated into the Kyoto Protocol to involve the so-called developing world in the carbon trade. Corporations involved in projects that supposedly reduce emissions in factories and sites in countries such as China, India, Brazil, and Mexico can generate credits equivalent to the carbon dioxide allegedly prevented from entering the atmosphere. These credits can then be sold back into the trading schemes in the advanced capitalist countries. (O'Connor, 2009)

Based on the above observations, we can easily conclude that the CDM was conceived as nothing else than a mechanism to officially include the parties of the developing world in the global carbon market. By so doing, the international community could ensure that no part of the world is kept away from the carbon market, and no potential sources of emission not covered by market forces, being them localized in the global North or in the global South.

2.c- Joint implementation (JI)

The "Joint Implementation" is the third flexibility mechanism instituted under the Kyoto Protocol. According to Article 6 of the protocol:

- 1. For the purpose of meeting its commitments under Article 3, any Party included in Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that:
- (a) Any such project has the approval of the Parties involved;
- (b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;

- (c) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 5 and 7; and
- (d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article

[...]

3. A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition under this Article of emission reduction units

From the above quoted article, we can see that this mechanism basically allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B) to earn Emission Reduction Units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO2, which can be counted towards meeting its Kyoto target. Unlike the CDM which deals with market relations between developed and developing nations on the projects' basis, JI regulates the carbon market-based relations between developed countries and countries with economies in transition, which are all having GHG emission commitments under the Kyoto protocol. It was conceived as a means for Annex I Parties to avoid domestic action to meet current commitments under the convention (Earth Negotiation Bulletin, 1995). In the case of this mechanism,

Any Annex I country can invest in an emission reduction project (referred to as a "Joint Implementation Project") in any other Annex I country as an alternative to reducing emissions domestically. In this way countries can lower the costs of complying with their Kyoto targets by investing in projects that reduce greenhouse gas emissions in an Annex I country where reducing emissions may be cheaper, and can then use the resulting Emission Reduction Units (ERUs) towards their commitment goal. (Bakker and Francioni, 2014:21)

Projects carried out under the JI mechanism, just as in the other flexibility mechanisms, can be conceived and implemented by any entity legally recognized, as long as they are acting under the canopy of a State party. This disposition of the protocol, open the way for the privatization of the carbon market and its full exploitation by fossil fuel companies and corporations. Equally JI, just like the other two flexible mechanisms instituted under the Kyoto Protocol, does not address the issue of shifted emissions. In fact, what matters here is the interest of companies and parties which can, through projects implemented elsewhere, shift their emissions to a different location in a cheaper way, rather that properly cutting them. Companies and parties involved have as main aim to secure their financial benefits by relocating or exporting their emissions where they have more polluting facilities and rights that can be used locally or sold to those in need of more

polluting options, caring less about the global reductions target. Another issue at stake here is the intangibility and non-palpability of the material being considered for sale.

It is important to mention that activities under the JI have virtually ceased. In fact, since the end of the first commitment period of the Kyoto Protocol in 2012, "project participants are neither seeking approval nor requesting issuance of emission reduction units" (JISC, 2015a:4), and as the Joint Implementation Supervisory Committee (JISC)⁵ justifies, this is because of the delay of countries in signing the Doha amendment to the Kyoto protocol that launched the second commitment period. In fact, ERUs used in the context of JI are generated through the conversion of AAUs. Or with the delay in the implementation of the second commitment period, new AAUs were not assigned to parties, leading therefore to the impossibility of creating new ERUs to be used for new JI projects. Nevertheless, in its 2016-2017 business and management plans the JISC, despite the adoption of the Paris agreement, still hopes for a better future for the JI. According to the Committee, in this time characterized by challenge and uncertainty regarding the future of JI, the "business and management plans seek to adapt to the changing environment of JI by focusing on activities that would result in strategic investment in the future of the mechanism while also ensuring that appropriate operational capacity is maintained." (JISC, 2015b:3) Such hopes are strengthened by the fact that, even after Kyoto, parties can still use the JI mechanism. In that case "any use of JI outside the Kyoto Protocol would require that Parties first agree on the use of market mechanisms, including JI, as part of the 2015 Paris agreement." (JISC, 2015b:4) We have to recall that by the end of the first commitment period, there were many JI projects already being implemented, and some of them were to see their implementation going beyond 2020. In fact, as of August 2014, that is almost two years after the end of the first commitment period, there were still "648 registered JI projects, of which 496 have generated ERUs, almost 857 million dollars in total. Ukraine and Russia account for more than 90% of ERUs issued. They also have the largest share of projects. Poland, Germany, France and Romania account for another 7% of ERUs." (Kollmuss et al., 2015:17) A year later, as of the 31 August 2015, "there were

⁵ The Joint Implementation Supervisory Committee is the official institution set up by the UNFCCC to oversee the implementation of the JI mechanism. As such, it issues accreditations and re-accreditations for the implementation of JI projects, manage the day to day life of the mechanism, verifies the compliance with the JI guidelines for each project and reports to the UNFCCC Secretariat and to the COP.

almost 600 projects in 17 countries. [...] Host Parties have already issued 871 million emission reduction units (ERUs) generated by just under 500 of these projects since 2008." (JISC, 2015b:3) This means that between August 2014 and August 2015, only 48 JI project were completed, several still being on their implementations phases. However, it should be noted that like in the other market mechanisms the environmental benefits of the JI are limited and its impact on global emissions is questionable. As Kollmuss et al. conclude, "despite the huge amount of money it generated [...] [the] use of JI may have enabled global GHG emissions to be about 600 million tonnes of carbon dioxide equivalent (tCO2e) higher than they would have been if countries had met their emissions targets domestically." (2015:5) This situation can be justified by the fact that several companies acting as project owners artificially increased their GHG emissions in order to earn larger emission savings. In this context companies produced more GHG, so as to reduce more, and as a result, earn more for reducing their over-produced emissions. This phenomenon known as "hot air laundering" (Climate Action Network, 2012) is often practice by parties involved in JI projects. A study made on four Russian and one French waste gases incinerating factories by Schneider and Kollmuss (2015) shows that in the case of Russia for example instead of reducing their emissions, the factories literally started generating more waste gases when they started using the Kyoto credit scheme in 2008 and 2010. In one particular plant, there was an increase of 16.9% in the sulfur hexafluoride (SF₂) emissions compared to the 2% observed prior to their engagement in the credit scheme. The authors also observed that data submitted by Russia to the UNFCCC bodies increased significantly with the advent of the JI. With those doubtful data, the country got involved in the JI, and bargained the artificially increased emissions, without any substantial emissions reductions efforts. This type of manipulation did not only happen in Russia, but in Ukraine and in other countries as well, as observed by the previously quoted study made by Kollmuss et al.

The situation observed with the JI, and the other market-based mechanisms under the Kyoto Protocol, demonstrates that turning the volatile carbon emission into measurable entities and subsequently into emission reduction units, is nothing else than a continuous effort to internalize a non-tangible and intangible externality. Those mechanisms had as fundamental mission turning the incommensurable into measurable and tradable, and making sure that all parties, irrespective of their geographical location or economic development standard, are included in the market system under at least one of the modalities, namely:

The International Emission Trading between registered polluters [from the global North]; the Clean Development Mechanism (that encourages offset trade between rich Annex 1 countries and developing countries not bound by emissions caps); and Joint Implementation (which permits investment and participation by high-polluting Annex 1 industries in mitigation projects in transition economies, such as those in eastern Europe). (Castree, 2009:201)

The fulfilment of such mission poses great challenges because of the very intangible nature of the tradable materials. In short, we can say that the initial aim of global climate regime was to effectively, efficiently and equitably fight against climate change. Unfortunately, as we have just seen from the above developed arguments, such regime failed to reach its goals, because of the adoption and predominance of market-based mechanisms. Nevertheless, it is important to note that beside those three mechanisms instituted by the Protocol, there two other emerging mechanisms, namely the currently highly debated REDD, and the recently instituted ITMO set in place by the Paris agreement.

2.d- Reduction of Emissions due to Deforestation and forests Degradation

It is important to mention that, unlike the other global market-based mechanisms, the REDD was not officially launched by the Kyoto Protocol, and is not officially counted among the flexible mechanisms. Nevertheless, even though it was developed later, we can already see the intention of putting a mechanism for forest marketization and the use of forests related emissions and storage capacity within the commercial framework of the Kyoto protocol. According to its Article 3.3, Annex I Parties are encouraged to use GHG removals, mainly from afforestation and reforestation, the so-called forest sinks, and deforestation counted among the emissions sources since the 1990 baseline⁶, to meet their emission reduction commitments under the protocol. In fact, according to that article:

⁶ In the sense of the Kyoto protocol, a baseline can be understood as a benchmark in the light of which subsequent efforts to reduce emissions are evaluated. It is a common point of departure for all the parties, irrespective of their past responsibility of emissions capacity. In that line, the year 1990 was chosen as the baseline. Under the protocol, parties were invited to provide accurate data on their 1990 greenhouse gas emissions. Following that, their progress and efforts to meet their emissions reduction obligations under the protocol could be judged with 1990 data as the starting point.

The net changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.

The mechanism for the Reduction of Emissions due to Deforestation in developing countries (RED) was officially launched at the Montréal Cop 11 in 2005 following the joint declaration entitled "Reducing Emissions from Deforestation in Developing Countries: Approaches to Stimulate Action", made by Papua New Guinea and Costa Rica on behalf of the Coalition of Rainforest Nations with a strong support from several African and Latin American countries (La Viña et al., 2016). In 2007 at COP 13 in Bali, under the initiative of Norway, the mechanism incorporated the degradation dimension and became REDD and, later in 2008 and 2009 in Poznan and Copenhagen respectively other variables will be added and we will move from REED to REDD+. Here the variable + refers to additional aspects such as forest governance, conservation of forest carbon stocks, sustainable management of forests, enhancement of the forest capacity in stocking the carbon through afforestation- reforestation, and rehabilitation of lands (CIFOR, 2009; Brown et al., 2011; Gupta et al., 2012; Visseren-Hamakers et al., 2012; Somorin et al., 2014; Kenfack, 2016a; Somorin et al., 2016). So, even though it is not among the global carbon trading schemes set by the Kyoto protocol under the name of flexible mechanisms, the emerging global REDD is nevertheless a mechanism aiming at selling developing countries' forests capacity to absorb the carbon dioxide from the atmosphere through a compensated conservation approach, what we can call a do not exploit and be paid approach. As Cabello and Gilbertson clearly argued in 2012, "although not yet explicitly connected to UN-backed carbon markets, even those REDD+ initiatives currently being supported by public money are generally designed to help jump-start forest carbon markets." (2012:167) With the 2015 encouragements for parties, by the Paris agreement in its Article 5.2, to use the "policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries", the international community encourages action for results-based payments in the forest sector (Finlayson, 2016), without nonetheless officially considering the mechanism as market-based approach. Nevertheless, considered under this line, forests

offer ecosystem services as carbon absorbers and carbon sinks, and countries or community hosting forests are paid to preserve them so that they can continue to render those services. In fact, despite the technical, ethical and social challenges it poses, the aim of the mechanism is simple: Provide financial incentives and remuneration from rich countries to developing ones, in exchange of measurable reduction unit of forest emissions (Angelsen et al., 2013; Kenfack, 2016a). In this sense, they then preserve their forests, which not only serve as carbon sinks, but also prevent emissions related to the forest sector, currently accounting for almost 1/5 of the global GHG emissions, more than the transportation sector (Kaninnen and Murdiyarso, 2009). Basically, it is a mechanism for "paying governments, companies or forest owners in the global South for keeping and looking after their forests (instead of cutting them down, for example), as forests are seen as important 'carbon sinks', literally capturing and storing CO₂ over long periods of time." (Böhm et al., 2012:7) In a more practical way these payments may happen following two modalities: They can be on a project-by-project basis; under this first modality a developer establishes a contract with landowners to preserve or reforest a chosen area of land, and sells the carbon thus sequestered. Secondly, they can operate on a broader scale such as a province/region, a State or nation; under this second modality REDD+ funding, under the management of the corresponding territorial authorities, are used to reduce deforestation or promote reforestation in a wide geographic area, resulting in greater stored carbon (Takacs, 2014; Kenfack 2016a). The idea of forest as "carbon sinks" reminds us of Martínez-Alier's concept of "toxic capitalism" (Martínez-Alier, 2009) where, in exchange of money, forests in the global South will basically be used as waste disposal grounds for the dumping of excessive GHG emission of the global North. This is the mechanism that best incorporates forests into the global carbon commodity market set out by the current neoliberal climate regime under the UNFCCC. The incorporation of forests in the market system basically considers only the aspects that are commodified and sold even though incommensurable in the strict sense of the word, at the expense of the other multitude of services and meanings forests have for their inhabitants. In fact, forests are not only the living milieu, but they represent the domain of definition of indigenous and other communities living in and around them. Both the collective and individual identities of those communities are defined in relation to the forests. They keep existential relations to their forests that can neither be evaluated, nor traded, nor compensated. Unfortunately, the commodification of forests and

their incorporation into the capitalist market neglect that and focus only on what can be traded.

Creating a nature of "ecosystem services" thus involves choosing exactly which relationships that co-create the complex web of life will symbolize the different ecosystem services that are to represent nature as a whole. It involves defining what parts of a particular nature actually make up the ecosystem service "bee pollination" or "water purification" or "biodiversity" or "carbon cycling capacity" of a forest or peatland [...] All other relationships not included in the definition of the service are made invisible because they will not be measured, not become bearers of economic value. Their presence or absence, scarcity or abundance will be irrelevant to the economic value of nature because that value will be determined exclusively through valuation of the relationships included in the definition of the "ecosystem services" to be measured. (Kill, 2015:16)

In the same line, the Munden Project believes that "forest carbon lacks a clearly defined process that is reliable in producing similar outcomes across different scenarios", that "there is no clearly defined process for forest carbon accounting" and that "as an asset, forest carbon is currently created using a vague, malleable and insufficiently repeatable set of processes." (2011:15) The report concludes that "forest carbon trading is unworkable as currently constructed." (2011:25) Nevertheless, we can see that the last two COPs shed new visibility and energy to the mechanisms; in the rundown to Paris for example, more than 82 countries included forests and land use as a key contribution to mitigation in their INDCs. More to that, in Cop 22 in Marrakech the REED+ mechanism occupied an important space and discussions were centered on the idea of using it "as a financial incentive rather than a compensation scheme." (Atallah, 2016) This implies that REDD+, in the spirit of Marrakesh, is not called to be a Result-Based payment mechanism as previously applied and even defined by the Paris agreement, but instead a preventive political option. People and communities do not have to be compensated for an avoided deforestation or possible gains in terms of forest carbon sequestration results, but in the framework of REED+ policies and mechanisms have to be put in place so that people have alternative resources and do not even think of deforesting. Nonetheless, despite those speculations within the UN, it has to be noted that things have not properly changed at the field level. As Attallah reports, Hindou Oumarou Ibrahim, a representative of Indigenous Peoples at the side-event co-hosted by the Food and Agriculture Organization of the UN (FAO), the World Bank and the UN-REDD Programme in COP 22, pointed out that at the local level, communities do not differentiate between the Sustainable Development Goals and REDD+, or any other compensation policy. What is important for them is that they "are custodians of their forests and land because they need to be." In other words, their

very identity is determined by their forests, and being the guardians of those forests is a way of protecting their identity and fulfilling their existential and ancestral duties; they do not request to be paid for that. That is why all the financial and compensation mechanisms look alike for local communities, and do not secure their fundamental rights and access to their lands, their resources, their self-identifying place and space.

2.e- Internationally Transferred Mitigation Outcomes

It is important to mention that the Paris agreement – whose detailed analysis will be carried out in Chapter 3 – did not officially put an end to the Kyoto Protocol. The same can be said of the market mechanisms under the KP (Marcu, 2016; Leonardi, 2017a). On the contrary, following the global climate market-based tradition already initiated at Kyoto by the international community, the 2015 Paris climate deal established a new mechanism similar to the Kyoto's carbon offsetting mechanism CDM, entitled ITMOs in its article 6, Paragraphs 3 to 5 in the following terms:

- 3. The use of internationally transferred mitigation outcomes to achieve nationally determined contributions under this Agreement shall be voluntary and authorized by participating Parties.
- 4. A mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development is hereby established under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement for use by Parties on a voluntary basis. It shall be supervised by a body designated by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, and shall aim:
 - (a) To promote the mitigation of greenhouse gas emissions while fostering sustainable development;
 - (b) To incentivize and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities authorized by a Party;
 - (c) To contribute to the reduction of emission levels in the host Party, which will benefit from mitigation activities resulting in emission reductions that can also be used by another Party to fulfil its nationally determined contribution; and
 - (d) To deliver an overall mitigation in global emissions.
- 5. Emission reductions resulting from the mechanism referred to in paragraph 4 of this Article shall not be used to demonstrate achievement of the host Party's nationally determined contribution if used by another Party to demonstrate achievement of its nationally determined contribution.

This new mechanism considerably widens the scope of the global carbon offsetting, compared to the CDM, with a number of additional key elements that are yet to be defined by subsequent COPs to meet the following modalities:

- Moves beyond pure offsetting, including a net mitigation element.
- Moves away from being project based to a mechanism including policies and measures, e.g. "mitigation activities".
- All countries, including developed and developing countries, can participate in the mechanism, meaning, they can generate or use carbon offsets.
- Needs to ensure environmental integrity and transparency, including in governance, and apply robust accounting rules to avoid double counting⁷. (De Jong, 2015)

Through such mechanism, the Paris Agreement embraces the idea of voluntary carbon trading by allowing countries to pursue cooperative approaches and to use "Internationally Transferred Mitigation Outcomes" to implement their INDCs, even though the aggregate of those INDCs is already problematic in reaching the established goal of 2° C, and possibly 1.5° C, set by the Agreement. "ITMOs are a new category of carbon assets that will require significant efforts to create standards that facilitate global carbon trading in the upcoming years." (Jones Day, 2015:32) Unlike the CDM, which was "created for developed countries to purchase emissions reductions units from developing ones, a market-based mechanism under the Paris Agreement could potentially include any country, and transfers could flow in any direction?" (Hamrick and Goldstein, 2016:4)

We can realize that those mechanisms have created a somehow general belief and mindset according to which the climate crisis cannot be solved outside the market. That is why the current climate regime and all the subsequent national climate policies seem to be dominated and guided by a kind of dogma that I will try to analyze in the next section.

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Double counting in climate politics can be understood in two different ways: first we have the double-counting of emissions reduction when the same emissions reduction is counted twice or more at the same time. For example, in a situation where both the seller and the buyer count the emissions reduced in their inventories. Secondly, we can have financial double-counting when money paid for purchasing credits, or invested under a carbon reduction project is equally considered by a party toward fulfilling its financial obligations. According to international climate policy instruments, both forms of double-counting should be avoided.

3- Carbon trading dogma: Option "without" alternatives

In order to better understand the concept of carbon trading dogma, that is the strong belief in the exclusive capacity of the capitalist market to solve the current climate crisis that the capitalist mode of production and consumption created, or as Leonardi aptly puts it this "extremely entrenched – albeit empirical unprovable- political belief that climate change, although a market failure [...], can be viably solved only by a wave of further marketization" (2017a:67), it is important to first dive into the very notion of dogma. The understanding of such notion is of great relevance since the carbon trading dogma is nothing else than the opportunistic encounter between the dominant free market principle of the neoliberal system and the power of dogmatism in a global warming context. In fact, if we agree with Leonardi that "every system of power needs a clearly defined regime of truth" (2012:256), we will equally point out that the regime of truth of the current capitalist neoliberal system - mostly in relation to global warming - is that of carbon trading. That is why it is important first to understand the very concept of dogma, then to investigate its association with the climate market regime.

3.a- Understanding the concept of Dogma

Originating from the ancient Greek word $\delta \delta \gamma \mu \alpha$, which simply means what appears to be truth, the concept was later on transcribed in the medieval Latin language by dogma, to refer to a philosophical tenet. According to the dictionary Larousse en couleurs, the dogma is defined as "a belief, opinion or principle given as intangible and taxed as indisputable truth." (Pechoin and Demay, 1989) The Petit Robert 1 on its own defines it as "the fundamental, undeniable truth" (in a religion, a philosophical school of thought) (Rey and Rey-Debove, 1977). In this regards, the dogmatic reality is not first seen as a religious, but as a generic concept to describe what appears to a specific group or society to be acceptable and truthful. The use of the substantive 'the' clearly demonstrates that a dogma is not a truth among other truths, but it is a truth without alternative. With this stress, we easily realize the shift from the original generic meaning of the concept to a more restrictive one, but still not yet restricted to the religious domain. With the influence of the Church in the medieval era, the concept of dogma entered the theological field, gained popularity and religious meaning, to the point of being reduced in the popular opinion to a

religious indisputable principle or truth. Such introduction of the concept in the theological field was done by the Dominican priest Melchor Cano in his work published posthumously in 1563 under the title *De locis theologicis*. In his book, Cano uses the term to refer to an apostolic teaching, transmitted by the Scriptures or by the tradition of the Church, defined by the Council or by the Pope and believed by the faithful. Two main elements arise from such conception: Dogmas are at the same time proposals explicitly and definitively taught by the church, and therefore must derive from the Scriptures or the tradition, and unveil part of the mystery of faith that has to be unquestionably believed by the faithful, and they must be officially proclaimed and endorsed by the hierarchy of the Church (Latourelle and Fisichella, 1992). Nevertheless, despite its historical evolution and trajectory, it is important to have in mind that the concept of dogma can basically be understood from a quadruple perspective:

- An official system of principles concerning the faith, morals and behaviors of a
 given group among others. This can for example be the case of Church's documents
 leading the life of its faithful.
- A specific principle or doctrine laid down with authority and proclaimed by the hierarchy of a Church. This can apply to the various dogmas proclaimed along the history by Churches, such as the Assumption of Mary or the Immaculate Conception among others.
- A prescribed doctrine or ideology proclaimed as unquestionably true by a particular social, political or economic group among others. Such ideologies appear to be driving maxims maintaining the harmony of the concerned groups, and the belonging to the group is conditioned by their unconditional acceptance and respect. Here we can for example take the case of Marxist ideology and code of conduct for a convinced Marxists. In this regards, the Leninist version of Marxism legitimized the Communist Party of the Soviet Union as an infallible and enlightened party. Because of that, all the decisions and policies of that party became unquestionable in the Soviet Union, by simple virtue of the Marxism-Leninism ideological claims. In such context, it can be called the dogma of infallibility of the communist party, and it was the corner stone of the Soviet Union society and way of life.

A deeply rooted and established opinion, belief or principle that orientates the lives
and actions of a given group. This perspective can easily apply to the belief in the
power of the neoliberal free market and to the carbon trading which is the object of
our analysis in this section.

In short, dogmas can therefore be understood as a set of fixed definitions or conceptual, normative, doctrinal statements and declarations laid down by an authority, and which are considered incontrovertibly true, irrefutable and cannot be put to doubt. Because of the Unitarian nature of the dogma, it tends to be seen in our society marked by the plurality of disciplines, perspectives and schools of thought as a tentative of intellectual dictatorship, and social or scientific obscurantism. In this respect, according to Icke for example:

The most effective way to close down a human mind and to manipulate its sense of self is to programme into it some form of dogma. A dogma will always vehemently defend itself from other information and repel any alternative opinion which contradicts its narrow, solidified view. Dogmas become a person's sense of security and means of retaining power. Humanity tends to cling to both until its knuckles turn white. (Icke, 2004:21)

It is in that perspective that to question and contest dogmas, being them religious, political, social, economic or market-based "is to challenge the imposition of belief systems by those who use violence, fear, guilt, and the suppression of information." (Ibid:455)

3.b- Carbon trading dogma: When dogmatism meets the climate market

The association of the dogma with the environmental crisis in general and global warming in particular, under the influence of free trade principles of the neoliberal market, gave birth not only to the commodification of nature and its resources, but also and above all to the strongly rooted believe according to which only the market can help solve the climate crisis. In other words, the ideology developed has been that of turning

Climate benefits into small, measurable units that can be exchanged in a market, and then distribute and create demand for those units through government regulation. [...] A new economic sector, enhanced GDP, new opportunities for profit-taking by banks and other financial institutions, and the appearance (at least) of global warming action into the bargain. (Lohmann, 2011:651)

In that sense, the climate change debate assumes and postulates that only where there is a profit opportunity, will there be a real and lasting solution to climate issues, and any other alternative is unthinkable. It is that conceptual approach that can be defined as carbon trading dogma (Leonardi, 2017a). Such conception, as Leonardi continues, is defined by the exclusive nature of the belief (either-or) and not on rational analysis of the empirical material available. It only emphasizes the salvific role of the markets, assuming that although the climate crisis takes the form of a market failure (which in the past has not been able to properly account for the environmental element), it can nevertheless be effectively addressed only on the basis of a further marketization. Such dogma is of extreme cogency and indifferent to any practical denial. In his framing of the carbon trading dogma, Leonardi gives us some important insights for the understanding of the concept:

The reliance on carbon markets as an exclusive policy option is connected to what I call *carbon trading dogma*, which is to say an extremely entrenched political belief according to which climate change, although an historical market failure (since negative externalities were not represented into prices), can be viably solved only by further marketization. New, dedicated markets mean new, peculiarly abstract commodities which, in turn, foster a new, unprecedented wave of capital accumulation. (Leonardi, 2015)

It is important to keep in mind that the attempts to marketize nature are not new. In fact, capitalism has always tried to survive by commodifying and transforming externalities into exchange values. It is in the same line that, in the current context dominated by global warming, the main efforts of capitalism are geared towards attempting to "materially reconfigure itself through the crisis of climate change, precisely by turning carbon (nature) into a commodity. And of course this must be seen in line with the commodification processes that have always been part of capitalism's history." (Leonardi, 2015) In his own analysis, Kay (2015) does not go far from this perspective when he develops that the idea of carbon trading can be better placed in the historical view of capitalist accumulation. It is just another way for States and their market partners to enclose the commons, and this time the atmosphere and other nature resources, in order to forcefully create new markets and goods out of incommensurable things. By so doing, they raise important questions concerning carbon that need further reflection: To what does a tonne of carbon refer in the real world apart of conventional measurements? What is the part of social, environmental, cultural, situational and relational aspects among others in the carbon unit? As Huber (2016) rightly puts it, ecological systems are complex and it is difficult to quantify the "costs" of something like the loss of a wetland system or the destabilization of the climate. In short, we can see that "the commodity traded as 'carbon'

does not actually exist outside the numbers flashed up on trading schemes or registries held by administrators. [...] This makes putting a price on carbon largely an arbitrary exercise." (Gilbertson and Reyes, 2009:12-13) Here capitalism attempts to make something irreducibly complex such as nature into quantifiable entity – albeit volatile and intangible – called carbon units, in order to better introduce it in the market system. In this context, a carbon credit is nothing more than a simple conventional financial instrument that allows fossil fuel depending companies and industries to buy or to sell their rights to emit carbon dioxide measured in terms of tonnes. In the same way, in the Kyoto regime, allowances were awarded to countries or groups of countries in a much-disguised way under the mechanism of emission quota. Those credits could therefore be legally and freely bargained and traded in the international market, under the canopy of the flexibility mechanisms. Such attractiveness of the market approach at the expense of fossil fuel divestment is strongly related to the belief that historically the use of fossil fuel has been highly related to economic growth. That is why, instead of abandoning fossil fuel energies, as that may result in economic decadence, it would be better not only to further commercialize them, but also and above all to draw financial incentives and interests from the carbon dioxide and other GHGs emitted as a result of their production and consumption. As Steffen Böhm aptly remarks:

A glance at global history reveals how closely energy is linked to economic growth. The Netherlands was the first country to get a taste for exponential industrial growth back in the 16th and 17th centuries – and the Dutch empire was built on the availability of cheap domestic peat as well as timber from Norwegian and Baltic forests. One reason the British took over the Netherlands' imperial leadership was its vast reserves of cheap coal, which started to be burned at the end of the 18th century, exponentially growing in the 19th century. Then came oil and gas, which helped make America the imperial master from the early 20th century onwards. (Böhm, 2015)

Yet, faced with such historical 'evidence', it is not impossible that countries continue to rely on such dirty economy and to be eager to outsource their exploitation to fossil fuel dependent corporations in order to maintain or enhance their economies. In this context, it is expected that carbon offsetting will see an unprecedented growth in the coming years and probably decades. In fact, we observe that there is a growing number of national and sub-national emissions trading schemes (Newell et al, 2012) on one side and, on the other side there is a growing interest in the forest carbon offsetting thought the implementation of REDD projects; this, in the years and decade to come will give a new breath to carbon offsetting around the globe. More to that, "countries such as Norway and

Switzerland will continue to strike bilateral deals with poor nations desperate for cash. Emissions trading systems (ETS) will allow maximum flexibility for companies to offset their emissions." (Böhm, 2015) As such, "the control of our atmospheric commons will remain in 'the hands of polluting corporations and big players in the financial markets" (Lohmann, 2010:2) and countries, merely backing the global neoliberal regime, as the faith in the "efficiency" of the market continues to destroy our environment (Albritton, 1999). It is for this purpose that we continuously witness the efforts of commodification and valuation of nature and natural resources. Such continuous commodification efforts, coupled with the blind belief and trust in the ability of the market to solve the climate crisis is not different from any other religious belief. Just that in this context the authority imposing and maintaining such behavior alive remains the market, which appears like the only way forward, and seems not to allow any other alternative.

The circular structure of the carbon trading dogma makes any alternative unthinkable: as every religious belief, the confirmation of its truth-claims is already contained in its fundamental assumption: since there is no effective politics outside of the market, global warming is solvable only in so far as it is possible to make a profit out of it. 'Climate stability equals surplus value production' is treated as self-evident truth. (Leonardi, 2015)

Some authors drive the point further when they think that the modern era represents a "wave of enclosure and primitive accumulation to liberate natural capital for the global market." (Sullivan, 2009:26) In fact, the survival of capitalism has always required either geographical expansion, technological and financial innovation, or both (Moore, 2011). Today we can state that emissions trading/carbon markets are another example of a new wave of capital accumulation based on the commercial exploitation of the carbon dioxide. Carbon trade can be understood here in a double perspective. In the first point it is a simple exchange of credits among nations, with the aim of reducing emissions of carbon dioxide through the carbon speculations in emission markets. To be more precise, international carbon markets spots are put in place to help determine the market price and secure liquidity and their circulation. There are currently several exchange trading spots under the UNFCCC where emission trading speculations take place, such as the Chicago Climate Exchange (that became the Chicago Climate Exchange Offsets in 2011, and that is currently closed), the European Climate Exchange, the NASDAQ OMX Commodities Europe, the PowerNext, the Commodity Exchange Bratislava and the European Energy Exchange (Gupta 2012, Zatzman, 2012; International Business Publications, 2016). In the above-mentioned markets, countries can speculate like in any other financial market (the difference being that here the objects of speculation are neither currencies nor specific natural resources, but carbon dioxide), buy or sell emission permits, in order to reach their emissions reduction targets as set by the Kyoto protocol in a cost-effective way. As such it allows countries that have a higher carbon emissions capacity to acquire the right to release more carbon dioxide into the atmosphere from countries that have lesser carbon emissions capacities and demands. In the second moment, it can also make reference to the ability of individual fossil fuel dependent companies and corporations to sell or purchase their polluting rights through a system known as cap and trade. At this level companies that pollute less can sell their unused pollution rights known as carbon credits to companies and corporation that needs more pollution rights. The final idea here is to ensure that the aggregated companies and corporations do not exceed a baseline level of pollution, and to provide a financial incentive for companies to pollute less, following the basic rule of the market speculation. It is in this line that we can easily say that the "theory or rather dogma behind emissions trading is that once a cap is set, the "invisible hand" of the free market supposedly allows privately owned companies to determine the most efficient and least costly means of reducing emissions through the trade in carbon credits." (O'Connor, 2009)

To conclude this chapter, we can say that the current global climate regime is dominated by a deep faith in the market as the sole mean of appropriately tackling the climate issue. Right from the onset of the Kyoto protocol, the market took a central place and market mechanisms were conceived at the global level, to better insert nature and its resources in the global neoliberal market, under the influence and the blackmail of the US delegation that put the inclusion of the market mechanism as a condition for participating to the protocol, even though they finally did not ratify it. As Leonardi rightly puts it:

Led by then Vice-President Al Gore – the parties agreed to structure both the design and the implementation of the KP around three market-led approaches called *flexibility mechanisms*: i) *Emissions Trading* (ET): a cap-and-trade system in which governmental authorities set emission caps and private companies exchange permits and credits; ii) *Joint Implementation* (JI): a regulative system for exchanges amongst Annex I countries; and iii) *Clean Development Mechanism* (CDM), whose function is to indirectly include Annex II countries in global carbon markets. The fundamental economic rationale offered for such mechanisms is that trading emissions permits and credits on dedicated markets would simultaneously reduce the aggregate cost of meeting the targets, foster sustainable development in non-industrialized countries, and create profitable opportunities for green business. (Leonardi, 2015)

After the Kyoto protocol, another mechanism (REDD), largely implemented around the world even though not considered among the flexibility mechanisms of Kyoto was put in place in 2005 at Cop 11 in Montréal, to include the forests of the global South in the carbon market system. The 2015 Paris will complete the puzzle by creating another mechanism known as ITMOs. Such mechanisms, as I have demonstrated are mostly based on the already existing PES ideology. Those efforts to commodify nature through the carbon market system are done merely to maximize profits at the expense of human and environmental variables, and not taking into account the remaining global carbon budget. Nevertheless, there are strong evidence that there are no alternatives within the current market economy that can help solve the issue, "carbon markets necessarily discourage the immediate front-loaded investment in low-carbon technology." (Lohmann, 2011:654) Other studies show that under the current system countries "continue to subsidize and support fossil fuel extraction on a scale 17 times larger than they support clean energy initiatives." (Carton, 2009:22) However, based on the urgency of the matter and the reduced quantity of carbon budget remaining, we can conclude that a safe carbon budget cannot actually enable carbon trading due to supply constraints. As Mike Childs describes:

The global carbon budget to avoid dangerous climate change is too small to allow trading. If a temperature target of 1.5 degrees is chosen with a reasonable to high chance of avoiding it, then the global carbon budget will be tiny. Carbon trading relies on countries having 'spare' carbon emissions that they can sell to others who do not have enough. Under a tiny carbon budget it is almost certain that no country will have any spare emissions to sell. Rich countries would need to make significant cuts very quickly and developing countries would have to develop predominantly through low carbon technologies. (Childs, 2012: 15)

The global carbon budget has continued to reduce considerably despite the mechanisms put in place under the UNFCCC and its additional protocols to reduce the GHG emissions and fight against climate change at the global level. This situation is strongly related to the market-based approaches that have mostly contributed to the carbon marketization rather than carbon limitations as I have argued in this chapter. I will further analyze such failure in relation to the procedural aspects of the current global climate decision making, namely its State-centrality approach.

CHAPTER TWO

INTERNATIONAL CLIMATOPOLITICS: GLOBAL CLIMATE ARENA AND STATES DOMINATING ACTION

The international community, as we have seen in the previous chapter, relies basically on the commodification of nature and the resulting market-based approaches to solve the global warming crisis. That, to an extent, justifies the failure of the current global climate regime put in place within the UNFCCC. In this chapter, I will focus on another element that could justify such failure, namely the global climate decision-making system that is quite exclusive and does not allow alternative voices from within. Even though some authors, following the negotiations approach adopted in Paris, praised the rise of bottom-up diplomacy, where decisions are no more imposed to States from above (Busby, 2016; Ivanova, 2016; Falkner, 2016), the reality remains that only States are still considered actors of global decision-making processes. Whether we consider the case of the former negotiations approach where parties were negotiating based on draft-texts proposed by the UNFCCC Secretariat, or the Paris approach where negotiations are based on the draft-text resulting from the aggregate of the previously submitted Intended Nationally Determined Contributions (INDCs), the same actors sit around the negotiations table, and these are the accredited States' representatives. None of the two configurations admits non-sovereign entities as direct actors in the decision-making. In other words, whatever the configuration, States remain the ultimate actors of the global climate decision-making. All other participants gravitating around the negotiations, either from within as observers or from outside as climate justice movements, environmental movements, business and labour movements among others, can try to influence the debates from their various stands, or by the insertion of their members in official delegations of States (Nasitirousi et al, 2016) but do not have a direct say on the outcomes of the global climate negotiations as independent entities. That is why, in the context of this chapter, I

will focus on the State-centrality approach in the global climate decision-making as a second hindrance to the conception and implementation of effective and efficient global climate policies, after the market-based approaches adopted by the same States.

I will start by presenting the institutional framework based on the official classification of the UNFCCC that clearly states who can be considered actors and who cannot in the climate negotiations arena. Then I will use four theoretical approaches to critically analyse that institutional framework as follow: 1) the International Relations (IR) approach, to analyze how the search for national interest and power-relations among States can be obstacles to the establishment of effective global climate instruments; 2) the environmental governmentality approach to show how, whether taken from the perspective of green governmentality, ecological modernization or civic environmentalism States still strive to remain masters of the game; 3) the insider/outsiders categorization to demonstrate the collaboration (or not) of non-State actors determine their position with regards to decision-making; 4) the environmentalism categorization based on the cult of wilderness, the gospel of eco-efficiency and environmental justice/environmentalism of the poor as developed by Ramachandra Guha and Juan Martínez-Alier to render account of the ideology that sustain actor's environmental choices and policies.

1- The UNFCCC: Actors and intergovernmental interest groups

1.a- The UNFCCC official classification of actors

The official classification used by the UNFCCC divides non-State actors into constituency groups such as: business and industry non-governmental organizations (BINGOs), environmental non-governmental organizations (ENGOs), Indigenous peoples' organizations (IPOs), local government and municipal authorities (LGMAs), research and independent non-governmental organizations (RINGOs), trade unions non-governmental organizations (TUNGOs), farmers and agricultural NGOs, women and gender, and youth non-governmental organizations (YOUNGO) and other groups of observer organizations constituted by international governmental organizations (IGOs) such as the World Bank, OECD, and UNEP (Nasiritousi et al., 2014). Such categorization conditions the admission of participants to the UNFCCC meetings under two modalities: 1) On granting accreditations, the UNFCCC secretariat takes into consideration these categories and not

categories determined by researchers or external actors; 2) apart from the legally recognized parties to the UNFCCC, the others who participate to the negotiations in the quality of observers are mostly groups that are constituted following the UNFCCC categorization model.

Despite such classification that shows an important presence of non-State actors in the global climate arena, the reality is quite different, as such milieu is dominated by the presence and actions of State actors, at the detriment of other type of actors that are only considered as observers, forced to play secondary roles. In fact, there are basically three categories of participants at meetings and conferences under the UNFCCC: They are mostly the representatives of Parties to the convention and observer States, the members of the press and media, and the representatives of observer organizations. Furthermore, this last group is divided into three types: The UN system and its specialized Agencies, the IGOs, and finally the NGOs. It is nevertheless important to mention that IGOs and NGOs can only register their delegates if they have previously applied for and received observers' status. In Paris for example, there were over 1900 NGOs, and 100 IGOs admitted as observers.

The NGOs represent a broad spectrum of interests, and embrace representatives from business and industry, environmental groups, farming and agriculture, indigenous populations, local governments and municipal authorities, research and academic institutes, labour unions, women and gender and youth groups.⁸

The admission of those observers is conditional to the respect of the dispositions of Article 7, alinea 6 of the Convention that states:

The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not Party to the Convention, may be represented at sessions of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties (UNFCCC 1992).

It is important to mention that beside those categories of actors present during the negotiations with status clearly defined by the convention, there are other types of

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⁸ Refer to http://unfccc.int/parties_and_observers/observer_organizations/items/9524.php Retrieved on 18/10/2016

Intergovernmental actors that emerge and influence the debates following the interests at stake at a given moment.

1.b- Intergovernmental interest groups

Beside the traditional actors of the negotiations which are States and Organization of regional economic integration Parties (of which only the EU do participate as integrated body), and the intergovernmental organization that are invited to participate as observers and experts groups such as the IPCC, the United Nations Environmental Programme (UNEP), the International Energy Agency (IEA), the International Organization for Migration (IOM), and the World Meteorological Organization (WMO), there are other intergovernmental alliances that are formed depending on interests at stake, and that have a great influence in the debates, even though they do not have the right to vote. Among them we can mention:

- *The Umbrella Group* occasionally brings together Australia, Canada, USA, Russia, Iceland, Japan, New Zealand, Norway and Ukraine
- *The Environmental Integrity Group*: Created in 2000 by the members of the OECD who disagrees with the positions of the Umbrella Group such as Switzerland, Mexico, South Korea, Monaco and Liechtenstein
- *The Group of 77*. This group was established on 15 June 1964 by seventy-seven developing countries signatories of the "Joint Declaration of the Seventy-Seven Developing Countries" issued at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in Geneva. It continues to carry the interest of the group within the UNFCCC. In certain circumstances, they are joined by China and in that case they are called G77+China. In most case members of the group creates other networks and influence groups, according to the interests at stake during negotiations. Among those circumstantial groups we have:
 - o *The BSAIC* which is active since 2009 and is made up of Brazil, South Africa, India and China
 - The Arab Group. Made up of 21 Arab countries among which Saudi Arabia, Iraq and Qatar, they basically insist on the impacts of climate change on the economy of Arab countries
 - o The Alliance of Small Island States which is made up of the 39 most

- vulnerable countries, most of which are found in the pacific. They basically advocate the 1.5° C target in the negotiations.
- The African group that assembles the 54 African countries to advocate for matters of common interest such as adaptation, finances, technology transfer and capacity building.
- o *The Least Developed Countries group (LDC)* made up of 48 countries (34 in Africa, 13 in Asia and one in the Caribbean)
- The coalition of tropical forests States is a group made of 40 countries from Central Africa, South-East Asia and Amazonia, all covered respectively by the Congo Basin, the Mekong-River or the Amazonian Forests, and they basically dwell on the carbon forest and its reduction.
- o *The Like Minded Developing Countries on Climate Change (LMDC)* is a spontaneous coalition of 24 countries of the Arab world, India, China, several emerging Asian economies and some active parties of South America. The group was created during the Bonn session on climate change in May 2012 with the aim of strengthening and unifying the G77 + China.
- The Independent Association of Latin America and the Caribbean (AILAC), is made up of former members of the ALBA such as Chile, Peru and Guatemala. The group was constituted in 2012 and has more flexible and open positions during negotiations.
- The Bolivarian Alliance for the Peoples of Our America (ALBA) was established on December 14th, 2004 under the impulsion of Hugo Chavez of Venezuela and Fidel Castro of Cuba. It is a very conservationist group made up of countries such as Venezuela, Cuba, Bolivia, Nicaragua, Dominica, Ecuador, Antigua and Barbuda, Saint Vincent and the Grenadines, Saint Lucia, Grenada and the Federation of Saint Kitts and Nevis. In the global climate arena, this group portrays itself as a defender of the rights of mother earth. It advocates for financial and technology transfer from the global North to the global South in exchange of forest preservation. It also stresses on the historic responsibility of developed countries and the need to establish an international court of climate and environmental justice for the prosecution of States, companies and people who destroy the environment.

All those groups participate to the global climate debates and can influence the debates given the nature of their members. The most prominent example remains the heavy influence that the African group had in the 2009 Copenhagen summit, and that almost blocked the summit when they threatened to leave the negotiations table (Kenfack 2016a). Their member cast votes individually as parties to the UNFCCC or as members of its additional protocols. Nevertheless, despite their influential capacities, they cannot cast votes as a group.

As far as non-State participants are concerned, their influence in the negotiations is made in two ways: In the first place through their informal relationships with State Actors. Through their strategic networking, many members of NGOs, Corporations and intranational entities end up being part of the official delegations of States and, through that affiliation they can make the voice of their original institutions heard under the canopy of the official positions of the States to which delegation they belong. In the second modality, some Organizations, mostly IGOs such UNEP, IEA, IOM and WMO among others, are often called to intervene during the debates when negotiators are treating issues related to their field of expertise. Through those interventions as experts, they present the results of research and analyses which may influence the position of some Parties. The following table 3 summarizes the roles and their associated benefits for the organizations in the context of global climate governance.

Table 3: Benefits of consultative status and informal ties with NGOs

Benefits of the Consultative Status	Benefits of Informal Relationships	
• Receipt of UN documents	Interpretation of UN documents	
• Distribution of position papers	 Feedback on position papers 	
Access to UN meetings	 Insight into country delegation 	
• Guidelines for agency	Positions & political context	
Accreditation & meeting	• Insight into other UN agencies &	
Participation	personnel	
	 Consideration when 	
	opportunities arise	
	 Information & introduction re: other organizations with similar interests 	
	• Co-sponsorship of events & projects	
	 Funding opportunities 	
	• Inside, "privileged" information	

Source: (Caniglia, 2001)

Nevertheless, from the above analysis we can see that the UNFCCC negotiations, even though they appear to be opened to non-State actors, limit their action to that of mere observers, and even the admission to the status of observer is strictly controlled by the parties to the convention through the UNFCCC secretariat. In fact, to be legitimately and legally considered party to the convention, two conditions need to be fulfilled: Be a State or a regional Organization of economic integration and secondly be a signatory to the convention and have already deposited the ratification instrument. According to Article 51,

The Convention shall be subject to ratification, acceptance, approval or accession by States and by regional economic integration organizations. It shall be open for accession from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary (UNFCCC, 1992).

The Depository of the convention, in this context is the UN secretariat. Based on that, we can easily conclude that the global climate decision arena is exclusively intergovernmental and State-centered, not only in virtue of the intergovernmental nature of the UN under which all negotiations are carried out, but also and above all in virtual of the negotiations legal framework that explicitly limits the full membership to States.

2- Global climate governance and State centrality

2.a- The rise of global climate governance

Understanding the current global climate decision-making process requires that we situate it within the broader context of IR and, specifically, in the context of international environmental politics deployed by the international community under the control of the Unites Nations. In fact, IR appears to be the most suitable framework that can help to explain the current difficulties faced by States at the global level, and the relatively limited outcomes of the global climate debates and negotiations, despite the huge efforts consented by the actors within the UNFCCC.

From the onset, it is important to mention that the inclusion of environmental matters in the global arena and the emergence of the international environmental politics should be chronologically situated in the post-World War II context. Stevis (2014) gives a very clear and summarized account of that emergence in the three following steps and historical moments:

- From late 1960s to mid-1970s. This period is characterized by the newly African independent States joining South American States to forge a common position from the global South in the international arena. The key environmental concerns at this moment are the consequences of the uncontrolled exploitation of natural resources as a limit to growth and the consequence of industrial pollution for the environment and for human health. The inclusion of environmental concerns in the global agenda during those decades is manifested not only by the growing number of international environmental NGOs and think-tanks that were formed during that period, but also by the organization of two important environmental-related global conference, namely the 1968 Biosphere Conference organized by the UNESCO and the 1972 Stockholm UN Conference on the Human Environment.
- From late-1970s to mid-1990s, under the influence of the United States and the United Kingdom, the world witnessed an unprecedented development of neoliberal ideas and policies. In this context, environmental issues, as raised in the previous period, started to be highly contested. The environmental crisis started to be viewed as an opportunity for economic development. This became more visible in the international arena through the publication of the 1987 report entitled *Our Common Future* by the United Nations Commission on Environment and Development, and the organization of the 1992 Rio Conference on Environment and Development.
- The post mid-1990s is characterized by the polarization of the international community around global warming, the multiplication of carbon market instruments and the investment in the development of technological solutions to tackle climate change. This period has also witnessed a great development of research on environmental governance and the multiplication of fields of struggle, including the quests for multi-level climate governance and the inclusion of social and climate justice concerns among others.

In short, we can conclude with Paterson that "the shift from norms about environmental governance from limits to growth in the 1970s, to sustainable development in the 1980s, to liberal environmentalism in the 1990s [...] underpins the various specific environmental regimes that emerge in the respective periods." (Paterson, 2014:59)

Against this background, in the attempt to understand who the actors of environmental governance are, I will focus on the State-centrality in the global climate regime based on some key IR schools of thought. The literature used at this point is selected based on the focus they put on analyzing the nature of IR actors. First of all, it is important to mention that the international climate arena is occupied by the "nation-States, the international organizations, the global environmental movement, the corporate sector, and expert groups." (O'Neill 2009:48) Nevertheless according to the classical realist theorists, when we talk of IR from the actors' perspective, we refer to the inter-States relations and more specifically their respective governments. In fact, in the international arena only legitimate and accredited States' representatives can sign or ratify conventions and enforce international laws and regulations (Morgenthau, 1948; Aron, 1966; O'Neill, 2009).

Obviously, these thinkers are very much criticized by the liberal and neo-liberal scholars who take the exact opposite stand and defend that the international arena and systems are mostly dominated by national and transnational interest groups, multinationals, religious movements as well as individual political entrepreneurs (Hamman, 2003). In their perspective, IR can be understood as any relationship which by deliberate will of the actors is built in the world space beyond the national State framework and which is realized, at least partially, by escaping States' control or mediating action (Badie and Smouts, 1992). That is why such society is not inter-national (exclusive relations among States), but transnational (relations across States' borders by any actor) (Keohane and Nye, 1972; Huntzinger, 1987). For these schools of thought, States in the international arena are reduced to mere instruments for the defense of interests' groups and organizations' interests.

A more balanced position with regards to IR actors is endorsed by neo-realists, who acknowledge that States are key actors in IR, but beside them there are non-State actors (NSAs) and IGOs that also play a substantial role (Waltz, 1979; Gilpin, 1981; Mearsheimer, 1997). The particularity of this approach lies in the fact that it defines the international system in terms of structures and interactions (Waltz, 1979). So, when transnational and State actors do collaborate at the international level, they do it within the framework of agreed structures and established institutions, such as the UNFCCC and the

COP in the case of climate change governance; that is why this line of thought is also called structuralist realism. According to Paterson,

One of the central functions of States in capitalist societies is to create the political conditions for promoting capital accumulation. As a consequence, promoting growth has become the political imperative for elites throughout the world, even in countries that are not ideologically inclined to capitalism. Conversely, those who organize growth (capital, as a class, businesses, as individual enterprises) gain structural power with respect to policy making, thus structuring environmental policy making in particular directions. (Paterson, 2014:52)

Seen from this angle, global climate governance ceases to be an inter-State matter and becomes an inter-capitalist-elites matter. States become instruments in the hands of capitalist elites who use them to secure better conditions for capital accumulation at the global level, through the conception and implementation of policies and regulations able to facilitate such accumulation. Climate negotiations can thus be understood, from this perspective, as bargaining among various national and transnational capitalist elites whose interests are protected and endorsed by their respective States within the UNFCCC. However, even though the dominating market-based regime gives reason to this approach, our concern remains the same. This approach does not deny the centrality of States in the current climate regime, but acknowledges them as instruments. At the end of the day, States are necessary to endorse and carry the interests of those transnational capitalist elites to the negotiations table.

Nevertheless, if we go from the assumption that almost all the States are aware of the necessity of acting fast to halt the effects of global warming, what then can explain their difficulties in putting into place consensual effective global climate mechanisms? In which sense can the individual States' interests and the power logics account for such failure?

2.b- Interests and power: Threats to effective climate governance

The preservation of national interest is an important element States take into account while elaborating their foreign policies and while involving in international bilateral and multilateral diplomatic relations. This is so important that, to understand international politics, one needs to contemplate the various interests at stake. Nevertheless, if we can say that at the international level, States basically "seek to advance their own material interests in international cooperation" (Lidskog and Sundqvist, 2015:5), it is not

the same when it comes to defining the nature of the interest at stake. Falkner justifies such difficulty to determine national interest in the context of the current climate regime by evoking "the high degree of uncertainty in predicting long-term climate change and the costs and benefits associated with it, [since this] makes it difficult for governments to assess where their national interests lie." (Falkner, 2016:5-6) Under the current global States-dominated environmental regime, it is impossible to build an effective climate cooperation because of the individual, always evolving and most of the times contradictory interests that sustain States' positions during negotiations (Paterson, 2014).

Nevertheless, even though they are diffuse, those interests in the current climate change context, can be summed-up in three main categories: The *continuous economic growth* for countries of the global North, the *economic development* for those of the global south, and the *existential continuity* for small islands, coastal and other lowland countries. It is in this regards that Purdon (2015) thinks climate actions can only be accepted and promoted when they are compatible with States' economic interests. Beside the influence of those individual States' interests in the global climate arena, we also have the emergence and disappearance of contextual interests-based alliances, the behavior of States that are part of various alliances and, at times alliances with conflicting aims, depending on their interests at a given moment; this shows this centrality and the mutability of States' interests in particular and specific situations. This, to an extent, demonstrates the tension and the difficulties faced by States in making a choice between doing the morally right (suitable climate policy based on divestment from fossil fuels, for example) and the politically correct and acceptable (economic growth at all cost, for example).

In the current capitalist context where the politically correct is what leads to economic growth, following the internal logics of capitalism (Andreucci 2017), States are therefore faced with a dilemma: Take long climate favourable decisions with the risk of

⁹ Just to mention some examples, we have the case of countries of the Congo Basin forests that, during the negotiations and depending of the issues being debated, can be part of the *Coalition of tropical forests States*, of the *Least Developed Countries Group* or of the *African group*. China and India equally are often part of several intergovernmental interest groups such as the *BSAIC*, the *G77+China* and the *Like Minded Developing Countries on Climate Change*, depending on the interests at stake. The Countries of Maghreb, depending as well on the interests of the moment, are either members of the *Arab Group*, of the *African group*, or G77 among others. This situation demonstrates that during negotiations States' interests condition their involvement with different intergovernmental interest groups.

losing the support of corporations, or continue to support fossil fuel dependent economy that maintain a certain economic growth at the expense of the environment? The difficulty to make such choice can be seen through the development of concepts such as 'green growth', 'green economy' and 'sustainable development' that try to combine current economic growth models sustained by the massive use of fossil fuel with environmental protection. This conciliatory approach is highly criticized by authors like Gudynas who argues that "a real debate on climate change requires discussions on negotiations that open for alternatives to all these varieties of development. In other words, instead of discussing how to agree on an 'ecologic fix' to development, the negotiations should discuss how to leave the development realm." (Gudynas, 2016:3) In other words, it is important to consider a paradigm that goes beyond the *growth imperative* to engage in a degrowth perspective that put labor at the center of a transition to a post-carbon and post-capitalist society (Barca, 2017).

The second important element that characterizes inter-States or IR is the longing for and the expressions of power. As such the ability of commanding the arena based on the rules and procedures imposed to others, are key elements in the relations among States at the international level (Aron, 1966). In such context, international politics, like all politics, becomes a complex struggle for power among States that are called to live in interdependence (Keohane and Nye, 2012). Whatever the ultimate aims of international politics, power is always the immediate aim (Morgenthau, 1948). The very aim of the IR is the struggle for and the distribution of power in the international system (Waltz, 1979).

That is why relations among States at the international level are mainly characterized by power logics, and States use their inner capacity to harm, to counterbalance the power of other States and to influence the outputs of international bargaining. Global climate politics is not freed from these power struggles. According to Li, coordinating the various influential powers "has become the key factor that influences the process of international negotiation on climate change." Global environmental governance in general, and climate politics in particular, gives an opportunity to States to

¹⁰ For further reference, consult Li H. "Pattern of International Climate Politics and China's Strategic Options in Post-Kyoto Age." Available at

http://www.polsoz.fuberlin.de/en/polwiss/forschung/systeme/ffu/studium/promotion/phd_aktivitaeten/forging-closer-ties/participants/paper/huiming_li.pdf Retrieved on 08/02/2017

exercise their 'soft power' (Nye, 2004; Brande, 2008). Here rich States do use their financial means to lead and try to impose their political options, while poor countries use their resources to blackmail and therefore impose their own views in the context of global negotiations. At the end of the day, each State has the power and possibility of interfering in one way or the other in the global bargaining.

In the context of the global environmental crisis, Philippe Le Prestre coined the concept of *International ecopolitics*, to qualify the global environmental governance arena that, more than addressing the crisis as a mere socio-environmental and scientific problem turned it into a political issue subjected to multiple political power relations and struggles (Le Prestre, 1997). With regard to the specific case of global climate governance, Jean Michel Valentin will also coin the concept of *climatopolitics* to refer to power struggles and expressions that characterize climate negotiations (Valentin, 2009; Kenfack, 2016a). Valentin focuses his analysis on the Copenhagen negotiations that failed because of the rigidity of parties in letting go their individual interests. The most prominent example he points out is the African group that almost blocked the negotiations half way by leaving the hall. During the Copenhagen talks, this group centered its demands on the unconditional transfer of climate funds and technologies from countries of the global North (historically responsible of the crisis) to the global South and specifically Africa. Realizing that their demands were being opposed by developed countries that conditioned the transfer of funds and technologies to the compliance with good governance practices, and the establishment of institutions to control the management of transferred funds, this group decided to leave the negotiations hall. The abandonment of the group almost blocked negotiations, and parties were forced to reconsider those demands for discussions to continue. This example demonstrates the predominance of partisan interests, and the power expression from parties to the negotiations. Going from this case, Valentin concludes that the failure of the Copenhagen summit can be justified by these types of power relations that conditioned the discussion and ended up preventing the adoption of the awaited post-Kyoto deal (Valentin, 2009). Following Valentin's views, I argue that the struggles for the protection of partisan/national interests and power expressions are entirely emblematic of the logics that underlie the entire global climate negotiations. In fact, discussions of different international, national and sub-national climate regimes relate to power, understood under two modalities: 1) Power as hegemony; in this context, powerful actors compel others

towards their environmental goals (DeSombre, 2000). The case of the USA delegation using their powerful position to impose market mechanisms in Kyoto during the elaboration and adoption of the protocol as reported by Lohmann (2006) is quite significant in this regards. 2) *Power as autonomy*; in this context, rich actors use their economic autonomy to ensure their resilience and condition the environmental initiatives of poor and vulnerable parties. In this regard we can mention the case of developed countries that, in the global climate arena, conditions the disbursement of needed funds to the fulfillment of several conditionalities by countries of the global South. On the other side, accepting that economic growth is the most appropriate strategy for addressing climate change through the enhancement of the capacities of the most vulnerable (Purdon, 2017), less developed parties tend to condition their climate mitigation and adaptation actions to the unconditional assistance from the richer countries.

In short, the climate arena is a field of power, where some actors do use their natural resources to blackmail, while other use their intellectual, symbolic and financial resources to impose their options, safeguarding therefore their continuous and contextual interests. This is leading to a shift from the geopolitics, where States' diplomatic strategies and international hegemony are determined by their strategic geographical position or their capacity to access, control and supply resources, to a climatopolitics where the international States' hegemony is determined by their capacity to orientate and impose their view in the global climate arena (Valentin, 2009; Kenfack, 2013, Kenfack, 2016a). The situation observed in the global arena is not different from internal cases where bargained climate policies and actions are often subjected to the will of powerful actors such as corporations, central States, regional entities, and other powerful actors' interests (Purdon, 2017). This framework is instrumental in understanding the current climate regime both at the international, national and sub-national levels, as a field of power struggles dominated by actors' interests, at the expense of the environment.

3- Non-Sate actors in the global climate arena: Categorization and role

The classical vision that gives the exclusivity of action in the international arena to State actors is challenged by some authors when it comes to analyzing the global climate governance. Such counter vision is based on the understanding of non-States as "non-sovereign entities that exercise significant economic, political, or social power and influence at a national and at international levels" (US National Intelligence Council and the Eurasia Group, 2007:2) This definition goes beyond the traditional considerations that categorize non-States in virtue of their non-participation to the governing States' apparatuses and includes other entities such as local governments, municipalities and other decentralized bodies that are inner Nation-States' entities. The main criterion here is that of sovereignty which, in the international political arena, refers exclusively to States.

This understanding of non-State actors will be the one considered for the purpose of this research given the very loose and diverse nature of actors present in the international climate arena. The trans-nationalization or internationalization of those intra-national organizations and entities is generally facilitated by the creation of international institutions designed to govern the issues those organizations and entities care about, or by the very insertion of their concerns in the global political agenda. It is nevertheless important to mention that there exist several categorizations attempts as far as actors of the global climate environment are concerned.

3.a- The environmental governmentality categorization

The first frame that helps analyze and categorize the various actors performing in the context of global environmental issues in general, and global climate governance in particular, is the tri-dimensional division based on green governmentality, ecological modernization and civic environmentalism (Caniglia et al., 2015). This approach gives a great importance to the division of actors based on the discourses and the importance they give to the use of scientific knowledge, techno-fixes and the current institutional configuration in solving the global environmental crisis. The three tendencies within this literature can be briefly presented as follow:

> Green governmentality

The green governmentality approach is centered around the importance of the scientific knowledge and its producers on climate change and on governance issues. According to this approach, the use of science in the decision making and public policies is

key to the success of climate change politics both at the global, national and sub-national levels. In green governmentality,

The solution to climate change [...] is the implementation of a strong system of governance of the economy, natural resource use, and individual behavior informed by the natural science that is developed at the international level. [...] This places scientists in the key role of defining the nature of the problem and proposing mechanisms for their resolution. This approach underlies many of the existing international treaty frameworks in which science-based resource management plays a central role. (Caniglia et al., 2015:245)

In brief, it is an approach that advocates for a more important role to be given not only to scientific knowledge in the decision process, but also an above all for a better inclusion of the epistemic communities¹¹ in the global decision-making process. As suggested by some authors, the strong collaboration between experts, scientists and policy makers would lead to more informed and effective climate decisions (Rowlands, 2001; Craft and Howlett, 2013; Rudd, 2015). The influence of this tendency in the global climate change regime can justify the ever growing number of research organizations, universities and thinks-tanks participating to the COP as observers, the inclusion of experts as technical, legal or business consultants in government delegations participating to the COP (Nasitirousi et al, 2016), the presence and intervention of the specialized bodies of the UN as experts during global negotiations, and the creation of a global scientific body like the IPCC to render account of the available knowledge in order to help in the decision-making process through the production of their periodic reports and special issues.

I argue that the creation and intervention of the IPCC in the global climate architecture is nothing more than an attempt by governments to control science and remain the only masters of the climate talks (InterAcademy Council, 2010; Merchant 2012; Victor, 2015). In fact, IPCC members are appointed and their mandate endorsed by parties to the

¹¹ The concept of epistemic communities is a theoretical construct attributed to a group of scientists who come together to build informal non-hierarchical coalitions, on the base of their shared beliefs and normative consensus about a specific issue or problem (Raustiala and Bridgeman, 2007). They are "transnational networks of knowledge-based communities that are both politically empowered through their claims to exercise authoritative knowledge and motivated by shared causal and principled beliefs" (Haas, 1992). In the international governance context in general and global climate governance in particular, this is a meta-concept that refers to science professionals who played a key role on identifying the root cause of the crisis (Hajer, 2005; Cross, 2015), and who continue to have an influence on decision makers through their research and advisory responsibilities (Humphreys, 2009). In the broader sense, "NGOs, private sector research and professional organizations are also part of these epistemic communities." (Mukherjee and Howlett, 2016:11) In general, as Mukherjee and Howlett continue, those communities render their work public and influential through reports, technical papers and articles, and participation in forums aimed at knowledge diffusion-such as multi-stakeholder policy workshops.

UNFCCC; what makes some authors argue that the body was created simply to play a political role by providing a scientific credibility to global political options (Sarewitz, 2010; Broder, 2010; Merchant, 2012). Moreover, the production of its reports is subjected to a procedure that gives a great importance to political leaders, therefore putting into question their claim of scientific objectivity. In fact, in the process that leads to the production and the release of IPCC reports, "government representatives propose authors and contributors, participate in the review process, and help reach a consensus on the report's major findings. This can result [...] in language that is sometimes weaker than it otherwise might be." (Union of Concerned Scientist, retrieved on 12/12/2016) Furthermore the IPCC

Is designed in a manner that enables government control over individual scientists, who are afforded limited opportunities to influence the agenda of climate change negotiations. Although the IPCC relies on extensive peer reviews of its assessment reports, it is governments that formulate the research agenda, appoint scientists, and approve the reports. The scientific representatives overwhelmingly come from the global North, which limits the scope and legitimacy of the panel. (Lidskog and Sundqvist, 2015:11)

By controlling the constitution of the (IPCC), States can indirectly influence the outputs of its research. As such they are sure to remain the main and leading players of the global climate game. In this regards, I argue that the IPCC is not independent from power relations. In fact, since States' role is prominent in its constitution and research agenda, it is reasonable to assume IPCC reports won't harm States' legitimacy. That is the reason why we can conclude that, even though there seems to be openness towards non-State actors, mechanisms are put in place to make sure nothing goes beyond the direct control of States.

> Ecological modernization

The main idea behind the ecological modernization approach is the belief in the technological development, the economic expansion and the development of environmental governance not only in mitigating climate change, but also while putting in place right adaptation mechanisms. It is an approach that "embraces the cost efficiency, win-win-win, market rationale, carbon accounting, and technocratic rationale" (Nielsen, 2014:12), and to reach its goals, it frames the environmental crisis in term of efficiency (in the sense of reaching the desired results at the lowest cost possible) and uses the language of business and technology to propose solutions (Baker, 2007). As such, following this approach, if the economic expansion and technological development lead to the increase of

GHG, the technological shift can create new and adapted methods to help mitigate it. The central belief of this category of Organizations is that the current social, economic and governmental institutions can effectively, efficiently, and timely address the environmental issue in general and climate change in particular; for that, there is absolutely no need for a radical structural change in the current industrial society (York et al., 2003; Carolan, 2004; Caniglia et al., 2015). This line of thought is made up of two different approaches, namely: Weak ecological modernization, that focusses more closely on technological development and energy efficiency, while stressing on the use of market-based fees for pollution, tax incentive and shift toward the manufacturing of green products (Glover, 2006; Caniglia et al., 2015); and strong ecological modernization, that proposes the adjustment of current economic systems to include the value of natural capital into production decision, modifying the existing political system toward more democratic participation and including developing countries, social justice and equity concerns into global environment governance (Berger et al., 2001; Caniglia et al., 2015). Ecological modernization appears to be the dominant approach in the current global climate regime, as we can see from the analysis of the Kyoto Protocol and the recent Paris agreement. In fact, with the stress on the market mechanisms advocated by the Kyoto protocol (UNFCCC, 1998) and the calls for the enhanced use of technological solutions by the Paris deal, the current global climate policy demonstrates its closeness with the (weak) ecological modernization approach.

> Civic environmentalism

The civic environmentalism approach comes as a counter-discourse to the current global climate change narrative. This current is also divided in two different approaches: 1) the radical resistance approach, that sees green governmentality and ecological modernization as

Both favoring the interests of the existing power elites and the dominant industrial countries resulting in the marginalization of poor people and the governments of less-developed countries. It challenges the neoliberal approach embedded in ecological modernization and calls for the radical democratization of global governance and economic processes. (Caniglia et al., 2015:246)

Basically, the 'radical resistance' approach advocates "for fundamental transformation of consumption patterns and existing institutions to realize a more ecocentric and equitable world order." (Bäckstrand and Lövbrand, 2007:132) This focusses on the centrality of global climate justice, the historical responsibility of developed nations,

technological equity and assistance to under-developed countries to adapt to climate change and engage in the path of sustainable development. On the other side, there is a reformist strand of civic environmentalism known as 'participatory multilateralism'. Its insistence on participation goes from "the assumption that lay publics are knowledgeable and capable of offering important insight into policy decisions." (Blue, 2015:5) According to this approach negotiations of global climate treaties have to be more participatory and include representatives of civil society, who will participate as full members and not only as observers. This inclusion will lead to more legitimacy of treaties and enhance their implementation capacity (Caniglia et al., 2015). The influence of civic environmentalism is better viewed in the global arena through the presence of climate justice movements, activists, Indigenous people and other civil society movements advocating for radical system change, and a more integrative and participatory global governance regime.

3.b- The Inside-Outsiders categorization

Another important body of literature that helps to categorize and understand the presence and role of non-States actors within the UNFCCC is related to the triple categorization knows as, Inside-Insiders, Inside-Outsiders and Outside-Outsiders. Such classification is based on the position of participating non-State actors and their vision with regards to the UNFCCC process. The level of acceptance, critique or rejection of the current global climate governance and negotiations arena helps to classify organizations and movements within this framework. Some authors summarize the distinction by considering as insider the advisory organisations which support fully (Inside-Insiders) or partially (Inside-Outsiders) the current climate regime with the aim of impacting decisionmaking directly from within, and Outside-Outsiders all the activists that are fighting and seeking to create pressure towards a system change from outside through media and public demonstrations campaigns among others (Breitmeier and Rittberger, 1998; Gulbrandsen and Andresen, 2004; Betsill, 2006; Betzold, 2013). Organizations and movements that believe changes must be done within the current global governance framework are classified as Inside-Insiders, those advocating reform of the current institutions for a better fight against the climate crisis are put within the Inside-Outsiders group, while those advocating total rejection of the current framework and the creation of a new social order freed from corporation and market forces as the only way forward are seen as OutsideOutsiders. In the following table 4, Caniglia et al., give an account of such classification of global climate actors, taking into account the aim they pursue through their actions, strategies, focus of influence and basic ideologies with regards to the UNFCCC process.

Table 4: Corresponding Movements and Movements Organizations

	Inside-Insiders	Inside-Outsiders	Outside-Outsiders
Examples	 World Wide Fund Environmental Defense Nature Resources Defense Council FIELD 	 Friends of the Earth Greenpeace Sinkswatch 	 Climate Justice Movement Indigenous People Activists Rising Tide
Aims	 To advance action on climate change within existing frameworks To gain access to government decision making To directly influence the negotiations 	 To advance more drastic action on climate change To question more fundamentally how the issue is being addresses 	 To question the current framing of the climate change debate To raise popular awareness about the impact of climate chance on the poor
Strategies	 Access to delegations Research Provision of legal advice Support to like-minded delegations Diplomatic lobbying 	 Research for public audiences Use of media More confrontational style of lobbying and exposure 	 Protest, demonstrations Parallel actions and side events Cross-movement mobilization Litigation Popular education
Focus of	• Governments	 Governments 	• Governments
Influence	 Regional and international institutions Private sector (collaboratively) 	 Regional and international institutions Private sector (critical approach) 	 The public Other movements (antiglobalization movement)
Ideologies	 Generally benign view of the market Critical view of command and control approaches but faith in governments and international institutions to respond effectively to the issue 	 Critical view of market mechanisms Residual faith in international and regional institutions to deliver action and belief in the primacy of legal-based regulation 	 Failure to act on climate change seen as part of the broader failing of globalization Critical view of the willingness or ability of governments and international institutions to deliver environmental justice because of their ties with the corporate sector

Adapted from the Table 3.1. In Newell (2006:116). Quoted by Caniglia et al., (2015:244)

There are several similarities between the two above classification approaches. In fact, as Caniglia et al., (2015) conclude their analysis, the combination of weak ecological

modernization and green governmentality corresponds to Newell's Inside-Insiders category. Strong ecological modernization corresponds to the Inside-Outsiders category, and civil environmentalism corresponds to the Outside-Outsiders category. Nevertheless, beside those classifications that render account of the categories of global climate actors and their interests, there is another which can help understand the different ideologies that sustain environmental actors' choices and actions, both at the national and global levels.

3.c- The environmentalism categorization

Another important lens through which we can understand the global climate governance is the environmentalism categorization based on the cult of wilderness, the gospel of eco-efficiency and environmentalism of the poor first developed by Ramachandra Guha and Juan Martínez-Alier in their 1997 publication Varieties of environmentalism: Essays North and South, and further analyzed by Martínez-Alier in his 2002 book The environmentalism of the Poor: A Study of Ecological Conflicts and Valuation (precisely in chapter two entitled "Currents of Environmentalism"). The analysis in this section will basically draw from those two publications. Nevertheless, to understand the importance of such categorization we have to situate it within the context of inspiring ideologies that guide the actions and choices of environmental decision-makers at the local, national and global levels. As Palier and Surel (2005) point out, to understand political decisions three aspects need to be considered, namely institutions, interests and ideologies; what they call the "three I". In their approach, the first element (institutions) refers to the actors that are involved in the decision-making, their networks and their influential capacities; this aspect is important in understanding or explaining why decisions favour some actors and not others. The second element (interests) refers to the gains that are defended by institutions during decision-making processes. In this regards, the interests defended by direct actors might also be those of non-participating groups, like in cases where States defend the interests of multinational and corporations. The third element (ideologies) refers to the doctrines which direct and lead institutions' choices. Political decisions are choices often grounded on ideologies that might be those of political leaders, dominant social or economic groups. Even though those three elements cannot be strictly disentangled, presenting them separately is instrumental in accounting for political decision from different perspectives. In this analysis, the UNFCCC official classification and the InsideOutsiders categorizations focus on institutions and their position in the decision-making arena, while global governance from the IR perspective is important in analyzing institutions (actors) and the place of national and individual interests in the current global climate regime. The environmental governmentality is important in explaining the position of global actors in the decision chain, and in introducing the ideological references that support the global decision instruments (such as the birth of IPCCC and increasing importance of the epistemic community as global climate decision tools based on the green governmentality ideology). The environmentalism categorization will be important in rendering account of ideologies supporting actors' choices. Borrowing Armiero and Sedrez words, "the cult of wilderness, the gospel of eco-efficiency and the environmentalism of the poor are extremely useful ideal types that help us to understand the main ideological roots for environmental movements." (2014:11)

> The cult of wilderness

The cult of wilderness, as an environmental ideology focuses on the preservation of the untouched nature and its protection through parks, reserves (protection of selected parts of nature) and through elaborated bodies of environmental laws (Armiero and Sedrez, 2014). It aims basically at preserving "the remnants of pristine natural spaces outside the market. It arises from the love of beautiful landscapes and from deeply held values, not from material interests." (Martínez-Alier, 2002:2) For this current, as Martínez-Alier argues, nature does not only have to be preserved for scientific reasons, but also and above all for its aesthetic and the religious values it represents, as well as for the non-commensurable role it plays for human and other species. In other words:

The dominant thrust of the environmental movement in the North towards the protection of pristine, unspoilt nature: a reservoir of biological diversity and enormous aesthetic appeal which serves as an ideal (if temporary) haven from the urban workaday world. In protecting the wild, it asserts, we are both acknowledging an ethical responsibility towards other species and enriching the spiritual side of our own existence. (Guha and Martínez-Alier, 1997:20-21)

Nevertheless, it is important to mention that such environmentalism is not geographically limited to the North. In fact, both in the North and in the South, environmentalism has developed, in various forms, as "a response to the failure of politicians to mobilize effectively on the issue of, as the case may be, the destruction of the wilderness or the dispossession of peasants by a large dam." (Guha and Martínez-Alier, 1997:17) The wilderness movement, as Guha and Martínez-Alier continue, is

More of a single-issue movement, calling for a change in attitudes (towards the natural world) rather than a change in systems of production or distribution [...]. [This form of] environmentalism has, by and large, run parallel to the consumer society without questioning its socio-ecological basis, its enormous dependence on the lands, peoples and resources of other parts of the globe." (Ibid:18)

Well-established organizations such as the International Union for the Conservation of Nature (IUCN), the Worldwide Fund for Nature (WWF) and Nature Conservancy among others are some of the important institutions supporting this environmentalist ideology and pushing forward the conservation agenda in the decision-making process (Martínez-Alier, 2002).

In a neo-liberal context dominated by market dogmatism and the commodification of nature and natural resources, the wilderness conservation can be said to have played an important role in raising the awareness on the aspects of nature that cannot be commodified, and in contributing to its preservation, even though they are only selected part of nature concerned (Armiero and Sedrez, 2014). Nonetheless, as Armiero and Sedrez point out,

A frequent criticism of the cult of wilderness is that it not only neglects urban and domestic spaces as environmental spaces, but it also harbours misconceptions of what 'counts' as wilderness. In particular, a concept of wilderness as 'untouched nature' denies the agency of indigenous communities in shaping the environment." (Ibid:7)

The above criticism is justified by two important realities; First most reserves and protected landscapes are found either in sub-urban or rural areas. Secondly those landscapes, in many cases have long been and are still home to local and indigenous communities that have been exploiting them for a living and therefore cannot be called "untouched nature" any longer. Another point of concern, as Guha and Martínez-Alier (1997) have demonstrated based on examples of conservation programs (through established parks and reserves) in many parts of Asia and Africa by renowned organizations such as WWF and IUCN, this form of environmentalism leads to the violation of Indigenous peoples' and local communities' rights by expropriating their lands and resources, for the benefit of eco-tourism.

> The gospel of eco-efficiency

The ideology that led to the development of the gospel of eco-efficiency can be traced back to the German forestry of the eighteen century that focused on exploiting forests for the benefit of the economy without compromising their regenerative capacities

(Armiero and Sedrez, 2014). Inspired by such vision, the gospel of eco-efficiency encourages the use of natural resources, while counting on wise human decisions, choices and options not to destroy nature, and to assist the reconstitution of destroyed nature by means of techno-fixes and geo-engineering. The purpose is not to save/protect the untamed nature but on the contrary to exploit it fully, but in an efficient way, to secure continuous economic growth without damaging nature irreversibly. This current of environmentalism is basically concerned with the

Effects of economic growth not only on pristine areas but also on industrial, [...] to the environmental and health impacts of industrial activities and urbanization, and also of modern agriculture. It often defends economic growth, though not at any cost. It believes in 'sustainable development', in 'ecological modernization', in the 'wise use' of resources. It is concerned with the impact of the production of commodities, and with the sustainable management of natural resources, and not so much with the loss of natural amenities or the loss of the intrinsic value of nature. (Martínez-Alier, 2002:5)

This environmental ideology finds its most prominent expression in the ecological modernization approach that I presented earlier in this chapter, and that is based on the conviction that the best option to solve the environmental crisis is to involve in further industrial development, technological research and efficient use of natural resources. This approach can be called green capitalist approach, since instead of discarding the capital accumulation, which is characteristic of the capitalist system, it transforms nature into a capital and advocate for its sustainable use. To properly establish the conversion of nature into a resource, as Martínez-Alier points out, this approach scarcely uses the concept of 'nature'; rather, it uses 'natural resources' or 'natural capital' or even 'environmental services', that can be commodified and 'reconstituted' through geo-engineering and other technological approaches; that is why they can as well be called "gospel of engineers and economists, a religion of utility and technical efficiency without a notion of the sacred." (Martínez-Alier 2002:5) In other words, from the perspective of gospel of eco-efficiency, two things are important and irreplaceable: market and technology as unavoidable instruments for the fight against the environmental crisis. It is in this regard that this model of environmentalism has been "subject to several criticisms, among which are its utilitarian view of nature, its faith on the ability of science to regulate the environment and its frequent disregard of social inequalities when considering the best use of the environment." (Armiero and Sedrez, 2014:8)

Nevertheless, despite those criticisms, this approach appears to have a well-established stand in the political arena. In fact, "today, in the USA and even more in overpopulated Europe [...], the 'gospel of eco-efficiency' is socially and politically in command in the environmental debate." (Martínez-Alier 2002) This domination is replicated in the global climate regime, and is manifested through policies centered on market mechanisms and the development of technological solutions.

> Environmental justice/Environmentalism of the poor

This current of environmentalism is also known as popular environmentalism, livelihood ecology, subaltern environmentalism and liberation ecology, and as Martínez-Alier rightly puts it:

The main thrust of this third current is not a sacred reverence for Nature but a material interest in the environment as a source and a requirement for livelihood; not so much a concern with the rights of other species and of future generations of human as a concern for today's humans. It has not the same ethical (and aesthetic) foundation of the cult of wilderness. Its ethics derive from a demand for contemporary social justice among humans. (Martínez-Alier, 2002:11)

In other words, this current mostly focusses on the environmental impact of economic growth and the differential impact of environmental degradation on subaltern classes (Guha and Martínez-Alier, 1997; Martínez-Alier, 2002). The development of the environmentalism of the poor varies according to the different locations and the resources. It is in this regard that Guha and Martínez-Alier state that "the environmentalism of the poor [...], originates in social conflicts over access and control over natural resources: conflicts between peasant and industry over forest produce, for example, or between rural and urban population over water and energy." (Guha and Martínez-Alier, 1997:xxi) Concepts of environmental justice, environmentalism of the poor, popular environmentalism or livelihood ecology are meta-concepts to qualify a

Myriad of movements [...] that struggle against environmental impact that threaten poor people who are in many countries a majority of the populations. These include movements of peasants whose crops or pasture land have been destroyed by mines or quarries, movements of artisanal fishermen against modern high-tech trawlers or other forms of industrial fishing [...] that destroy their livelihood even as they deplete the fish stocks, and movements against mines or factories by communities damaged by air pollution or living downstream. (Martínez-Alier, 2002:12)

Despites its variations and internal differences that come as a result of the variations of contexts where it emerges, "the basic assumption of subaltern environmentalism [environmentalism of the poor] is that ecological problems and hazards

are not equally distributed among classes, races and gender; poor, minorities and women pay a higher price in terms of contamination and exposure to environmental risks" (Armiero and Sedrez, 2014:10). Moreover, as Armiero and Sedrez continue, this form of environmentalism proposes a democratic control and management of science and technology, and is very critical of the possibility of using science and technology to solve the environmental crisis.

The environmental justice/environmentalism of the poor can be said to be in great expansion at the local and national level (through the various environmental justice conflicts) and at the global level (Martínez-Alier, 2002). Moreover, in the climate changing context, a multitude of climate justice movements (CJMs) have emerged with the aim of raising awareness on the uneven distribution of climate burden between the poor and the rich within national territories, and between rich and poor countries at the global scale. More than raising the alarm, those CJMs are engaged in struggles for the inclusion of human and social justice dimensions in the current and future climate regimes at all levels. It is from this perspective that the environmentalism of the poor can be said to be an important instrument in analyzing CJMs today.

In conclusion, we can say that the international climate-decision making process is dominated by States, which from the perspective of the UNFCCC are the only actors entitle to fully participate and vote during negotiations. Beside them, there are a myriad of organizations and entities that participate to the negotiations either as observers from within, or social movements from outside. These two last categories try to influence the global negotiations from their various standpoints and with different approaches. Nevertheless, whatever the standpoint of those actors, they are influenced by different ideologies that can be better summed up in the triple categorization developed by Guha and Martínez-Alier under the concepts of 'cult of wilderness', 'gospel of eco-efficiency' and 'environmental justice/environmentalism of the poor'.

CHAPTER THREE

UNFCCC COP 21 AND CLIMATE JUSTICE: A CRITICAL READING OF THE 2015 PARIS AGREEMENT

From the 30th November to the 12th December 2015, world leaders and countries delegations gathered in Paris, France for the 21st session of the conference of the parties to the UNFCCC. Following the drastic failure of the 2009 conference in Copenhagen, and the 2011 conference in Durban that mandated the COP 21 to put in place a legal binding post-Kyoto instrument to fight global warming, negotiators of the Paris conference had the mission of putting such instrument in place. As such, initially expected to end on the 11th, the conference finally took an additional day in order to give negotiators the possibility of agreeing on the last details of the agreement before presenting it to the world.

Made up of a preamble of 140 points going from page 1 to 19, and an annex containing 29 articles and going from page 20 to 31, the document was consensually accepted by all the negotiators of COP 21, after a thorough discussion on its content and a meticulous choice of terms to be included. According to article 20 paragraph 1, the "agreement shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations that are parties to the convention. It shall be open for signature at the United Nations Headquarters in New York from 22 April 2016 to 21 April 2017." The agreement, due to enter into force in 2020 (European Commission, 2015), aims at "enhancing the implementation of the convention,

¹² During the official ceremony to open the agreement for signature at the Headquarters of the UN in New York, 175 parties signed it, and 15 States deposited their instrument of ratification. Of the 175 parties, there were 174 countries and the European Union (only Regional Organization of Economic integration party to the UNFCCC). Currently the agreement has been signed by 197 parties. Of the 197 parties, 136 have already deposited their instruments of ratification. The "agreement entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depositary." (UNFCCC 2016)

including its objective [and] to strengthen the global response to the threat of climate change." (UNFCCC, 2015:Article 2)

Through this long-awaited instrument, the international community intends to pursue the goal of limiting global GHG emissions to a level that can help to avoid the global climate catastrophe and not reach the point of non-return; it equally intends to put in place policies and mechanisms to better cope with the current adverse effects of climate change, and to address the question of climate finance, loss and damage¹³ and the global climate governance architecture among others. The following statement of the Centre for Climate and Energy Solution summarizes in a very comprehensive way the Paris agreement. Basically, it:

- Reaffirms the goal of limiting global temperature increase well below 2 degrees Celsius, while urging efforts to limit the increase to 1.5 degrees;
- Establishes binding commitments by all parties to make "[intended]nationally determined contributions" ([I]NDCs), and to pursue domestic measures aimed at achieving them;

The notion of loss and damage refers to the adverse effects of climate change that surpass people's adaptive capacity with regards to global warming impacts (Warner et al., 2013; Richards and Boom 2014). The loss and damage impacts may among others be related to weather-related natural hazards, sea-level rise; increasing temperatures; ocean acidification; glacial retreat and related impacts; salinisation; land and forest degradation; loss of biodiversity; and desertification (UNFCCC, 2012; Richards and Boom, 2014). This mechanism is the third pillar, beside adaptation and mitigation that the international community has put in place to fight against global warming (Doelle 2015). In other words, since the mitigation mechanism addresses the root-cause of climate change by focusing on the reduction of GHG emissions, and adaptation deals with mechanisms that can reduce the impacts of already occurred changes on nature, economies and humans among other, loss and damage is transversal to both and is concerned with learning to live with the irreversible effects of global warming.

However, I argue that this mechanism, as considered by the Paris agreement, cannot be considered a success from a climate justice perspective. In fact, the introduction of the very concept of loss and damage in the climate deal calls for a responsibility of polluters. Unfortunately, the Paris agreement immediately evokes the non-liability with regards to loss and damage. Simply put, it goes thus: We acknowledge that global warming causes loss and damage to humanity, and we recognize that fossil companies and rich countries are historically responsible of global warming, and are still not ready to divest from fossil fuel. However, we do not want their responsibility to be engaged in attempting to resolve the crisis. That is why from my perspective; I conceive loss and damage as a disguised acknowledgement of the failure of global climate diplomacy, and the inclusion of non-liability and non-compensation in the agreement as an institutionalization of global climate injustice within the UNFCCC.

¹³ Discussion on the loss and damage mechanism started becoming important within the UNFCCC in 2010 COP 16 in Cancun. Negotiations initiated in Cancun led to the establishment of the International Mechanism for loss and damage at the Warsaw COP 19 in 2013, and an executive committee was put in place to further develop and ensure its implementation. Even though the emergence of the debate is quite recent, some authors trace the origin of the loss and damage back to 1991, when the group of Small Island States started calling for the establishment of an international insurance mechanism to compensate the victims of sea level rise (Siegele, 2012; Verheyen and Roderick, 2008). Nevertheless, the Paris deal is the first international agreement to officially integrate the mechanism.

- Commits all countries to report regularly on their emissions and "progress made in implementing and achieving" their [I]NDCs, and to undergo international review;
- Commits all countries to submit new [I]NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirms the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extends the current goal of mobilizing \$100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extends a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Requires parties engaging in international emissions trading to avoid "double counting";
- Calls for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's [I]NDC. (Centre for Climate and Energy Solution 2015:1)

The French authorities, the negotiators and a great majority of medias presented the agreement as a great success, after the Copenhagen and Durban failures in 2009 and 2011 respectively. Nevertheless, going beyond the enthusiastic presentation of the agreement, there exist elements that can easily temper its apparent success.

1- Paris agreement: Diplomatic success, climate failure

As the then French President Francois Hollande summed it up: "In Paris, there have been many revolutions over the centuries. Today it is the most beautiful and the most peaceful revolution that has just been accomplished – a revolution for climate change." (Francois Hollande, quoted by Centre for Climate and Energy Solution, 2015:1) Those claiming the success of the Paris climate event basically focus on the fact that it was the first global climate treaty unanimously accepted by all parties. This success, which is more of a diplomatic one, does not have to hinder from evaluating the relevance and success of the agreement from the climate justice perspective. The question is: if the diplomatic success around the Paris climate event cannot be contested, can we say the same thing about climate justice and JT aspects? A closer look at the agreement tends to expose a lot of loopholes. For example, one of the most important contradictions is the 1.5 degree target set by the agreement. Even though this goal was set, the agreement does not actually

design a pathway for how to achieve it. Instead, that goal is in direct contradiction with the Countries' Intended Nationally Determined Contributions (INDC)¹⁴ previously submitted to the secretariat of the COP, and which were conceived to be a key element to consider in building the architecture of COP 21 treaty. In fact, "while more than 150 INDCs from 180 countries, accounting for more than 90 percent of global emissions, have been submitted, current pledges and INDCs are estimated to contain warming only to 2.4 or 2.7° C." (Day, 2015:3) From a similar perspective, the European Trade Union Confederation (ETUC) affirms that:

There is a worrying gap between the collective ambitions on the one hand, and the aggregate effect of the individual contributions on the other. Ascribing to the world a collective objective of keeping global warming below 1.5°C does not make sense if the individual contributions lead us to 3°C. Bridging this gap must be an absolute priority for countries in the coming years, notably by tackling emissions sources which are not covered by the Paris agreement, like those coming from international transport. (ETUC, 2016)

Equally, the agreement "did not deliver the specific rules that will govern the monitoring, reporting and verification of emissions and national implementation of those pledges and policies." (Falkner, 2016:21) As such, by failing to put in place clear pathways to achieve tangible results, Paris ended up putting forward more empty promises and false solutions (Vilela, 2015). In other words, the agreement does not state that

Here is the current rate of global emissions, here is the rate at which each country is generating emissions, here is a distribution of legally binding definite sums of emissions for each country which will ensure that emissions do not exceed a threshold, and which will guarantee that emissions actually reduce. (Morgan, 2016:944)

Furthermore, "there are no mentions of GHG sources, not a single comment on fossil fuel use, nothing about how to stop the expansion of fracking, shale oil or explorations for oil and gas in the Arctic and Antarctic." (Spash, 2016:930) Beside that silence about fossil fuels divestment and abandonment on one side, and the lack of strategy and compliance mechanisms on the other, the agreement institutes a workaround mechanism known as the INDC. Through such mechanism, the international community opens ways for countries and corporations to rely on false solutions such as techno-fixes and market-based approaches to meet their pledges (Morgan 2016). Moreover, it mandates

¹⁴ In preparation of the Paris COP 21, countries agreed to clearly outline and render public what post-2020 climate actions they intend to take under a new international agreement. These contributions were determined by each country, taking into consideration its national priorities, circumstances and capabilities, and were submitted to the secretariat of the UNFCCC prior to the beginning of the COP 21.

the future of climate politics and actions to States under the coordination and control of the COP, and institutes a bottom-up approach in global climate governance. In this new configuration countries make their reduction pledges and the international community only relies on the naming and shaming tactic to encourage action (Busby 2016; Ivanova 2016; Falkner 2016, Morgan, 2016). Nevertheless, in order to analyze the loopholes of the Paris agreement, I will focus on four elements: its nature, its relation to market-based mechanisms, its reference to climate justice and its mentioning of JT.

2- Nature of the Paris agreement

One of the main points we can question about the Paris agreement is its very nature. The question here is to know if the agreement, as expected, is legally binding. This question is quite complicated to address, as points of view are divergent depending on whether analysts support the agreement or not. According to the European Commission (2015), "at the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal." This was in fulfillment of the engagement parties took in 2011 in Durban, "to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the convention applicable to all parties." (UNFCCC, 2012:1) The originality of the Paris agreement, according to some authors, is that it adopts an innovative legal approach that does not require the vote of the American Senate to be ratified by the USA who were the main opponent to the Paris outcome being legally binding (Obergassel et al., 2015; Busby, 2016). As such, even though it cannot be aligned to the traditional treaty-types like the Kyoto Protocol, its reliance on the convention gives it a legal character. Relying on the understanding of a treaty as defined by the international law, the authors clarify their position in the following words:

In public international law, a treaty is defined as meaning "an international agreement concluded between States in written form and governed by international law". The Paris Agreement was certainly concluded between states and in written form, but is it also governed by international law? Since the agreement was concluded at an international conference "in pursuit of the objectives of the Convention" and since it uses the bodies and procedures developed in the context of the Convention (undoubtedly an international treaty) it may safely be concluded that it is governed by international law. The Paris Agreement is thus a (dependent) treaty under international law. It is dependent on the UNFCCC because only Parties to the Convention may ratify and because

it cannot stand alone since many clauses refer to the respective procedures and bodies of the UNFCCC. (Obergassel, et al 2015:13)

So, if for those authors there is no doubt about the legal binding nature of the accord, others are more tempered in their position and prefer to speak of the Paris agreement as one having both binding and non-binding provisions. For Jones Day, for example,

The binding provisions are mostly procedural and include commitments to (i) submit an INDC, (ii) submit an updated INDC every five years, (iii) demonstrate a progression in subsequent INDCs, (iv) pursue domestic measures to achieve INDCs, and (v) submit emissions inventories and information necessary to achieve INDCs. (Day, 2015:3)

When considered from this perspective, the nature of the agreement can be seriously put to question. Was the purpose of the agreement to put in place procedures to be followed, or to build adaptation, mitigation, finance, loss and damage mechanisms that could slow down climate change at the global level, and enhance the adaptive and resilience capacities of world populations under changing climate? Considered from this second perspective, the non-binding nature of the agreement can easily be pointed out. In fact, even though the Paris agreement deals with all the important above mentioned aspects of the global fight against climate change, from the legal binding perspective it is a "potentially weak and essentially voluntary agreement". (Morgan, 2016:945) In other words, "there are no means for enforcement. Article 15 on implementation and compliance establishes an expert committee that will be 'non-adversarial and non-punitive', which means that it has no teeth and can do nothing about non-compliance." (Spash, 2016:930) To confirm this point, we can report to the following illustrative anecdote concerning the use of the word "shall" or "should" in the final version of the agreement:

US lawyers detected a (legally binding) "shall" instead of a (entirely voluntary) "should" in the Article 4.4 referring to developed countries taking the lead in economy-wide emission reduction targets. The reinsertion of the convention wording "should" delayed the closing plenary by several hours. It was communicated to the closing plenary as a technical / translation error due to late night working hours. (Fuhr et al., 2015)

This apparently anecdotic fact demonstrates how all was done by the US delegation to avoid granting to the text any legal force which, in return, would have forced the American administration to require the vote of the senate before ratifying it. Thus, since nobody reacted to the supremacy of the US in this matter, the final text was adopted and the operationalization of fighting mechanisms was left to countries, which have to decide according to their national contexts, capacities and political will, without any

internationally set emissions target as it was the case with the Kyoto protocol, nor any enforcement mechanism. Relying on such instrument to reach the 2° C and preferably 1.5° C as the agreement states becomes really problematic and to an extent a simple utopia for two reasons: First because the aggregate of all the INDCs submitted by parties and on which the agreement lies, goes far beyond the 2° C target, and puts us on "track for a world that is 2.7-3.7 degrees C warmer (median chance), depending on modeling assumptions." (Levin and Fransen, 2015) Secondly, as Gudynas observes, there is often a certain decoupling between international commitments of parties and their national policies and strategies. To clarify this point, he goes from the contradictions between Bolivia's international discourses and pledges for the protection of the right of Mother Earth, and its national

Ineffective environmental policies, weak enforcement, lack of political leadership, and the disinterest of urban majorities toward the ecological situation in remote corners of the country [...], [we can conclude that] Agreements like the one reached in Paris are still very weak to solve this decoupling, because it rests on voluntary measures at the national level, and does not impose fundamental questioning on the core ideas of development. (Gudynas, 2016:939)

In fact, this conclusion appears as an invitation for further analysis with regards to the market mechanisms put in place by the Kyoto Protocol and enhanced by the Paris agreement.

3- Carbon trading in the Paris agreement

Beside setting emissions targets for Annex 1 parties, another important innovation of the Kyoto protocol was the consecration of the international market-based mechanisms as the dominant approach in fighting global warming. Those mechanisms, also known as *flexible mechanisms*, were three in the protocol and later saw the development of another mechanism that, even though not integrated in the protocol, became widely practiced and integrated within the UNFCCC habits and language, and known REDD. As such, until now the global fight against climate change was dominated by four market-based mechanisms which have all proven to be ineffective in properly tackling the global warming at the global level. The Paris agreement was therefore expected to put in place mechanisms other than the market that could help fight global warming. Obviously, the term non-

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¹⁵ See chapter 1.

market approaches is found five times in the agreement, with the encouragement to parties to strive to use them, but equally and above all, the agreement acknowledges that markets are needed to get countries on a low emissions development pathway and enhance ambition to keep warming to well below 2 °C, by clearly recognizing the importance of tools such as carbon pricing. By so doing, it continues therefore to channel in a clear way global emissions reduction initiatives towards the market as initiated by the Kyoto protocol. According to Eva Filzmoser, director at Carbon Market Watch, in a press statement following the closing of the COP 21,

The Paris agreement contains several provisions related to carbon pricing and markets. Countries can use and transfer "mitigation outcomes" to other countries, which opens the door to the linking of Emissions Trading Systems. The accounting rules for such transfers will be developed in the coming years and will include guidance on how to avoid the "hot air" trading of bogus pollution permits, including the avoidance of doubled-counted emission reductions. The agreement also obliges countries to promote environmental integrity and to pursue domestic climate measures to achieve their targets, thereby limiting the amount of international carbon credits that can be used ¹⁶

For those who were expecting COP 21 to put an end to the market-based global climate regime, the Paris agreement came as a great disappointment, as not only it did not consecrate the end of carbon trading, but instead re-affirmed it, and even went further by laying the groundwork for a new market-based mechanism by establishing "a new mechanism to succeed the Kyoto Protocol's Clean Development Mechanism, which generates tradable emission offsets. Rules for the new mechanism are to be adopted at the first meeting of parties after the agreement takes force." (Centre for Climate and Energy Solution, 2015:3) So, as the Centre for Climate and Energy Solution continues developing its argument, even though the agreement did all the necessary efforts to avoid any direct reference to the use of the word 'market' and 'Kyoto Units', except when it had to talk of non-market based approaches, it nevertheless recognized that parties may use ITMOs to implement their INDCs, on a voluntary basis. Equally, as Fuhr et al. pointed out, the agreement used several other concepts that were referring indirectly to the market-based approaches as a way forward; According to their analysis of the text:

The concept of market-based approaches is anchored in the form of multiple synonyms found throughout the entire text. Expressions such as 'cooperative approaches', 'internationally transferred mitigation outcomes', 'enhanced' this and that – appearing no less than 50 times throughout the Paris agreement– all

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http://us3.campaignarchive1.com/?u=2da01ffed1cef841636213017&id=477e6832a9&e=6f693981d9

¹⁶ For more details on this press statement, consult

refer implicitly to market approaches. Another euphemism liberally used to convey the idea of markets without mentioning them outright is the word "opportunity/ies" which appears around 13 times, making it clear from its contextual placement that the Paris agreement creates a big opening for companies to come in. (Fuhr et al. 2015)

With that implicit recognition in general, and the encouragement to use the ITMOs in particular, the agreement created a new class of carbon assets and put forward the idea of a new mechanism that will help create and monetize the next generation of carbon credits, including those achieved through policy action (Widge, 2015). With such continuous focus on the market to solve the climate crisis, the agreement give little importance to matters related to human rights in general and climate justice in particular.

4- Paris agreement and climate justice

In the preamble on the agreement we can read the following statement:

The Parties to this agreement [...] Noting the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of "climate justice", when taking action to address climate change [...] Have agreed [to put in place the operational part of the Paris agreement.] (UNFCCC, 2015:20)

This is the only paragraph that clearly mentions the concept of climate justice in the agreement. Nevertheless, beside that, another expression such as "public participation and public access to information", which to an extent refers to one dimension of justice, is used three times in the text. Of the three times two are in the preamble and one in article 2. Another statement that reminds of the idea of justice in the agreement is the acknowledgement of the importance of human rights in the following terms:

Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity. (UNFCCC, 2015:1; UNFCCC, 2015:20)

When considered closely, each use of these categories related to climate justice and human rights has no legal force in the agreement. First of all, the agreement only takes note of the importance of climate justice, and it is necessary to underline that the mentioning of climate justice in the text is preceded by the expression *importance for some*, meaning that climate justice is not a general matter and should not be considered as such when taking

climate initiatives. Climate justice, in this context, is just a matter of a category of people whose voice can be heard like that of any group when considering climate change. Such restrictive way of qualifying climate justice has huge political and legal implications. Climate change, from the human and social point of view, is basically a problem of justice: justice for nature through the sustainable use of natural resources, and justice for all humans in the management of global warming. That is why climate justice cannot be considered as a matter solely for some people. In this regards, "we need to [...] open our eyes to how countless 'others' have suffered the true costs of the global ecological crisis, and struggled for survival." (Barca, 2016b:146) By not complying with the principles of climate justice, there is a great risk that the global fight against climate change will not go the right way. To this effect, the Paris agreement gives the first example of climate justice failure through the way it considers the concept of loss and damage. In fact, "the recognition of loss and damage as a part of the Paris agreement on the one hand and the exclusion of liability and compensation on the other were the crunch issues that dominated the negotiations on this issue from the very beginning." (Obergassel et al., 2016:27) The fact that the final agreement integrates the loss and damage resulting from anthropogenic emissions, mostly from developed countries, and immediately exclude the liability and compensation based on that recognition, for the other countries that participated the least to the crisis and that are the most exposed to the loss and damage is in itself a great climate injustice, perpetrated by the international community. On the other hand, when talking of the public participation in the climate decision processes, three elements are worth mentioning. In the first use, the agreement only invites the conference of the parties to explore ways of enhancing it, while in the second use it only affirms importance of public participation. The third and last use appears in Article 2 of the agreement as a call and an encouragement to the parties involved. On the basis of that, Victor Menotti from the International Forum on Globalization, reacting after the release of the agreement, concluded that "the Paris agreement will be known as the Polluters' Great Escape since it weakens rules on the rich countries and puts the world on a pathway to 3°C warming."¹⁷ Going in the same line Nick Dearden, the director of Global Justice Now declared in a press release immediately after the closing of COP 21:

¹⁷ For further details, refer to http://oneworld.org/2015/12/12/too-weak-too-late-says-climate-justice-campaigners/ Retrieved on 01/05/2017

The Paris negotiators are caught up in a frenzy of self-congratulation about 1.5 degrees being included in the agreement, but the reality is that the reductions on the table are still locking us into 3 degrees of global warming. This will have catastrophic impacts on some of the most vulnerable countries and communities. And yet the deal seems to be shifting more responsibility on those countries who are least responsible for the problem, and the finance that has been agreed on is just a fraction of what is broadly agreed is necessary for those countries to cope with the impacts of climate catastrophe. The bullying and arm twisting of rich countries, combined with the pressure to agree to a deal at all costs, has ensured that the agreement will prevent poor countries from seeking redress for the devastating impacts of a crisis that has been thrust upon them. (Dearden, 2015)

Such shift of responsibility, endorsed by the Paris agreement, consecrated a new form of global environmental injustice, an injustice conventionally built within the UNFCCC and that will be the foundation of global climate politics in the upcoming years. Nevertheless, given that this is the case with climate justice in the agreement, I will devote the next section to the analysis of the agreement position with regards to the long-awaited and expected JT to a low carbon economy.

5- The Paris agreement and Just Transition

One of the most important expectations was that the Paris agreement should definitely turn the page of fossil fuel and engage the international community on the path to renewable energies and JT to low carbon economy. The concept of JT appears only once in the agreement, in the following statement of the preamble: "The Parties to this agreement [...] taking into account the imperatives of a Just Transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities [...] have agreed [to put in place the operational part of the Paris agreement]." The limited importance of the concept of JT, as well as that of respect for human rights in the rest of the text, results from the fact that too many governments refused to commit to them in the operational sections of the agreement (Joyce, 2015). Nevertheless, despite such reluctance of governments and especially their refusal to mention them in the operational part of the agreement, some people see the only mention done in the preamble as a proof of engagement in the path of JT. According to the International Labour Organization (ILO) for example, in its post-COP 21 declaration, the agreement highlights in particular "the imperative of a Just Transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities." (International Labour Organization, 2015a) The ILO continues its

argument by quoting its General Director Guy Ryder, who gives more weight to that official position by declaring: "the world has come a long way in realizing that acting on climate change and promoting job creation and social inclusion are intertwined challenges of the 21st century, and ones that we must confront together if we are to realize the aspirations of social justice." (Ryder, quoted by International Labour Organization, 2015a) At this level, it is important to consider the declarations of the UN Agency and the UN diplomat from a critical perspective. First, the paragraph of the agreement on which they ground their arguments is just a statement made by negotiators and found in the preamble. Secondly, the operational part of the agreement does not make any reference to JT and no directives are given concerning the implementation of such transition, the respects of human rights in general and workers' rights in particular, among. That is why Teresa Anderson, Policy Officer at ActionAid International concluded:

The deal fails to deliver the rules and tools to ensure that climate change doesn't spiral out of control. Many in Paris seem to have forgotten the very people that this climate agreement was supposed to protect. The deal won't deliver support to help farmers in developing countries whose crops are failing as a result to climate impacts. It does not ensure that food security is protected, and it could even drive farmers off their land, by allowing dubious climate offsetting strategies. (Anderson, 2015)¹⁸

Equally, ETUC goes in the same line in its post-Paris statement in the following words:

The Paris agreement has failed to secure a clear commitment from the Parties that they will design and implement their climate policies with full respect for human rights and promoting a just transition for the workforce as well as decent and quality jobs. The reference inter alia to human rights, to gender equality, to intergenerational equity, and to just transition and decent work in the preamble of the text is indeed a significant acknowledgment of the importance of these principles in the context of climate action, but is not enough to ensure the wide public support that long term climate action will require. Tackling climate change requires a change of society, and this must be done in cooperation with people, not at the expense of their rights. (ETUC, 2016)

Finally, instead of officially consecrating the end of fossil fuel, the Paris agreement gives a great importance to techno-fixes as suitable solutions. For example, the terms technology/technological appear 63 times in the agreement, both in the preamble and in the operational part of the text. The multiple and repetitive use of this concept, to an extent,

¹⁸ For further details, refer to: http://oneworld.org/2015/12/12/too-weak-too-late-says-climate-justice-campaigners/

demonstrates the importance given to techno-fixes by negotiators of the Paris agreement. Furthermore, Article 10 clearly points out the importance of technology for the implementation of mitigation and adaptation actions, and establishes a technological framework to provide overarching guidance for the work of the Technology Mechanism of the convention. By providing this opening, the convention gives more flexibility both the private and public sector to reply and invest in techno-fixes mechanisms as solutions to climate change (Gigounas et al., 2015). This optimism and the importance given to technoscience appears to be the only option the agreement gives since, as Gigounas et al. rightly concludes

The agreement creates no direct restrictions on the extraction, release, or use of fossil fuels. Even in countries where the agreement would automatically constitute a source of national law, the provisions are not drafted to create direct obligations on energy companies or to impose liability for fossil fuel-based energy operation. Conversely, the agreement allows legislators to decide how to achieve its fundamental aims. The approaches parties may take are therefore unpredictable, and the energy industry would need to observe policy changes closely to prepare for new legislative regimes (Gigounas et al., 2015).

The importance attached to techno-fixes demonstrates the reluctance of the international community to fully engage itself in the path of transition to a low carbon economy. Instead, false solutions continue to be put forward. In fact, the insistence on the techno-fixes is problematic for three main reasons: first, it opens the road for corporates' investments in the development of techniques and technologies to keep on patching the wound created by global warming rather than looking for long-lasting solutions; in other words technological solutions such as geoengineering or carbon capture and storage among others, are "primarily concerned with maintaining business as usual regardless of humaninduced climate change or any other environmental problem." (Spash, 2016:929) Secondly, the carbon capture and storage and other technological solutions are still largely underdeveloped and untested (Buxton, 2016; Morgan, 2016). Thus, relying on such approaches implies that the already deteriorating nature will be used as a testing ground, with the possibility of creating other irreversible dangerous scenarios. Third, in encouraging techno-fixes solutions, global leaders did not consider the transversal negative effects they could have on other sectors. Here we can consider the negative effects that massive investments in negative emissions technologies such as the "Bio-Energy with Carbon Capture and Storage (BECCS), an expansion of trees and crops that extract carbon dioxide alongside the injection of carbon dioxide into geological formations" (Buxton,

2016:3), will have on agriculture and food security, since such technology requires the use of large surfaces. That is why Buxton concludes that the

Determination to constantly look for illusory techno-fixes and sustain capital expansion at all costs, is why despite the 'show' at Paris, the real action on climate change is more often to be seen in military and corporate strategies that seek to manage climate change consequences rather than tackle its underlying causes. (Buxton, 2016:3)

From the above analysis, we can conclude that the Paris agreement failed as far as complying with fundamental dimensions of climate justice and JT are concerned. Faced with that failure, movements such

La Vía Campesina, together with the World Forum of Fisher Peoples, the World Forum of Fish Harvesters and Fish Workers, 'It Takes Roots', a consortium of climate justice activists from Grassroots Global Justice Alliance, the Indigenous Environmental Network, the Climate Justice Alliance, and a handful of close allies led the demonstration from the Arc de Triumph to the Eiffel Tower." (Tramel, 2016:961)

This demonstration was replicated in other countries and cities around the world -as I will discuss in part III on the basis of the Portuguese case-. With this, climate justice movements and activists showed their determination to continue organizing and mobilizing themselves in order to force governments and decision-makers to engage in the path of JT to a low carbon economy.

From the analysis made in this chapter as the two previous ones, it is clear that if we want to keep our planet from climate catastrophe, we have to adjust our modes of exploitation of natural resources, production of consumables, consumption patterns and waste disposal mechanisms/techniques to adopt more sustainable and environmental-friendly models. This shift has to be sustained by climate policies that go beyond the failing market-based and state-centered approaches to be more participatory, and centered on climate justice demands. In fact, if under the Kyoto regime we witnessed an increase in the global GHG emissions, it is an indication that the system has to be changed. In other words, we have to move from a market-based fossil fuel economy to a low carbon economy based on JT principles.

PART II

CLIMATE POLITICS FROM BELOW

The continuous failure of the current global climate regime and the incapacity of the State-centered negotiations to build a global fair, effective and efficient international climate instrument have motivated the rise of global movements advocating for alternative ways forward, including environmental justice, labour, Indigenous and peasant movements. In the past decade, these movements, at different levels and from different perspectives, have been calling for non-market and social-justice oriented responses to the climate crisis, ranging from reform of the current system to a radical system change. In this part of the thesis, I will analyze those global mobilizations that focus on demands for 'climate justice'. The questions guiding my investigation at this level are the following: What actors have been excluded by the climate negotiations so far? What is their political proposal? How are they organized and how have they been making their voices heard? This Part is divided into three chapters; chapter one analyzes how global mobilizations for climate justice emerged and how they are deployed both in the international and national arenas, with strong international networking and solidarities. Chapter two focuses on unions and labour movements and their proposed JT project. Chapter three analyzes the OMCJC as a manifestation of political convergence and alliance between labour and climate justice organizations, a new space of dialogue for the articulation of labour's and climate justice movements' demands into a single struggle for JT to a low carbon economy. I argue that this campaign represents a good example of alternative way forward from the current failing UNFCCC models. The example and the analysis of the South African OMCJ campaign is instrumental in highlighting not only the success stories, but also the internal contradictions of a campaign that, at the present moment, is being adapted and implemented in several contexts around the world.

CHAPTER ONE

EXPLORING GLOBAL MOBILIZATIONS IN THE AGE OF CLIMATE CHANGE

This chapter is dedicated to the understanding of the nature and motivations of climate justice mobilizations from a double perspective: The first perspective concerns unions and labour movements which are enlarging their struggles to incorporate other social justice concerns among which environmental and climate matters. Their attempts have given rise to what is known as Social Movement Unionism (SMU). The second perspective is that of social movements that are more and more integrating labour concerns in their struggles. In order to properly approach this research objects, I organize my analysis around three mains points: First I approach global mobilizations as attempts to counteract the hegemony of neoliberalism based on Santos' work. Secondly, I explore Waterman's notion of SMU as a labour approach. Thirdly, I center on the climate justice movement contribution of social movements. The dialogue between these two last perspectives helps us understand the metamorphoses that unions and new social movements are undergoing to articulate both climate justice and labour concerns into a single struggle. It also helps to see the modalities under which both unions/labour and climate justice movements use that field of dialogue as an opportunity to re-invent themselves and better face the fast-evolving social challenges.

1- Global mobilizations: Counter-hegemony to neo-liberalism

Social movements have been variously defined in social and political sciences. Nevertheless, for the purpose of this research, I will use the definition given by Santos and Carlet, according to whom social movements can be understood as forms of collective mobilization that emerge in response to situations of inequality, oppression and/or unmet social, political, economic or cultural demands. In other words, the objective of social

movement is to bring a social change, understood as a "political process whose aims are the gradual inclusion of marginalized and vulnerable social groups and the construction of more substantive forms of social justice." (Santos and Carlet, 2010:61)

According to Santos, social resistance as a phenomenon is not new. In fact, it is closely linked to the very constitution of human societies, as a social opposition to the predatory dynamic and uncontrolled expansion of capital accumulation that has resulted in the marginalization and exploitation of a great part of the population. As such, "from the slave revolts to the struggles for national liberation, from the workers' struggles to socialist projects, from the new social movement to the Movement of Non-Aligned Countries" (Santos, 2005:xx) we can see how the marginalized have always come together in a more or less organized way to claim their rights. Nevertheless, with the fast development of the neoliberal globalization that the world is witnessing since last century, global capitalism has expanded its scope of action and increased the number of marginalized around the world, causing therefore more frustrations and enhancing the possibilities of social resistance. As Santos states,

The hegemonic practices [...] for the past decades have intensified exclusion, oppression, destruction of the means of subsistence and discrimination of large number of people, leading them to situations where inaction or conformism would mean death. Such situation converts the contingency of history into the necessity to change it. [...] The acts of resistance into which these situations were translated together with the revolution in information and communication technology that took place simultaneously, permitted the making of alliances in distant places of the world and the articulation of struggles through local/global linkages. Thus, alternative globalization was gradually constructed- alternative to neo-liberal globalization, a counter-hegemonic globalization, a globalization from below. (Santos, 2006a:5)

In other words, social movements are often born from social discontentment and resentment. People can be driven into social movement because of unfulfilled expectations that they view as being the consequence of unfavorable social order. In such a way that,

[To] predict where and when social movements are likely to emerge, one needs to go looking, in a given society, for the variations in the degree of dissatisfaction and social discontent, the signs of new structural tensions, the increased perception of injustice, the frustrations in new kinds of aspirations that affect part of the population (Pizzorno, 1990:76-77; personal translation)

Therefore, it is to face the neo-liberal hegemonic system and the social injustices into which it has locked the current society that many marginalized people and groups started mobilizing to challenge the system around the world. As such, in reaction to the

neoliberal globalization there started to be a counter-hegemonic bottom-up globalization made up of

Transnational networks and alliances among social movements, social struggles, and non-governmental organizations. From the four corners of the globe, all these initiatives have mobilized to fight against the social exclusion, destruction of the environment and biodiversity, unemployment, human rights violations, pandemics, and inter-ethnic hatred, directly or indirectly caused by neoliberal globalization. (Santos, 2005:xvii)

The World Social Forum (WSF) is a good example of such counter-hegemonic reaction but, because of its specificity and originality, it cannot be considered a social movement. Social movements are typically thematic movements, whereas the WSF is at the same time a multi-thematic and trans-thematic forum (Santos, 2008). Among the things that are common to social movements, we can mention their mobilization capacity, their ways of expression and the way they frame their struggles to make them attractive to the masses. As Santos and Carlet (2010) demonstrated, on the basis of the struggles of landless rural workers in Brazil, social mobilizations can take various forms. Among them the most recurrent and most important are:

- *Collective occupations* in the form of encampments. These seek to put pressure on the executive, legislative and judicial powers to demand appropriate agrarian reform and the resettlement of landless families.
- *Marches* are usually organized along highways, highly frequented streets, roads and public places to draw the attention of decision-makers on the conditions of populations living in the countryside, and put pressure on them to take appropriate decisions. This type of social mobilization often includes not only activists and organizing movements, but also a larger crowd of sympathizers.
- Fasting and hunger strikes that are often carried out in front of public buildings and offices to denounce the famine and difficult conditions of workers in the countryside.
- *Vigils*. This are usually 24 hours demonstrations that take place in front of public office to denounce a specific injustice situation
- Public demonstrations in large cities. In this case, marginalized people travels to a
 large city where they organize mass demonstrations to draw the attention of the city's
 populations on their living condition and attract more supporters for their cause.

As far as framing their demands is concerned, it is important to mention that they often politicize their struggles, contest the dominant models and advocate for the participation of grassroots movements. They propose alternatives to dominant neoliberal models, profess their anti-capitalism and are most of the time part of a larger transnational network (Santos, 2005).

The social mobilizations expressed through those repertoires of action around the world are part of a larger contestation movement, what Santos calls alter-globalization, or globalization from below. The alter-globalization or "another globalization" refers to the counter-hegemonic struggles that come as a reaction to the dominant neo-liberal globalization, the globalization of capitalism that has led to the intensification of oppression, the destruction of living environments, and destruction of lives and resources of vulnerable groups (Santos, 2008) and that is manifested among others through

globalization of production, markets and finance; the global restructuring of corporations and work; the development of new technologies like the Internet; a radically changed role for the State; the dominance of neoliberal ideology; large-scale tourism and poverty-induced immigration; worldwide media domination by the culture of corporate globalism; and a neo-imperialism that has concentrated control of poor countries in the hands of First World investors. (Brecher et al, 2000)

To counteract the action of such globalization anchored in the hegemonic consensus "known as the 'neoliberal consensus' or the 'Washington consensus'" (Santos, 2006b:394), imposed and led by international and transnational institutions such as the World Trade Organization, the International Monetary Fund, the World Bank, global corporations and other instruments of globalization, grassroots-led campaigns and movements of resistance have emerged around the world. In other words, to the institutions-led globalization imposed by neo-liberal governments and international institution is being opposed another globalization, a globalization from below led by grassroots movements. Event thought movements struggling from this perspective have various agendas such as resistance to privatization, fights against social-services cuts, opposition to structural adjustment, campaign against genetically modified organisms, struggles against land grabbing and environmental destruction among others, they nonetheless have a "unifying mission [which] is to bring about sufficient democratic control over states, markets and corporations to insure a viable future for people and the planet." (Brecher et al, 2000) Moreover, the struggles of those alter-globalization movements become truly global and trans-national

Through local/global linkages between social organizations and movements representing those classes and social groups victimized by hegemonic globalization and united in concrete struggles against exclusion, subordinate inclusion, destruction of livelihoods and ecological destruction, political oppression, or cultural suppression, etc. (Santos, 2006b:397)

The alter-globalization, globalization from below or insurgent cosmopolitanism as Santos calls it, refers to the myriad of locally linked grassroots struggles against the hegemonic order. The multiplicity of agendas and interests sustaining the fights of those local movements globally linked through international solidarities has allowed forms of mobilization that go beyond old sectional divisions among social, economic, political or environmental realms, to include intersectional struggles that articulate social, environmental, political, labour and economic concerns. In this research, I analyze the SMU and climate justice movement as the two most relevant examples demonstrating the intersectionality, internationalization and trans-nationalization of counter-hegemonic struggles.

Nevertheless, if those counter-hegemonic social mobilizations have become common in democratic societies, the current reality seems to put that way of social expression in danger. In fact,

The bellicose, securitarian ideology that is taking hold of both domestic and international politics is going to make it more difficult for activists to cross borders and to organise transnationally. The criminalisation of social protest is under way. In Latin America these days, increasing numbers of indigenous leaders are arrested as terrorists. Their crime? Blocking roads to stop multinational corporations from entering and destroying their ancestral territories." (Santos, 2016:19)

The silencing operation mentioned by Santos is not limited to Latin America. In fact, the ban imposed by French authorities during Paris COP 21 can be put in the same registry. Obviously, the decision of banning all the marches and public mobilizations surrounding the UN conference was motivated by security threats following the terrorist attacks that occurred a couple of weeks before the event. Just that immediately after the COP, the European football cup was successfully organized in France with Paris being one of the key metropoles for the event. All security measures were put in place and the event did not witness any major incident. This brings me to conclude that French authorities were able, with the help of the UN security system, to secure the organization and smooth running of popular marches and events during the conference. That is why I argue that the marches ban during the Paris COP was a tactic to silence social movements and allow

negotiators to put in place an agreement that, as we have seen in the first part on this work, was a complete failure from climate justice and JT perspectives. Another current visible example of silencing come from Cameroon where, since the anti-terrorist bill was passed in December 2014, authorities have been using it to block all social movements, arrest and condemn activists, and threaten populations by sending warning phone messages as a silencing strategy. Nevertheless, since "grassroots movements and struggles are crucial contributions to the project of a multicultural and cosmopolitan world, a world built on social and environmental justice, solidarity, active citizenship and high intensity democracy" (Santos and Nunes, 2004:4), social and labour movements will have to reinvent themselves, collaborate more and invent alternative ways of social mobilizations.

2- Social Movement Unionism: Going beyond workplace concerns

Social Movement Unionism (SMU), as its name indicates, is made up of two concepts of different origins: Social movements that reminds us the grassroots popular mobilizations trying to forge social change, and unionism that calls to mind workers' claims related to the workplace. In other words, SMU is an attempt to reconcile and articulate the demands of two constituencies (labour and social movements/communities) into a single struggle challenging simultaneously the employers and the State (Scipes, 2014). From the historical perspective, the birth and development of this type of unionism is said to have been influenced by three situations in the life of unionism: The first source of inspiration is the workers mobilizations during the 1930s great depression, when workers, going beyond the boundaries of race, skills, gender and religions, built strategic alliances with their communities, "sat down in their workplaces, prevented banks from evicting people who were behind on their mortgages, and marched with the unemployed. [They marched together in the same line] in Minneapolis and San Francisco, community solidarity with teamsters and longshoremen helped shut down the city." (Gindin, 2016)

The second source of inspiration is geographically situated in the global South, namely in Brazil, Philippines, South Africa and to a certain extent South Korea, during the 1970s and 1980s, when unions led the social struggles to demand not only the respect of labor rights, but also and above of the fundamental liberal and democratic rights for all citizens (Waterman, 1988; Waterman, 1991a; Lambert and Webster, 1988; Scipes, 1992;

Scipes, 2003; Von Holdt, 2002; Sutcliffe, 2012; Scipes, 2014; Gindin, 2016;). Taking for example the South African case which is of specific relevance for this research, Andries Bezuidenhout (2000) gives a very comprehensive account of the role played by trade unions in the fight against apartheid in the country. Going from the historical perspective, he situates the birth of the South African SMU in the in the late 1800s, when the rise in global demands for gold and diamond, and the discovery of new reserves in the country pushed the apartheid regime into more radical segregation practices and exploitation of black South Africans in the mines and the society. At that moment, labour movements and unions "became conscious that the apartheid State could not be brought to its knees through a narrow workplace focus, no matter how militant that focus might have been." (Lambert, 1998:74) Such consciousness motivated them to join the already existing struggles against the regime, up to the point that union leaders "were openly associated with the liberation movements [and because of that, they were also] prosecuted under legislation designed to destabilize oppositional politics." (Bezuidenhout, 2000:4) As Bezuidenhout continues, the political persecution in the decades 1950s and 1960s, led to the disintegration of the Industrial and Commercial Workers' Union (ICU) and to the exile of the South African Congress of Trade Unions (SACTU), two of the most powerful unions bringing together black South African workers with several liberation movements. It is important to mention that those unions fighting to gather together South African workers were operating in the context where, since the 1924 "Industrial Conciliation Act", black African workers were excluded from the legal definition of 'employee [and] [...] were not allowed to strike legally." (Ibid:4) As a result, all their claims and demonstrations in favour of black South African were characterized as acts of civil disobedience and assimilated to those of liberation movements. In 1990 SACTU returned from its London exile and merge with Congress of South African Trade Unions (COSATU), which was formed five years earlier from the merging of the Federation of South African Trade Unions (FOSATU) and the National Union of Mineworkers (NUM). With this merge COSATU became the strongest union in South Africa. From then COSATU was supporting liberation movements, but was never officially linked to them as previous unions in order to avoid difficulties with the political regime. By the time President Frederick De Klerk lifted the ban against most liberation movements, COSATU has become a strong labour and socio-political force in the country. That is why, "when ANC,

the Nationalist Party, government and several other political parties began negotiations on the nature of a post-apartheid society, COSATU was closely involved in these negotiations, and established a formal alliance with the ANC." (Idem:8) Under that alliance ANC has used COSATU structures, networks and prestige several times for campaigning during elections, while on its side COSATU has taken advantage to advance in its "strategy for a social transformation in a post-apartheid society" (Idem:8) with equal labour, social and political right for all South African, with the support of NUMSA. Based on this, we can say that the South African SMU which is today visible through various actions and campaigns, among which the OMCJC that I will analyze in chapter three of this part, has a long historical trajectory of collaboration with liberation movements to fight the apartheid regime. In relation to Portugal, and based on the CGTP case, I investigated what could be the history of SMU (if at all it has existed) in the country because, even though the country is not from the global South, it is nevertheless the focus of this research. In fact, as a long-time unionism and senior staff of CGTP I questioned stated, "CGTP-IN appears in October 1970, therefore, in the final phase of the regime, although, as we know, what really existed were the so-called inter-union meetings, since the constitution of a trade union confederation was forbidden." (Int 6) In such context, the confederation had no possibility of facing the already decaying dictatorial regime, which finally collapsed on April 25th 1974. Moreover, as the above mention staff confesses, domains of action are clearly determined in Portugal and, respecting that social division of responsibilities CGTP has historically limited itself to defending workers' concerns, allowing therefore other social movements to defend non-workplace related concerns. Equally CGTP since its creation, as testified by its strategic line of action, has demonstrated some concerns regarding migrations and consumption issues. But those concerns have so far been limited to declarations of condemnation 19 rather than concrete public actions. Nevertheless, the reality changed in 2012 with the confederation participation to the conference on "Strengthening the Peace Movement in Times of Crisis" organized by the Portuguese Council for Peace and Cooperation -CPPC (Conselho Português para a Paz e Cooperação)- where it expressed its support for the activities of the

¹⁹ For further analysis consult http://www.cgtp.pt/cgtp-in/areas-de-accao/internacional/migracoes/10812-cgtp-in-condena-a-proposta-de-politica-de-imigracao

council in favour of disarmament and against nuclear weapons. ²⁰ Through its official association and participation to the climate jobs campaign in 2016, the confederation started to fully integrate social struggles that are not limited to workplace concerns, in the line of SMU. Moreover, CGTP joined the March 11th 2017 march organized by the Democratic Movement of Women - (Movimento Democrático de Mulheres) - demanding equal rights, equal social and labour treatments for men and women in the country. Speaking on the occasion of that event Arménio Carlos, general secretary of CGTP, as reported by the national newspaper *Diario de Noticias*, declared that "there is no democracy in its fullness without equal rights between women and men." Such declaration demonstrates that by participating to the event, the confederation was fully aware that it is going beyond women's concerns as related to the workplace to integrate women concerns in the society in general. Based on that, we can conclude that, even though SMU was not developed in the fight against the dictatorship and for the democratization of the Portugal by CGTP, the confederation started deploying such form of unionism with its participation to the Climate jobs campaign.

The third inspiration source of SMU is more recent and is related to the United States; it is the 10th September 2012 Chicago Teachers Union (CTU) march, when 26.000 union's members are reported to have gone on strike. Joined by students, parents and community supporters, they blocked the streets of Chicago for 9 consecutive days to demand that systemic racism and inequality in Chicago's schools should be addressed appropriately (Gindin, 2016). Their struggles were also against the restructuring that aimed at transforming public schools into objects of economic competition and capital accumulations (Gutstein and Lipman, 2013). Common to all these contexts are the alliances between unions, social and community-based movements to ask for social justice (Novelli 2003; Lier and Stokke, 2006; Greer, 2008; Fougner and Kurtoğlu, 2011; Serdar, 2012; Gutstein and Lipman, 2013).

From the scientific standpoint SMU was first introduced in the academic literature by Peter Waterman through his 1991 article entitled "Social-Movement Unionism: A New

²⁰ For further analysis consult http://www.cgtp.pt/cgtp-in/areas-de-accao/internacional/solidariedade-e-paz/5626-cgtp-in-em-assembleia-do-cppc-e-conferencia-da-paz

²¹ For further analysis consult http://www.dn.pt/portugal/interior/jeronimo-e-armenio-carlos-juntam-se-a-manifestacao-pelos-direitos-das-mulheres-c-audio-e-video-5719014.html

Union Model for a New World Order?" In this text, Waterman conceived SMU as an approach or better said "a new theory and a strategy that will help unions escape the impasses, isolation, subordination and manipulations that the old idea has led to." (Waterman, 1991b:1) More than an intellectual concept, SMU is a political project aimed at the continuous transformation of unions and labour movements. If it is social by the way it mobilizes and the alliances it makes with other social actors, and

It is political by acting independently of the retreating parties of liberalism and social democracy, whatever the relation of the unions with such parties. It multiplies the political and social power by reaching out to other sectors of the class, be they other unions, neighborhood-based organizations, or other social movements. It fights for all the oppressed and enhances its own power by doing so. (Moody, 1997:4-5)

Ten conditions should be considered when talking of SMU. Basically, they should be unions or labour movements that

- 1- Struggle to go beyond defending wages to include a greater influence and control of the production process by workers and unions
- 2- Struggle "against hierarchical, authoritarian and technocratic working methods and relations." This should include as well the improvement of working conditions and the balance between work, family and social life
- 3- Integrate other non-unionized and the non-unionisable workers in their struggles
- 4- Integrate non-class and multi-classes movements in their struggles
- 5- Works cooperatively for the continuous democratic "transformation of all social relations and structures"
- 6- Collaborate intimately with political forces with which it shares the same interests and objectives
- 7- Collaborate with other social actors on a peer to peer basis
- 8- Take into consideration the new social challenges and integrate them in their struggles, always focusing on how they affect workers and their workplace
- 9- Create opportunities for and encourage workers to horizontally interact with other workers and with other democratic social forces

10-Facilitate direct contact and work with grassroots and community movements, and encourages international solidarity (Waterman 1991b).

These ten points summarize the steps that all unions should pass through to go beyond their struggles historically confined to workplaces and integrate other social concerns that affect them and their surrounding communities (Sutcliffe, 2012). It is a form of unionism that transforms unions and their members into co-militants in the cumulative defense of workers' rights and social justice, and that demands internal democracy in the internal management of union themselves (Scipes, 1992; Scipes 2014; Gindin, 2016).

This form of unionism is presented by many researchers as a way forward, and an opportunity for unions to re-invent themselves in the fast changing and complex world. Nevertheless, for it to be effective it should be deployed in small scale territories such as cities or regions (Camfield, 2007; D'Amours et al., 2012; Cock and Lambert 2013). Those small-scale territories have the potential of facilitating coalition building with local communities and other social actors with which unions share the same interest. They are also scales with the potential of rendering mass mobilizations easier. This inclusive nature makes of the SMU a very good attempt "to raise the living standards of the entire working class (including the unionized, the non-unionized and the non-unionizable) in particular, and the society as a whole; rather than limiting itself to the protection of "individually defined interests of union members." (Seidman, 1994: 2) Nevertheless, it is important to mention that the capacity of SMU to bring the expected change is questionable. This is because unions easily accommodate with the situation and hardly reinvent themselves fast enough to meet the fast-evolving social challenges (Gindin, 2016), and also because the organizational structure of unions does not allow them to act on the spontaneous basis as traditional social movements do (Engeman, 2015).

Such critiques are based on the evaluation of SMU as an isolated phenomenon and not in relation to the broader context in which it originated and the transversality of its struggles. We cannot contest the role that black unions, coupling their struggles with those of liberation movements and communities they identified themselves with, played in the abolishing of the apartheid regime in South Africa. The fact that they might have been unable to re-invent themselves at the right moment to face the new social challenges during the ANC post-apartheid regime for example is another matter that does not reduce their

merit in the fight against the apartheid regime. Obviously social struggles are unending struggles by their very nature, and it is necessary for social movement in general, and SMU in particular, to keep on re-inventing themselves to face the new challenges posed by the fast-evolving society. But their failures in a specific moment or a specific context cannot be validly used as invalidators of their whole action. "The notion of social-movement unionism evidently requires reference to the new social movements." (Waterman, 1991a:4) In the 1970s there was a growing interest for the emerging new social movements, which were then considered as engines of social revolution and as the unique suitable tool to analyze social mobilizations. Faced with that situation, there was a need to rethink unionism and rebuild it from a "novel conception of the radicalization and politicization of social struggles, one which enlarges the field of confrontation and struggles to the whole of civil society." (Laclau and Mouffe, 1981:20) Unions therefore re-invented themselves in the 70s when faced with the birth of new social movements, and the new social challenges forced them to extend their struggles beyond the workplace (Waterman, 1993). Today unionism has to continue re-inventing itself in line with new social movements to address labour, climate and social justice issues in a synergetic way.

3- Climate justice movements

3.a- Understanding justice in the global warming context

One of the key issues in the context of environmental matters in general and global warming in particular is the issue of justice. To better understand the concept of climate justice, we have to situate within the broader concept of environmental justice. In fact, even though the concept is still very disputed and polemical, environmental justice can be understood and defined from three different perspectives: First as a movement born in the USA in the 1990s, "originating from, and interacting with the civil rights movements" (Barca 2014:539), and specially stressing on the relation between race and pollution. Secondly it can be understood as an activist concept that motivates and pushes for environmental action. In fact, "framing issues in terms of environmental (in)justice allows mobilizations to transcend national borders and attract the attention of wider sets of activists and public when a local issue gets re-framed as a matter of common interest or global public good." (Sikor and Newell, 2014:153) Third, it can be viewed as a concept

which helps in the analysis of environmental problems; in this context, environmental justice appears to be a very good "conceptual framework for understanding how environmental costs of production and waste disposal have unevenly affected human beings along lines of social, spatial, racial, gender and generational difference" (Barca 2014:540) among others. In the same perspective, and going further, Sikor (2017) defines the concept in the following terms:

Environmental justice is basically distinguished by three basic concepts: Distribution (how equitable natural resource benefits, and how environmental harms are distributed among people), participation (who gets to have what say in public decision-making on environmental matters) and recognition (how we acknowledge people's collective identities and histories of resource management [e.g. indigenous peoples' identities as peoples and their histories of economic, political and cultural marginalisation])²²

Fraser and Schlosberg go in the same line when they invite to think about justice in ways that extend beyond distribution to include recognition and representation (Fraser 1997; Fraser 2005; Schlosberg 2007). In Fraser's understanding, recognition refers to the process of acknowledging and valorizing cultural as well as status differences and distinctions (Fraser 2013), being them related to gender, class, race, sex or national origin among others (Harlan et al 2015). Martin et al. (2015) despite their change of vocabulary, talk of the same dimensions of environmental justice, while relating each dimension to a specific human need, as demonstrated in figure 2 below.

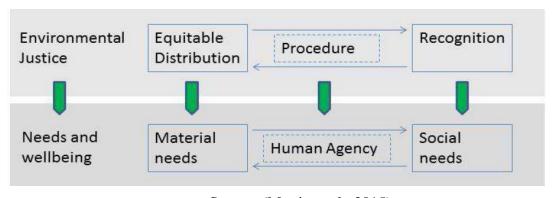


Figure 2: Dimensions of environmental justice

Source: (Martin et al., 2015)

²² This is from a presentation made during an online course in February 2015. Available at https://www.futurelearn.com/courses/environmental-justice/steps/26653 Retrieved on 10/04/2017

Nevertheless, it is important to note that participation cannot be possible without the ability to effectively influence the process, as all the stakeholders need to be endowed with the necessary power, capacity and expertise to effectively bring their own contribution and influence the outputs of decision-making processes. That is why, to make the understanding of the concept of justice complete, Amartya Sen (1993) brings about the idea of *capabilities*, which refers to all the basic necessities and needs that have to be addressed prior to all stakeholders fully participating to socio-political processes. Such capabilities include, among other things, a number of basic necessities such as "jobs, living wages, clean air and water, and affordable and accessible public transit, health care, housing and food." (Harrison, 2011:15) In short:

Distribution, recognition, participation and capabilities are inseparable concepts of justice because in order for people to gain access to material (distributional) social goods, they must be valued and included (recognition) through access to society's decision-making institutions (participatory parity) and society's basic institutions (Capabilities) (Harlan et al., 2015:136)

These ideas of justice are at the foundation of Martínez-Alier's (2002) concept of environmentalism of the poor. In his The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation, first published in 2002 and now translated in several languages, Martínez-Alier drew attention on the struggles of the subaltern classes, mostly poor peasants from the global South, in defending their environment. Nevertheless, it is important to mention that going beyond environmental struggles in the global South the environmentalism of the poor equally relates and "manifests itself through conflicts that have an ecological element, including social justice claims, and involving impoverished populations struggling against the State or against private companies that threaten their livelihood, health, culture, autonomy." (Healy et al., retrieved on 11/7/2017) Considered from this perspective we can say that even though the emergence of the environmentalism of the poor can be situated in the global South, its manifestations are visible everywhere in the world through local "resistance (expressed in many different languages) against the disproportionate use of environmental resources and services" and the by the "unequal distribution of ecological costs and benefits." (Idem.) Environmentalism of the poor can be said to be the environmentalism of the "empty belly" in contrast of the environmentalism of the "belly full" (Martínez-Alier, 2002) irrespective of the geographical location. In short, the environmental/climate justice movement, even though it is a multifaceted one,

has gone a long way and built an identity around the world through its various struggles. In fact

Since the 1980s and 1990s, the global environmental justice movement has developed a set of concepts and campaign slogans to describe and intervene in such conflicts, such as environmental racism, popular epidemiology, the environmentalism of the poor and the indigenous, biopiracy, tree plantations are not forests, the ecological debt, climate justice, food sovereignty, land grabbing, water justice (Martínez Alier et al., 2016:733)

Despite this multiplication of concepts that is partly due to the different contexts and different challenges against which the movements are fighting, the reality remains that those groups' struggles try to articulate social and environmental justice into a single struggle in the changing environment context. In order to be more effective, they try to build a certain trans-nationality through their various networking and the international solidarity that support their various local and national struggles, based on the commonality of their different demands.

Moving from this perspective, and noting how all environmental justice struggles imply a labour dimension and involve working-class subjects, Barca (2012) framed the concept of working-class environmentalism, to stress the struggles of working-class people for the amelioration of their living and working conditions. Intended as a complementary concept with the environmentalism of the poor approach, working-class environmentalism refers to the lower classes of the society, those who from their daily contact with the environment, earn their living from manual work and are most of the time not included in the decision-making channels and arenas. Nevertheless, it is important to note that the demands of those subaltern categories of the society are first about "the distribution of environmental goods and bads, health and wellbeing [...], protection from hazards but also the ability to enjoy the beneficial services from the environment such as clean air and water, green space, or healthy, nutritious and affordable food." (Boone and Klinsky, 2016:330). Secondly, they are also concerned about their lack or limited participation in (Roberts the decision-making process and Parks, 2007). In this sense, environmental/climate justice movements "demand participation in the decision-making, justice in the decision made, protection from the changes made and adaptation to local needs." (Murillo 2013:37) In short, the question of justice has become a central issue in the current global climate struggles, and motivated the emergence of many movements and

activities geared towards the inclusion of social justice concerns in the global fight instruments and its implementation in every climate public policy and action.

Starting from the broad and inclusive understanding of environmental justice, the concept of climate justice can be singled out as climate change viewed from the perspective of justice. In fact, even though all have not participated at the same level in the occurrence of climate change, it affects everybody; more to that, the most affected are those participating the least to the emergence and enhancement of the crisis because of their poor adaptive and resilience capacities. When it comes to decision-making, all do not participate in the same way in the process and, both climate decision-making processes and the current climate regime affect negatively the rights and dignity of some minorities and Indigenous people by excluding them from the decision arenas in one side and, in the other side by further commodifying, trading and exposing their environment and resources, instead of providing sustainable solutions (Kill, 2015; Leonardi, 2015). That is why, on their side Bruno et al., (1999) define climate justice in opposition to the current global climate governance. According to them, climate justice should be seen as an alternative to the current dominating market based and false solutions proposed the current climate regime. In other words, to the market and false solutions regime put in place by greenhouse gangsters for their own benefit, we have to oppose a grassroots climate justice approach as solution to the climate crisis. Harlan et al. rightly summarize the justice dimensions of climate change in the following statement:

Climate change is a justice issue for three reasons: First, there are *causes* of climate change: Social inequalities drive overconsumption, a key source of unsustainable levels of greenhouse gas (GHG) emissions. Second, the *impacts* of climate change are unequally felt by the rich and the poor, and disparate impacts will continue to increase in future generations. Third, *Policies* designed to manage climate change have starkly unequal consequences, and the process by which emissions reduction and climate adaptation policies are decided tend to exclude the poor and the powerless (Harlan et al., 2015:127)

By fighting for climate justice specifically, the focus is put on some basic principles that are wisely and tactfully defined by Harlan et al. in the following statements:

- Equity in distributing the burdens and sharing the benefits of climate change in communities and among nations;
- Social and political processes that recognize currently or previously marginalized groups as rightful participants in the governance and management of climate change;
- Freedom on peoples to make choices that maximizes their capabilities to survive now and in the future;

• Rebuilding damaged historical relationships between parties, correcting past wrongs against humanity, and restoring the Earth. (Harlan et al., 2015: 136)

Such climate justice ideal, that "emerged as a new framing for climate change activism, one in which the grassroots energy of the environmental justice movement intersects with the global catastrophe that is climate change" (Thomson, 2014:89), should not only be inter-generational, but also and above all intra-generational, hence the need of conceiving new patterns of production, consumption and disposal that are environmentally friendly, socially just and economically sustainable. Those climate justice struggles and ideal are carried out, both at the local, national and international levels by a sub-category of the climate movement generally called climate justice movements.

3.b- Climate movements: Categorization and mobilization

Plural by their very nature, environmental movements can be categorized into various groups, among which the environmental/climate justice movements. In this regards, Jamison (2010) for example classifies them in three main categories, namely: 1) "old" movements that are socialist-orientated and that usually take the form of political parties or formations, 2) the new environmental movements that have mostly been institutionalized in the form of environmental NGOs and 3) the emerging climate justice movements that take the form of more non-institutionalized social struggles. Also, for Reitan and Gibson (2012) climate movement can be classified in three groups, namely 1) the group made up of reformist ENGOs, 2) the Marxist-inspired groups and 3) the anarchist group. Goodman follows the same tri-dimensional classification but with a different vocabulary centered on *transition*, *post-political* and *anti-systemic* terminologies. Table 5 below summarizes his classification of climate movements.

Table 5: Three types of climate movements

Three types of climate movements				
	A "transition" movement	A "post-political" movement	An "anti-systemic" movement	
Focus	Climate politics and policy	Social relations with climate	Climate injustices + elite power	
Role	Instrument for climate transition	Expression of climate crisis	Harbinger of post- capitalism	

Drivers	Exclusion in climate policy	Crisis of meaning in climate crisis	Capitalist commodification
Solutions	Ecological modernization (transition)	Ecological sufficiency (within limits)	Generative value (beyond exchange value)
Practices	Strategic planning climate contention	Post-political climate consensus building	Cross-sectoral politicization of injustices
Theory lineage	Pluralist political process approaches	New social movements approaches	Critical and eco-socialist approaches
Examples	ENGOs and their allies (Climate Action Network)	conservationism (Conference for Degrowth)	climate justice movements (Climate Justice Now!)

Source: (Goodman, 2017:15)

These classifications are partly in line with the environmental governmentality categorization developed in part I chapter two of this work. In fact, Jamison's new environmental movements, Reitan and Gibson's reformist ENGOs group as well as Goodman's "transition" movements go in line with ecological modernization, while their respective new emergent climate justice movements, anarchist group and "anti-systemic" movements go in line with civic environmentalism. However, it is important to note that both the respective "old" movements, Marxist-inspired groups and "post-political" movements find no correspondence in the environmental governmentality model, while the green governmentality finds no correspondence in their respective classifications. The three threefold categorizations elaborated by Jamison, Reitan and Gibson, and Goodman neglect an important aspect related to the place of knowledge and knowledge producers, being them individual or institutional, in the climate governance and mobilizations. Their approaches do not give account of movements such as the Global Forest Coalition and the World Rainforest Movement who have been highly instrumental in bringing into light the consequences of the rapidly expanding agrofuel monoculture for the biodiversity and for food security around the globe, not only through their mobilizations, but also and above all through their research and analyses (Tokar, 2014).

Beside those classifications, others that are of relevance in rendering account of the current climate movement are those proposed by Guha and Martínez-Alier (1997) on one side and Dietz and Garrelts (2014) on the other side. Even though they propose a tri-dimensional classification centered on ideologies such as the cult of wilderness, the gospel

of eco-efficiency and the environmentalism of the poor/environmental justice (as demonstrated in part I chapter two), the reality today proves the domination of the two last categories. In this regards, movements such WWF and IUCN for example that at the origin were purely conservationist movements nowadays endorse and encourage technological solutions as suitable approaches for the preservation of the environment (Martínez-Alier, 2002), therefore becoming closer to approaches traditionally adopted by adepts of the gospel of eco-efficiency. The important climate justice mobilizations, on their side, demonstrate the growing importance of the environmentalism of the poor/environmental justice ideal in the current climate governance. Dietz and Garrelts (2014) propose instead a two-dimensional classification of climate movements: Climate modernizers and climate justice advocates. The merit of this classification is that it simplifies the understanding of social movements based on a single divisive line: Climate movements that support reforms or change within the current economic model can be simply labelled climate modernizers (this include Guha and Marninez-Alier's cult of wilderness and gospel of eco-efficiency categories), while those that plead for a system change (including Guha and Marninez-Alier's environmentalism of the poor/environmental justice category) are labelled climate justice advocates. From this perspective, most established NGO such as Friends of the Earth, WWF, IUCN, Greenpeace and 350.org are more in the line of ecological modernization, advocating the implementation of more democratic mechanisms within the current economic model, and the development of technological solutions as a chance to halt global warming (Dietz and Garrelts, 2014). This approach is not shared by the entire climate movement. Unlike this first group, there is another group of movements, more radical in their demands, and determined to fight for climate solutions within a completely new system, with a system change as their leitmotiv: What is generally and generically called climate justice movements.

The notion of Climate Justice Movement (CJM) refers to a range of movements that, around the world, struggle to articulate climate change and social justice concerns into a single social struggle. The concept of climate justice appeared for the first time in the scientific literature in 1999 in a report titled *Greenhouse Gangsters versus Climate Justice*, published by Kenny Bruno, Joshua Karliner and China Brotsky on behalf of the San Francisco-based Corporate Watch (CorpWatch) group (Tokar, 2014). In their report Bruno et al. (1999) focused on three categories of environmental destroyers: 1) The oil industry

also called greenhouse gangsters who are oil exploiters and marketers, and who use their power to maintain the status quo, ensuring that business as usual scenarios of neoliberalism are maintained; they use all possible means to buy scientific and public opinions. 2) The climate culprits such as the automobile, coal and electric utilities industries that participate highly to the emission of GHG either in their production or consumption cycles. 3) The climate hypocrites such as the World Bank and other international and financial institutions that hold public discourses on the fight against climate change, but continue to finance or invest in the fossil fuel industry and to put in place mechanisms that will enhance the current neoliberal environmental destructive system. The strategy of those climate gangsters, culprits and hypocrites is always "to DENY the problem, DELAY solutions, DIVIDE the opposition, DUMP their technologies on the developing world and DUPE the public through massive PR [Public Relations] campaigns." (Bruno et al., 1999:4) To counteract that strategy, it is important to oppose a climate justice approach that "integrally links human rights and ecological sustainability, recognizing that the communities fighting to live free of the environmental and social problems created by big oil are also on the front lines in the battle against climate change." (Idem.) As the authors continue, climate justice struggles around the world are carried by movements struggling against the interests of the oil industry, communities affected by industrial pollution or faced with the destruction of their natural resources, Indigenous people trying to safeguard their cultures and lands, as well as "activists working to generate democratic control over corporations and to reverse the destructive dynamics of globalization, along with those fighting the environmentally destructive policies of the World Bank and the World Trade Organization." (Idem.) From the analyses of those authors we can already take note of some elements that characterize CJM nowadays such as their radicality (counter-hegemonic movements fighting the system from outside), their diversity (bringing together labour movements, activists, affected communities, Indigenous movement etc.) and the multi-dimensionality of their struggles (articulating environmental/climate, labour, social justice, anti-transatlantic trade etc.). According to Claeys and Delgado (2015) CJM, which were "mostly environmental and development non-governmental organizations and urban-based social movements" have expanded and included demands common to Indigenous and Peasant social movements such as food sovereignty, land and resource rights, and the restructuration of the global food system, as

well as those specific to Indigenous' movements such as self-determination, autonomy and respect of their original ways of relating with non-living beings in their respective territories. These ranges of movements are active at the international, national and subnational levels with some common characteristics.

While climate justice new social movements do not claim a unified political strategy, their praxis to date clearly fall into three main arenas: strategic interventions at the annual negotiations carried out under the UN's Framework Convention on Climate Change (UNFCCC); challenges to the expanding extraction of fossil fuels; and a variety of efforts to expose corporate-driven "false solutions" to the climate crisis. (Tokar, 2014:135)

CJM such as the Climate Justice Now! Coalition, Climate justice network, la Via Campesina network and Plane Stupid among others are examples of radical movements that advocate for the radical system change (Dietz and Garrelts, 2014). This anti-systemic group of environmental movements argues that establishing more equitable and justice mechanisms is impossible within current capitalist development models, and it articulates social injustice and environmental concerns to build a climate justice critique that is put at the center of its struggles for system change (Goodman, 2009; Chatterton et al., 2012; Schlosberg and Collins, 2014).

Stemming from this internal division within the global climate movement, the CJM is faced with the challenge of becoming a real counter-hegemonic force with regards to neoliberal climatopolitics (Bond, 2015; Claeys and Delgado, 2015). To build itself internationally, it has to take advantage of the experience of Indigenous and Peasant movements with which it is more and more collaborating, since those movements have agendas that go beyond environmentalism and have very well established transnational networks (Bullard and Müller 2012; Claeys and Delgado, 2015). At the moment, the global CJM is made up of an inclusive network of local struggles for fossil fuels divestment, reduction of consumption and waste in the global North, community control over means of production, empowerment of peasants and localized system of food production, respect of indigenous rights, payment for the ecological debt from the global North to the global South, and water justice among others (People's Protocol on Climate Change, 2008; Salleh, 2010; Perez et al., 2016). Even though there is no centralized governance structure, the movement can be seen as global because its local struggles are part of systemic class of conflicts that are also found on the regular basis on other parts of the planet, with similar social actors and forms of mobilizations (Martínez-Alier et al., 2016). In this perspective,

what makes the trans-nationality of the CJM is the common nature of its various local struggles and the nature of the authors involved, namely local climate justice, environmental, Indigenous, Peasants, unions and labour movements among others. The OMCJC that I will analyze subsequently is a good demonstration of such transnationalization of the climate justice struggles; in fact each of the campaigns is independently implemented locally or nationally, but the commonality of their various struggles has created a sense of solidarity and internationalization, in such a way that today the "expression international climate jobs campaign" has become mainstream among climate jobs activists, even though no such campaign exists at the global level and there is no global mechanism coordinating the various national/local climate jobs campaigns. Another element that accounts for this universality is the international solidarity that characterizes the different local struggles (Sikor and Newell, 2014; Martínez-Alier et al., 2016). The example of the people's climate march is edifying in this regards. In fact, this is a North American march organized by American climate movements in general and to which also participate climate justice movements, but that has almost become a yearly universal affair because of the solidarity marches organized around the world in support of the main march that traditionally takes place in New York city. The September 2014 march that saw the gathering of more than 400.000 activists demonstrating along the streets of New York and demanding for strong climate action, had more than 200 solidarity marches in more than 175 countries according to the organizers.²³

Even though climate justice activists have been very active during the COP meetings, it is nevertheless important to mention that the premises of their constitution as a global movement can be traced back to 2002 when international NGOs such as the World Rainforest Movement, Friends of the Earth International and the Third World Network in a join initiative with Corpwatch and the Indigenous Environmental Network among others organized a meeting in Bali to "develop the 'Bali Principles of Climate Justice', a comprehensive, 27-point program aimed to 'begin to build an international movement of all peoples for Climate Justice.'" (Tokar, 2013:132) Such initiative, as Tokar continues, will be enhanced in 2004 in Durban South Africa. That year climate justice activists and market skeptics concerned by the injustices inherent to the climate crisis, and that are

²³ For more details refer to https://peoplesclimate.org/history/

entertained and enhanced by the market solution instituted by the Kyoto protocol, gathered in Durban to discuss a common strategy that was later expressed in their "Durban Declaration on Carbon Trading". Such meeting saw the participation of representatives of climate justice movements from Brazil, India, Samoa, US, UK and well as South Africa among others. This group constituted in Durban and other climate justice activist from all over the world organized a remarkable mobilization in 2007 in Bali when the U.N annual climate conference was held there. Nevertheless the 2009 Copenhagen summit has so far recorded the biggest mobilization of climate justice activists and movements around a global climate summit. In fact, during the negotiations more than 50.000 people attended the alternative "Klimaforum", and more than 100.000 went down the streets to demonstrate and request for climate justice and system change, given the strategic role the Copenhagen summit was expected to play by putting in place a post-Kyoto accord (Tokar, 2014). Following the failure of Copenhagen and the decision of world leaders to put in place a legal-binding post-Kyoto agreement in 2015 in Paris during COP 21, CJM around the world started mobilizing, with the hope of rectifying their previous shortcomings and being more effective in shaping the outcomes of negotiations in Paris (Bond, 2015; Cimbes, 2015). Nevertheless, their mobilizations were limited because of the ban that was imposed by French authorities following the terrorist attacks a couple of weeks before the summit. Despite that, we still witnessed a great international solidarity of global CJM through the various marches that were organized all over the world, in solidarity with those who defied the ban and marched in the streets of Paris both on November 29th and December12th 2015. Unfortunately, even though they have been very active in the yearly negotiations carried out under the UNFCCC, their post-COP activities have been less mediatized and they have equally enjoyed less concern from social scientist, and have not been subject to important studies like other new social movements (Bond, 2015). This research, among other intends to cover such gap, with the focus on the OMCJC.

CHAPTER TWO

JUST TRANSITION: AN ALTERNATIVE WAY FORWARD FROM THE UNFCCC

The difficulties faced by the international community and world leaders in putting in place effective and efficient policy to halt climate change as we have seen in part one, coupled with the already visible and projected negative effects of global warming, has pushed many environmental organizations, social movements and climate justice activists in one side, and on the other side trade unions and labour movement to start mobilizing for the social dimensions of climate change to be taken into consideration. In this regard, the first set of movements have been proposing climate justice as alternative to the current inefficient global climate regime, while the second focusses on the JT project as a strategy forward. Nevertheless, it is important to mention that environmental/climate justice is a meta-concept that encompasses all the categories of injustices and all the social classes in the global warming context, while JT, as a tool proposed by labour, pursues the same objectives, but with a focus on workers. That is why, in this chapter, I will analyze the concept of JT in relation to environmental/climate justice; that is, as a specific tool that can be used towards obtaining climate justice goals. For that, I will organize this chapter in two main parts: The first part is centered on the emergence of the labour's environmental consciousness that resulted in the birth of the JT ideal and subsequently in the development of the environmental labour studies. The second part focuses on the understanding of the concept of JT, its principles and its limits.

1- Environmental Labour Studies: An emerging research field to understand labour environmentalism

The separation between labour and the environment has been a dominating fact in the history of both labour movements and environmental movements. The protection of the environment has often been seen by union and workers as threat to their jobs, and by corporation as additional useless investments. When at last unions started to integrate environmental concerns, it was purely for calculative reasons. The environment had to be cared for either because it provided space for relaxation and recreation, or because environment pollution was detrimental to workers' health. In any of the cases nature was conceived as external both to workers and to the production process (Räthzel and Uzzell, 2013); i.e nature was "constructed as a pristine place external to society and to the labour process" (Smith, 1996:41). On their side, environmentalists and environmental movements in general advocate that nature should be protected from unsustainable and uncontrolled exploitation of its resources, while within the same environmental movement, environmental justice movements and their sympathizers are more radical and relate the destruction of the environment to the unlimited exploitation resulting from industrialization processes, and the productivism and consumerism imposed by capital. They point out that environmental protection and capitalism are fundamentally antithetic, and only a system change can be the first and fundamental step towards the protection of the environment. Carolyn Merchant tactfully summarizes such contradiction between current development models and environmental protection when she argues that we are in the presence of "particular forms of production in modern society - industrial production, both capitalist and State socialist - [that] create accumulating ecological stresses on air, water, soil, and biota (including human beings) and on society's ability to maintain and reproduce itself over time." (Merchant, 1992:9) In other words the capitalist mode of production is unsustainable not only because of its impact on the environment, but also and above all because it exposes human societies in general, and leads to the appropriation of nature and natural resources by the capitalist minority. That is why "when unions defend their jobs at the expense of nature, they are at the same time defending the relations of production (the private appropriation of nature) under which they are themselves subordinated." (Räthzel and Uzzell, 2013:5)

The traditional divide between labour and environment, environmentalists and unionists, environmental movements and labour movements/unions has brought about a situation where "environmental movements have accused trade unions of defending jobs at any cost to nature, while trade unions have accused environmentalists of putting nature before workers' needs for jobs, and indeed, for survival." (Räthzel and Uzzell, 2013:1)

Such divide is also replicated in the academic and research field. As Räthzel and Uzzell point out, "the separation between environmental studies, focusing on the effects of production processes on nature, and labour studies focusing on the effects of production processes on workers can be traced back to the separation between natural sciences and social sciences." (Räthzel and Uzzell, 2013:7) In fact, as Räthzel and Uzzell continue their argument, environmental studies that are mostly related to the natural sciences domain focused on the impacts of both human activities, productivism, consumerism and natural processes on the environment, while labour studies, as a discipline within the social sciences, mostly focused on workers' exposure, vulnerabilities, working conditions, health and wages among others; there was practically no dialogue between the two fields of research. That is what brought them to ask the following two-dimensional fundamental question: "where's the environment in labour studies, where's the labour in environmental studies?" (Ibid:4) Realising the research gap, they initiated a new field of research known as Environmental Labour Studies. This new and fast-evolving field of research, according to its initiators, aims at studying the multifaceted and complex relationships between work, the worker and the environment while taking trade unions policies as starting point. Developing such field of research became important because, "while academic research remains largely corralled in its disciplines and sub-disciplines, union movements across the world have been moving fast to incorporate a concern for nature by taking on climate change as an issue of trade union policies." (Räthzel and Uzzell, 2013:8) It is therefore important to study this strategy shift, in order to understand how labour is responding and will continue to respond to the challenges of changing environment in a global warming context, and the solutions it is proposing.

The first official attempt to reconcile labour and the environment in global labour policies dates back to 1972. In fact, that year

Based on the initiative of the workers' groups, the International Labour Conference (ILC) adopted the *Resolution Concerning the Contribution of the International Labour Organization to the Protection and Enhancement of the Environment Related to Work* [...] to define a possible ILO contribution to the international discussion on the working environment. (Olsen and Kemter, 2013:42)

This initiative was situated in the broader context of the UN conference on the Human Environment that took place the same year in Stockholm. This was the also the first time, the UN was organizing a summit to discuss environmental issues and the ILO, as

a UN Agency, did not want to remain at the margins of the organization's reflections. In that regard, since the UN Stockholm conference declared that the change in the environment is having great impacts on humans, ILO brought its own contribution from the labour's perspective. Nevertheless, this initiative was still under the full control and leadership of the UN Agency, and not of trade unions. After this event, another most significant element that contributed to the incorporation of environmental concerns in the agenda of unions, at least at the international level, remains the First Trade Unions Assembly on Labour and the Environment that took place in 2006 at the Headquarters of UNEP under the initiative of UNEP, ILO and Sustainlabour (Murillo, 2013; Barca, 2015). During the event that witnessed the participation of more than 104 representatives of trade union organisations from all over the world, environmental matters were raised as one of the key concerns to be addressed by unions (Murillo, 2013). This also appears to be the very first time unions at the international level started taking global warming very seriously. Since the 2006 conference, there has been a quite remarkable effort by trade unions officials to incorporate climate concerns into unions' programmes and policies (Murillo, 2013; Rosemberg, 2013). This international environmental action of labour led to the inclusion of ITUC as observer in the UNFCCC negotiations (Murillo 2013), and their continuous participation to the subsequent COPs. During such participations, unions do not only directly involve in negotiations as observers, but also, they take part to the mobilizations often organized around COPs. As an example, we can mention the case of Copenhagen in 2009, when more than 400 trade unionists from around the globe mobilized in the streets of the Danish capital to demand an ambitious post-Kyoto deal (ITUC, 2009).

Nevertheless, it is worth mentioning that the building of the labour environmental consciousness can also be explained by the social context. In fact, with the growing importance of environmental concerns nourished by the scientific alerts on the danger of global warming and the steps taken by the international community to halt it, unions and labour movements, just like other constituencies, found themselves in a limited-options situation. As such, "this coming together of both labour and environment is due to a current global context in which it is difficult to ignore environmental challenges when making economic proposal. [...] Current socio-economic decisions need to include environmental limits in their equation." (Murillo, 2013:29) In this context, trade unions and workers' environmental concerns shifted from safety and health issues, and from the

fight against the pollution of factory environment or the destruction of the nature as recreation and leisure space, and started to include broader and general concerns such as climate change, and the need for a JT to a low carbon economy (Olsen and Kemter, 2013).

To fully incorporate those environmental and climate change concerns into the life and strategies of trade unions and labour movements is a challenging task. It implies two important steps to be taken by unions and their members: The first step concerns their ability to investigate the effect of their local actions in the global scale (Meyrowitz 2005) in the case of bottom-up and grassroots-like initiatives, like the multiple climate jobs campaigns being initiated directly by union or with strong support of unions in several parts of the world. On the other side they have to investigate the local effects of their global actions/decisions in the case of top-down initiatives, such as the climate initiatives taken by international trade unions organs like ITUC for example. The second step concerns the ability of unions and their members to re-invent themselves and their ability to collaborate with other movements. In fact,

Comprehensive union policies that merge the protection of workers and the protection of nature have several implications for trade union policies. They imply that unions need to (re)invent themselves as social movements, aiming not only to improve their members' lives but to transform societies and the present economic system. This implies [...] that trade unions need to build alliances with environmental movements. (Räthzel and Uzzell, 2013:11)

Such collaborative initiatives are already visible throughout the world. Nevertheless, in the context of this work, I will mostly consider those initiatives that are related to the collaborative struggles for JT.

2- Just Transition: A common ground between labor and climate justice

To better fight for the inclusion of climate justice ideals in the current global climate regime and secure its implementation by public policy-makers at all levels of the society, global CJMs basically advocate for a transition to an economy which is based on the use of renewable energies, is socially just and secures sustainable climate jobs; what is generally called JT to a low-carbon economy (Bruno et al.,1999; Wykes, 2013). For example, in the case of the US, "in 2012 nearly 30 groups organized as the Climate Justice Alliance proposed a nationwide campaign for a 'Just Transition' away from fossil fuel

dependence." (Tokar, 2014:131) A year later, the Climate Justice Alliance launched the *Our Power Campaign* to advocate a national JT to a low carbon economy in the USA.²⁴ Such national initiatives have multiplied around the world, and one of its best expression are the climate jobs campaigns that I will analyze in the next chapter and subsequent part of this thesis.

2.a- Origin and definition Just Transition

The term JT was coined by Californian activists seeking to improve relations with workers in industries affected by environmental degradation. The original organization behind the call is the *Just Transition Alliance*, founded in 1997. However, as a concept, its break-through moment came when the Canadian Labour Congress [CLC] released its 2000 report entitled *Just Transition for workers during Environmental Change*. This report gave the term JT a solid basis within the labour movement (O'Driscoll 2011). According to that report, JT is a safeguard that

Provides a measure of workers' participation and control over [...] [their] own future. It is a building block for a sustainable economy, one essential element in a progressive environmental policy. [...] It is about fairness and environmental justice. It is about quality employment in an economy based on sustainable production and infrastructure. It is about communities as the focus of Just Transition programs - communities as centres of diverse, labour-intensive industries, with a strong public sector to support them. It is, above all, about alternative employment in a sustainable economy (Canadian Labour Congress, 2000:)

It is in this context that the concept of JT emerged, to refer to a transition from an unfair neoliberal economy and its high-carbon modes of production and consumption to a fairer low-carbon economy. The concept was therefore adopted in other context and, in 2006 was officially endorsed by the government of Argentina as part of its negotiations strategy within the UNFCCC (Varela 2006; Republic of Argentina 2006; Barbier 2010; Roberts 2010).

In fact, there is a clear contrast between the current context urging for solutions to mitigate and adapt to climate change, while securing development and jobs in a just and fair society in one side, and in the other side the inability of governments to provide sustainable and federative solutions to those two challenges. This contrast reveals the need

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²⁴ For more details refer to http://movementgeneration.org/our-work/movementbuilding-2/cjaourpower/

to implement enhanced mechanisms to influence climate decision-making processes at the global level. It is in this regard that, at the international level, the ILO and ITUC have been instrumental in pushing the JT agenda. In the context of global environmental negotiations in general and global climate negotiations in particular "the UN's ILO (International Labour Organization) has been arguably most active in promoting this agenda [Just Transition agenda]." (Barca, 2015:393) When it comes to the specific case if the ITUC, we can say that since its creation in 2006 from the merging of the International Confederation of Free Trade Unions and the World Confederation of Labour, as Barca (2015) demonstrates, the confederation created a department in charge of formulating its official position on climate issues. Since then, this department has played an important role in pushing forward the JT agenda both within the confederation and as part of its official position and strategy in the global climate debates, where it participates as observer.

The JT strategy, as defended by those organizations, recognizes that support for environmental policies are conditional on a fair distribution of the costs and benefits of those policies across the economy, and on the creation of opportunities for active engagement of those affected in determining their future wellbeing and that of their families. It is a mechanism that aims at promoting sustainable development that is socially just, environmentally friendly, and economically efficient, and that emphasizes governance and good management in order to provide decent life to millions of people (Olsen, 2010).

For ITUC, JT is conditioned to the fulfillment of six fundamental conditions:

- 1. Make green opportunities real: Major investments are needed to develop long-term sustainable industrial policies, aimed at retaining and creating decent and "green"/sustainable jobs, "greening" all workplaces and developing and deploying new low carbon technologies. Innovation policies, including social innovations, public investment and reorientation of financial flows towards sustainable development are also key.
- 2. **A sound starting point:** Research and early assessment of the effects of climate change and climate change policies on employment, skills, livelihoods, gender equity and other social aspects are crucial for better preparing change.
- 3. **Come & talk!:** Governments have to consult with unions, employers, communities, and all groups which need to be part of the transformation. Democracy, social partners' consultation and respect for human and labour rights form the baseline conditions in order to ensure a smooth and effective transition towards a sustainable society.
- 4. You train the workers, the future gets closer: Changes on the ground require trained workers on clean processes and technologies; this is key for absorbing and developing new technologies and for realising the potential of green investments. This must include formal and non-formal education, training,

retraining, and life-long learning for workers, their families, and the communities that depend upon them.

- 5. It's also about protection! Vulnerability may be a source of reluctance to support change. Social protection schemes, including active labour market policies (social security including social insurance and income maintenance, and job placement services, among others) and access to public services at affordable prices (health, basic energy, water and sanitation needs) are key for ensuring justice in the transition.
- 6. **One size does not fit all:** Each region and community at risk requires its economic diversification and climate change adaptation plan; a "free-market adaptation" will only lead to suffering and opposition to climate measures (ITUC, 2009:10-11)

2.b- Principles of Just Transition

• Meaningful environmental transition and sustainable development

The essential element of the JT project is to reconcile two important challenges of our modern societies, namely the protection of the environment and the development of economies, while ensuring that workers are not victims of the transition to a greener economy. In order to fight against climate change, ITUC proposes an approach anchored in the basic dimensions of sustainable development. As such

[ITUC] congress is committed to promoting an integrated approach to sustainable development through a Just Transition where social progress, environmental protection and economic needs are brought into a framework of democratic governance, where labour and other human rights are respected and gender equality achieved (ITUC, 2006:1)

The equation of reconciling environmental protection and sustainable development seems difficult to solve, especially in the current capitalist development model which is highly dependent on fossil fuel. According to the UNFCCC (2009), an economic transition is needed to shift global economic growth patterns towards a low emission economy based on more sustainable production and consumption, promoting sustainable lifestyles and climate-resilient development while ensuring a JT of the workforce. That is why in the countdown for the Rio+20 conference in 2012, and as part of their struggles for JT, trade unions proposed specific "measures to meet social, economic and environmental objectives, such as promoting targets for creating green and decent jobs, strengthening and integrating environmental and fair fiscal policies and reinforcing social protection systems." (Murillo, 2013:38)

Nevertheless, it is important to mention that by defending jobs creation according to sustainable development models, what is often referred to as *green jobs*, mainstream movements such as ILO and ITUC, among others, adopt a vision of JT that is not commonly shared. They take for granted that greening jobs and ensuring economic growth is necessarily the best option needed when addressing climate and social justice issues (Barry, 2013). As Hampton suggests, "a green boss is still a boss, a green capitalist is still capitalist." (Hampton, 2015:67) In other words, by so doing, those mainstream institutions endorse a soft version of JT that does not require a fundamental and radical change of current modes of production and consumption that have led to the crisis. Instead, they prefer to rely on the metamorphosis and expansion of the market, and the development of new technologies as solutions to the crisis (Cork and Lambert, 2013; Barry, 2013; Hampton, 2015). On the contrary, going in the same line with these authors, Barca (2015) suggest that JT jobs should be created completely outside the current system and should follow different production and consumption patterns, and not jobs rebranded and greened following sustainable models proposed in some sort of reformed neoliberal economy.

• Representation, participation and employee involvement

Conceiving and implementing suitable participatory mechanisms is a key factor that can guarantee the success of any project. In the JT strategy, not only the representation of all stakeholders should be ensured, but also the full involvement of all parties in decision-making processes and their outcome should be guaranteed, thus contributing to the enhancement of the sense of belonging. In this context, the participatory process does not merely aim at consulting employees and labour movements, but at obtaining their consent and their active participation in designing and implementing the transition. The importance of insisting on consent rather than consultation lies in the basic difference between the two approaches, as pointed out by Maharjan et al.,

Consent is the result of an independent and collective decision-making process to a certain proposal or action. On the other hand, consultation is a mechanism as a democratic right for expressing and exchanging views and opinions on a certain issue, proposal or action to influence its outcome or final decision. (Maharjan et al. 2012)

The principle of representation, participation and involvement of workers does not merely aim at giving a hypothetical influential role with regards to the outcomes of the decision, but above all, it aims at providing them with the tools, and letting them be the full actors of the final outcomes (Kenfack, 2016b). That is the reason why JT provides a measure of workers' participation and control over their own future. It considers participation as a building block for a sustainable economy, one essential element in a progressive environmental policy (Canadian Labour Congress, 2000; ILO, 2015b). The JT project should always be built on the full and informed participation of governmental, workers, private business or civil society entities, including the youth, and addressing the need for gender equity. (UNFCCC, 2009)²⁵

JT is clearly inspired by principle 10 of the 1992 declaration from the United Nations Conference on Environment and Development known as the Rio conference:

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. (United Nations Conference on Environment and Development, 1992)

This declaration lists three environmental democratic rights to be respected, namely: The right to participate in environmental decision-making, the right for citizens affected by environmental decisions to receive pertinent information, and the right to access judicial and administrative proceedings. In fact, workers have a right to know how their employers will plan for de-carbonisation, a right to speak and to be consulted and a right to co-determination. Decisions that are taken over the heads of workers are not sustainable. Decisions have to be taken with the workers (European Federation of Public Service Unions, 2015). According to the Trade Union Confederation, environmental transition happens faster and most efficiently when workers are involved, because in that case they, who are most affected by environmental policy, are confident that their views and needs are being fully considered and responded to. In other words, "involving employee representatives, such as trade unions, in the planning of environmental measures- as advocated by Just Transition- is one way to make better use of employees as drivers of environmental change." (Trade Unions Congress, 2008:4). In the same line:

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²⁵ It is important to note that despite this simplistic declaration of the UNFCCC, the concept of JT is much more conflictual and diverse in its interpretation by various trade-unions. The following section will dwell a bit more on such conflictual nature.

Researchers at the European Trade Union Institute (ETUI) have developed a new tool called the European Participation Index (EPI) designed to examine the relationship between worker participation and social cohesion, economic performance and sustainable development in Europe. The Index shows that companies located in countries that recognise a greater participatory role for workers operate more in coherence with social and ecological objectives and this has a beneficial effect on European society as a whole. Europe needs skilled, mobile, committed, responsible workers that are able to identify with the objective of increasing competitiveness and quality without fear of losing their job. The 'strong rights' group of countries surpassed the other in a wide variety of key indicators: GDP per capita, labour productivity, overall employment rate, employment rate of older workers, youth educational attainment, expenditures on R&D, progress on the reduction of greenhouse gas emissions and consumption of energy." (European Trade Union Institute, 2009)

That is why, more than a simple formality to be accomplished, workers' participation appears to be a necessity to be validated and implemented if we want to create sustainable climate jobs in the current changing environment and in the JT contexts.

• Stable employment and long-term planning

The question of jobs stability is central to the JT project. In this sense, the transition process should not only consider the creation of environmentally friendly jobs, but also and above all it has to consider the situation of those workers currently working in sectors that will be affected. Following this, "the main aim of Just Transition is the continuation of employment without loss of pay, benefits or seniority." (O'Driscoll, 2011) As such, in the spirit of JT conceivers and activists, one of the most important and non-negotiable elements is the creation and preservation of jobs for workers. JT "expresses the idea that structural changes in the productive apparatus aimed at reducing its carbon content should not be paid by workers through job losses and destabilization of local communities." (Barca, 2015:392) In their analysis, Aubé et al. (2016) go in the same line by invoking the notion of *ecological unemployed*²⁶ that could result from ecological transition. For them, to avoid this new category of unemployed from emerging, labour has to be put at the center of ecological transition, and this has to pass not only through the creation of new jobs, but also through trainings and skills development to ease the transition for those whose jobs will either be transformed or disappear as a result of transition. This transition, in their

²⁶ It is important to note that the transition to a low carbon economy will not only result in the creation of new jobs in clean sectors, but also and above all, it will cause the loss of multitudes of jobs in current polluting sectors, or reduce the activities in some sectors, resulting therefore in reduction in the number of employees. Sectors such as road and air transportation, intensive agriculture, Gas and coal-fired power plants, oil exploitation will be highly affected and results in jobs losses. The JT project has to think, plan in advance and properly prepare the reconversion of this new ecological unemployed people.

understanding needs to take into account the individual psychological preparedness of workers who will be forced to change their employment sectors. If those factors among others are not taken into consideration, there are risks that they can play as enhancing factors of social conflicts. In short, JT is not only related to labour but also to the social security, justice and wellbeing ideals.

The security dimension refers not only to the guarantee of long-term employment with possibilities of advancement, conversion to new positions requiring new skills and the social protection mechanisms put in place to secure their social integration and post-labour life (ITUC, 2009; ILO, 2010; ILO, 2015a; UNFCCC, 2016), but it equally refers to the health and safety of employees in their job environment (TUC, 2008; ILO, 2015a; Hampton, 2015; Yeo, 2017). For that purpose, employers, under the control of governments, should put in place fair and just advancement mechanisms, develop and implement clear follow-up and training plans to enhance workers' capacities and ensure possibilities of job conversion. Equally, proper health and security mechanisms and policies are to be conceived and applied in the working environments so as to secure not only the physical integrity, but as well the health wellbeing of those categories of workers who are most exposed, on a daily basis and who, in contexts of pollution and environmental degradations, are the most affected and the less prepared to face the crisis.

As for the justice dimension, it is important to note that JT does not only rely on the creation of proper and cleaner jobs, but it equally fights for all to be offered the same chances of accessing and remaining active in the job market. In fact, it is concerned with

[The] creation of more decent jobs, including as appropriate: Anticipating impacts on employment, adequate and sustainable social protection for job losses and displacement, skills development and social dialogue, including the effective exercise of the right to organize and bargain collectively. (ILO, 2015b:6)

As far as employees are concerned, it relates to the equitable access to the job market for all, equity in the chances to access managerial roles, obtaining a right and fair salary, participating in companies' decision-making and having their contributions, competencies and opinions recognized.

Concerning the wellbeing dimension, it is worth noticing that the value of labour does not only lie on the financial income it generates for the workers, but also and above all, in its social meaning of self-fulfillment, solidarity and self-identification (Collinson, 1992; Lamont 2002; Räthzel and Uzzell 2011; Räthzel and Uzzell, 2013). As such,

corporations have the responsibility of putting in place policies, mechanisms and activities that create and enhance a sense of belonging and self-identification of employees with their work. In order to make sure such jobs are created in the low carbon economy context, initiatives such as the climate jobs campaigns emerged and are continuously developing around the world. Those campaigns can be viewed as initiatives that tend to articulate trade-unions' claims for JT and social movements' demands for climate justice into a single struggle.

However, in their search and quest for clean jobs, both labour movements and climate jobs campaigners/activists still have to answer a key question: Are green jobs one component of a new *green capitalism*, which is turning the climate crisis into a new opportunity for capital accumulation? Or are green jobs, as part of a *green economy* which will be "based on rights, sustainability principles and decent work" able to meet the challenge of a JT? (Sustainlabour 2011) Not being able to respond to such question in a clear and precise way, the campaign preferred the terminology of climate jobs, rather than green jobs. In fact, according to the campaigners,

Climate jobs are jobs that cut down the amount of greenhouse gases we put in the air and thus slow down climate change. 'Green jobs' can mean anything – jobs in the water industry, national parks, landscaping, bird sanctuaries, pollution control, flood control and many more things. All these jobs are necessary. But they do not affect global warming (Campaign against climate change, 2009:7)

Climate jobs are thus based on three principles: ecological sustainability, social justice and State intervention. Moreover, they are "jobs that: 1. Reduce the amount of greenhouse gasses we emit, to make sure that we prevent catastrophic climate change; 2. Build our capacity to adapt to the impacts of climate change [...]; 3. Provide and secure vital services, especially water, energy and sanitation." (One Million Climate Jobs Campaign, 2011:9) More to that, climate jobs include:

Retrofitting of buildings for energy conservation, the retraining of workers to become energy auditors, developing renewable energy sources, promoting sustainable transport systems, supporting community-based sustainable industries, community revitalization projects, moving towards a complete waste recycling program, and creating a publicly owned infrastructure that will manage in the public good (Canadian Labour Congress, 2000:10).

• Government backing²⁷ and a united purpose

Achieving JT relies on a high level of commitment from all relevant stakeholders, including governments, trade unions and employer federations (O'Driscoll, 2011). As main organizers and legitimate managers of public affairs in each national and sub-national territory, national as well regional and local governments have the responsibility of ensuring the wellbeing of their populations, the sustainable management of resources and the preservation of the environment within the limit of their territorial and functional boundaries. This State intervention is of great importance because the State is seen as the only entity capable of investing in social infrastructures and projects for the sake of the populations and social cohesion without any prior intention of financial gains. In fact,

It will take State power and public investment to build the infrastructures of a renewable-energy economy. Such projects should be promoted as ways of bringing cheaper and inexhaustible energy from the sun and wind to economically struggling working people, and creating good jobs doing socially useful work. Just as our modern fossil-fuel infrastructure - highways, dams, rural electrification - was a product of public works and state investment, so should the green energy economy be (Huber, 2016)

Such investments should be done following a large and inclusive social consultation, so as to allow all the stakeholders and social partners to get involved in the process. To this effect, a practical example can be seen in Australia. In fact, according to a report produced by Bill et al., an example from Australia shows that

Just Transition requires government intervention and community partnerships to create the regulatory framework, infrastructure and market incentives for the creation of well-paid, secure, healthy, satisfying environmentally friendly jobs with particular attention to appropriately meeting the needs of affected workers and their communities (Bill et al., 2008:5).

Equally, as the report continues, it is the responsibility of governments to scale up the transition to minimize the costs on the affected the communities.²⁸ It is nevertheless

²⁷ As we will analyze in a further section of this research, the place and the role that governments and other institutions have to play within the JTproject and implementation is highly disputed. In the context of this analysis, I will consider governments as main leaders of the transition. This choice is based on the fact that the climate job campaign gives a great importance to the leadership of governments.

²⁸ Bill et al. (2008: 11) give a very detailed list of the responsibilities that governments, at all levels, have to assume for the JT to a low carbon economy to be effective and efficient. According to them, Government support must include:

[•] Assistance for both displaced workers and for contractors;

[•] Adequate notice of workplace change and closures;

[·] Consultation and full engagement of relevant unions;

important to note that this principle of JT takes the concept of State for granted. It seems to consider States as integrated and unitary entities that can take initiatives and follow them freely without any external pressure. As Barca points out, this vision is a bit naïve, since it

Does not take into account the fact that the Washington Consensus has forced virtually all governments to terminate social policies wherever possible and ignore (when not destroying) local economies, while adopting a competitiveness model based on ever lower labour costs and the hobbling of union power at the behest of global capita (Barca, 2015:394).

It is in this context that unions, labour movements, climate jusice movements and other JT defenders are more and more mobilizing and calling for alternative solutions that respond cumulatively to labor, social and climate justice demands.

• Social justice and a fair distribution of costs (and benefits)

The distribution issue is one of the central elements, not only for climate justice activists and movements, but also for the global climate negotiations and governance. In fact, it is closely related to the vulnerability on one side and, on the other side to the benefits resulting from adaptation and mitigation of global warming. In the vulnerability aspect, it is important to mention that it refers to the unfair distribution of global warming effect on countries and populations; among countries, those that contributed the most to the occurrence of the situation are more prepared than those that did not. At the intra-national level, those having less financial and material resources are more impacted than the rich. If this unfair distribution of the natural climate burden does not result from any human distributive mechanism, we cannot say the same thing concerning the distribution of costs

- Support for innovation and partnerships for new local industries;
- Investment in research and development and infrastructure;
- Training for alternative employment tailored to local and individual needs and opportunities;
- Special targeted support for older, disabled and less educated workers;
- Relocation assistance for displaced workers;
- Income maintenance, redundancy entitlements and retraining allowances;
- Cheap loans and subsidies for new industries and employers;
- · Compensation and equipment buy-outs for contractors;
- Assistance programs extended to workers employed by contractors;
- A Just Transition requires investment in training programs and apprenticeships
- to create a highly trained 'green' workforce;
- The introduction of a Job Guarantee.

and benefits. That is the reason why we can argue that it is not environmental change itself but the distribution of the burden of adjustment to environmental change that gives rise to the need for JT arrangements. The current distribution is profoundly unfair. Individual workers bear most of the costs of the adjustments, while they share in the environmental benefits only to the extent that members of society as a whole benefit (Canadian Labour Congress, 2000). In this regards, considering the condition of each social category when we talk of distribution becomes a matter of great importance, and the role of JT in such context will be to ensure that the costs of environmental change will be fairly shared.

In fact, the distribution of the climate burden and benefits is a matter of social and climate justice. At the international levels, States, and above all richer ones have the responsibility to equip poorer and weaker ones to better adapt to global warming, this will ensure that the latter do not endure the greater share of the climate change burden because of their lack of material, financial and technical resources. At the national and sub-national levels, national, regional, local governments and other stakeholders have the responsibility of ensuring that the most vulnerable communities, households and individuals are provided with means and capacities to better face the adverse effects of climate change. This requirement for fair distribution equally applies to the distribution of benefits resulting from the preservation of the environment, and other natural resources. Everything has to be done so that all components of the society, being them at the local, national or international level profit from incentives generated by environmental protection initiatives. As such, "Just Transition recognizes that support for environmental policies are conditional on a fair distribution of the costs and benefits of those policies across the economy" (Trade Union Congress, 2008:3), and on the creation of opportunities for active engagement of those affected in decision processes. This will ensure that the costs of environmental are shared fairly. JT "furthers social justice and equity and minimizes social barriers to the implementation of climate policies by ensuring that the costs and benefits of these policies are evenly distributed, and that these policies address communities' current and future needs." (Aguinaga, 2016) Consequently, failure to implement it "implies that the cost of moving towards sustainability will devolve wholly onto workers in targeted industries and their communities" (Canadian Labour Congress, 2000:4), and that will certainly be an obstacle to the effective and efficient fights against global warming at the international, national and sub-national levels.

In short, the main aim of the JT project is to make sure the current highly carbon intensive economy is turned into a low and possibly a zero-carbon economy. This goes from the conviction that "the shift to a low carbon economy will mean massive changes in the way we produce goods and services, in travel and transport, and in the pattern of future investment." (Trade Union Congress, 2008:36) Such transition is not only concerned with environmental issue and economic stability but, above all, it stresses on matter of social and environmental justice by giving a great importance to the redistribution of climate burdens and benefits, the wellbeing of workers and the creation of secure and sustainable climate jobs, the participation of all stakeholders in decision-making processes, and the government backup to make sure the interests of capital do not prevail over the wellbeing of society in general and of workers in particular. In this same line, the ITUC stresses the need "to create green and decent jobs, transform and improve traditional ones, and include democracy and social justice in environmental decision-making processes." (ITUC, 2009:10) With this, JT can be described as a tool the trade union movement shares with the international community, "as a means for smoothing the shift towards a more sustainable society and providing hope for the capacity of a 'green economy' to sustain decent jobs and livelihoods for all." (Ibid:5)

2.c- Just Transition: One project, diverse understandings

Beyond its apparently unanimous acceptance on the part of official documents, the concept of JT is not homogenous. Even though all trade-unions and CJM advocate for JT to a low carbon economy, they do not always agree on the actors and institutions to involve as well as on the nature of jobs to be created. Also, the views of global union organizations demonstrate a great deal of variability in the interpretation of the strategy to be implemented (UNEP, 2008; UNEP, 2011; ILO and UNEP, 2012; Räthzel and Uzzell, 2013; Stevis and Felli, 2015). Applying the affirmative and transformative approaches to remedy injustices developed by Nancy Fraser to JT, Gough comes up with a two-sided classification of the alternatives offered by the thinkers of JT. For Fraser, there is an "affirmative" view that calls for the restoration of justice within the current world order configuration, and a "transformative" view according to which justice principles can be implemented only in the context of a completely reformed and transformed world and social order (Fraser, 1995; Fraser, 2005). When it comes to the specific context of JT, the

"affirmative" view can be applied to the range of views that call for more equity within the parameters of the existing political economy, while "transformative" view refers to those that call for more profound changes of the political economy (Gough, 2010). Rosemberg (2013) also sees the internal contradictions of JT defenders from a double perspective: Those who defend green growth and those who advocate for no growth. The first group believes that the solution to the environmental/climate crisis lies in the reform of the market and the institutions, but still within the current market economy system. For the advocates of this vision (among which we can mention the united Steelworkers in the USA, ETUC and ITUC), "markets can be greened if the externalities of economic production and processes on the environment are priced." (Rosemberg, 2013:22) The second group, as she continues her argument challenges the first and calls to think *outside the box* to "ensure that our societies will prosper and be more socially just in a resource-limited world." (Ibid:24) This second view of JT is mostly endorsed by system changers such as climate CJMs.

In what follows, to better account for such internal contradictions, I will refer to Stevis and Felli's (2015) tri-dimensional classification of JT based on three approaches: 1) shared solution, 2) differentiated responsibility and 3) socio-ecological approaches.

> Just transition and the "shared solution" approach

According to sympathizers of the "shared solution" approach, JT to a low carbon economy should be built on dialogue and mutual understanding among all stakeholders involved. Such stakeholders include, among others, trade-unions at the international, national and local levels, international as well as national and sub-national NGOs, global and regional governmental organizations. This perspective is based on the premise that JT can be properly carried out within the current existing framework, provided there is a previous and continuous dialogue on the procedures and implementation mechanisms. Here, trade-unions are called to participate in current decision frameworks in order to make the voice of the workers heard.

This approach to Just Transition, therefore, remains largely within the parameters of affirmative environmental justice. While placing questions of equity front and centre and committing to green innovations, it does not envision transformative changes in the political economy (Stevis and Felli, 2015: 10).

Therefore, for this approach, JT is neither framed as altering the current balance of power, nor as an opposite alternative to the current social order; it is simply viewed as a mutually beneficial process that can lead to a socially acceptable society and a successful greening of the economy. That is why there is no need to transform current social, political and economic institutions; all that is needed is a better dialogue and understanding among actors, within already existing structures. Nevertheless, this vision is not shared by all JT advocates. Others plead for a differentiated responsibility both in the conception, development and implementation of JT.

> Just Transition and the differentiated responsibility approach

The differentiated responsibility approach gives a great importance to the defense of the losers or victims of the current social and economic order. By so doing, the focus is put on the interest and protection of workers in the production chain, and the role that unions have to play in defending them. Unions, as workers' representatives, have a great power on which they can capitalize when it comes to participating in decision-making processes. This approach therefore focuses on that nuisance power as a means that unions can use to make workers' voice heard and secure the respect of their rights and interests. For this approach, States and capital are to be attributed the greatest responsibility for the current environmental crisis, because of their unsustainable exploitation and use of natural resources. That is why, in the context of JT, they equally have a great responsibility towards workers (as well as their families, their communities, and their unions). They have to make sure that the rights and jobs of workers currently employed in sectors that are at risk because of environmental degradation, deregulation and regulations policies and mechanisms are not endangered. The current global crisis being a result of the capitalist modes of exploitation, production and consumption of resources, dominating all the aspects of the socio-political and economic frameworks, it results that the society does not have to rely on the same structures and forces to solve the crisis they created; that is why "this approach to the Just Transition is placed closer to the transformative environmental justice category because it underscores that structural rules are at play and that any transition must modify or constrain their operation." (Stevis and Felli, 2015: 11) Such transformation does not only concern the structures and the rules, but it equally concerns the jobs to be created; in fact, this demands transformation of existing jobs in order to make them sustainable rather than simply "green."

> Just Transition and the socio-ecological approach

The socio-ecological approach to JT basically advocates for democratic planning and public control and ownership of natural resources. According to developers of this approach, the management of resources cannot be left in the hands of capital, and socioeconomic regulation abandoned to the will and speculation of the market. States have to take responsibility not only in regulating, but also and above all in managing and leading the transition to low carbon economy. For this to be effective and efficient, public funding and control over resource exploitation and transformation as well as technologies, need to be strengthened (Stevis and Felli, 2015). This approach aims at a radical change of social structures and order, and counts on the continuous pressure of civil society in general and workers' unions in particular to force governments and capital to engage the JT journey. In words of the International Transport Workers' Federation (ITF) and Global Labor Institute's talking about JT, "none of this will occur without strong pressure from trade unions and their allies in society. Workers and communities have a decisive role to play in the planning and implementing of the transition." (ITF and Global Labor Institute, 2010:47) For this last version of JT, there is no way for a dialogue with current institutions; they need to be confronted and forced to action through massive public contestations, marches and even civil disobedience. It is based on this ground that Stevis and Felli conclude that this last vision is more "confrontational (and less prone to advocating winwin solutions), because it rests on the assumption that the current crisis is being structured by an unequal distribution of wealth, property and power in capitalist society." (2015:12) Definitely, as Stevis and Felli continue with their argument, this socio-ecological approach, just like the eco-socialist approach advanced by the ITF as well as some national labour unions and networks, is the most radical approach, and the closest to the system change perspective.

Movements advocating for this approach go beyond struggles to simply push for job creation in a greened economy. They refuse to abide to market solutions, and prefer to adopt a radical critique of capitalism (Barca 2016), advocating therefore for a complete

system change and not simple patching of the current system. In the words of Cock, such socio-economic radical changes, in a changing environment context requires:

An integrated approach to climate change, unemployment, and inequality, as well as a rejection of market mechanisms to solve these problems. Unlike some other formulations of the green economy, in this model the link between social justice and climate change is acknowledged, and the need for radical, structural change is emphasized. (Cock 2014:24)

This last approach is the one endorsed by CJMs in general, including Climáximo that I am analyzing in the case of Portugal. Equally such radical change also concerns the position that trade-unions and labour movements have to adopt in their struggles for JT. In fact, the gap between trade unions and environmental justice movement, jointly involved in climate jobs campaigns, is still consistent; the first set of movement, motivated by some sort of political realism with regard to workers whose rights they stand for, defend a JT project within the current neo-liberal system through mechanisms of eco-efficiency, eco-modernization and other technological solutions. The second set of movements holding the current system entirely responsible of the climate crisis and judging it completely incapable of leading the transition poses system change as a non-negotiable preliminary step towards JT. It is in this regards that Barca remarks that:

If they continue supporting capital's "green" restructuring of the global economy, trade unions will find themselves on the opposite side of peasant and indigenous communities, landless rural workers, unpaid domestic and social reproduction workers, subsistence farmers, and all those who bear the costs of "green" capitalism- fostering renewed cycles of dispossession and subjugation. (Barca 2016)

Just to sum up, JT, despite its internal differentiations and approaches, appears to be a consistent approach if we want to integrate labour, social justice, and climate justice matters in the current climate regime, and foster the shift towards a post-fossil fuel socio-environmental development path. That is why, "with growing awareness of the climate crisis and its far-reaching impacts, the labor movement [supported by new social movements] is again calling for a Just Transition to ensure that workers will have a voice in shaping the changes necessary to move away from fossil fuels." (Dougherty, 2016) It is in this regard that, in order to force global leaders to act, labour and climate justice movements in the past years have been organizing joint mobilizations around the world. The OMCJC in general and the Portuguese *Empregos para o Clima* in particular, give us an opportunity to closely analyze those mobilizations.

CHAPTER THREE

ONE MILLION CLIMATE JOBS CAMPAIGNS: WHEN LABOUR AND SOCIAL MOVEMENTS STAND TOGETHER

The current global climate regime, as we have seen in the previous chapters, has failed to deliver the expected outcomes in terms of reduction of global GHG emissions. Despite that, States at the international level continue to rely on the market and possible techno-science discoveries and development to solve the crisis. Beside that global climate crisis, we have the unemployment situation and workers' condition issues that equally need to be addressed. It is in this context that voices have emerged requesting for the resolution of both crisis through an integral and integrative approach. Triggered by alter-globalization and anti-hegemonic mobilizations, labour and environmental/climate justice movements started to elaborate common strategies and struggles, which led to the One Million Climate Jobs Campaign (OMCJC). Such campaign seeks not only to cultivate the environmental consciousness of unions and labour movements, but also and above all to mainstream labour concerns into climate negotiations and policies not only at the global, but also and above all at the national and sub-national levels (Arolowo, 2015). In this chapter, I analyze the OMCJC as a global strategy that brings together labour and other social movements, including climate and environmental movements within a common climate justice framework. In order to understand that campaign, I first situate it historically in the UK context from where all began, and I proceed by highlighting the other campaigns that emerged in other countries and regions. The second moment is specifically dedicated to the presentation of the South African OMCJC not only because it strongly contributed to the internationalization of the campaign, but also and above all because I use it as a paradigm for analyzing the strengths and internal contradictions transversal to all the climate jobs campaigns.

1- The One Million Climate Job campaigns around the world

1.a- The UK seed

To better understand the OMCJC in general, it is important to refer to the UK context from where the seed germinated. The idea of the OMCJC originally emerged in spring 2009 when approximately 200 union activists gathered at a conference and decided to start a serious fight for green climate jobs in the UK. Following that conference, a working commission made up of members of several UK unions, NGOs and many academics was put in place to draw up detailed plans for the programs (Campaign against climate change, 2009). The campaign was inspired by workers' struggles at the Vestas wind turbine factory on the Isle of Wight, who occupied their factory when it was slated for closure in mid-2009, with the loss of approximately 600 jobs. Their aim, it should be noted, was not only to prevent jobs loss, but also and above all to think alternative jobs that will cumulatively address environmental and social justice issues.

Taking advantage of the above-mentioned background, the *Campaign against Climate Change Trade Union Group* of the *Campaign against Climate Change*, whose main goal is to push for urgent and radical actions to prevent the catastrophic destabilization of global climate, launched the OMCJC. In fact, the *Campaign against Climate Change* generally abbreviated "CCC" or "CaCC" is a UK-based grassroots environmental organization, and its trade union group was put in place by 25 climate activists who discovered their mutual belonging to different unions and decided to come together to struggle for the integration of labour concerns in CaCC agenda. The campaign proposes therefore to raise the awareness of the public on the human dimensions of climate change through mass mobilization and streets demonstrations. The CCC was founded in 2001 as a response to the rejection of the Kyoto protocol by the Bush's administration. Since its creation, there has been a growing interest manifested by the population with regards to its activities. On December 3rd 2005 for example, it organized a London rally that was attended by almost 10.000 sympathizers.²⁹ Equally, the following year on November 4th, the Campaign organized a march from the US Embassy to the iCount event

29 For further analysis, refer to http://news.bbc.co.uk/2/hi/uk news/7134060.stm Retrieved on 30/04/2017

in Trafalgar Square, where at least 25.000 people are reported to have attended. At the moment, beside the climate jobs campaign, the CCC is running other campaigns related to fracking, biofuels, aviation and environmental degradation, TTIP/CETA/TiSA and climate change, divestment, and coal.³⁰ To better understand the CCC and the underlying logics that the climate jobs campaigns inherited from it, it is important to revisit its main objectives, as determined in its mission statement. In fact, the objectives that the CCC wants to reach can be summarized in five points:

- Raise the awareness of all the social actors about the gravity and urgency of the climate change threats so that they can act against climate change
- Create a mass movement bringing together as many people as possible to support the climate fight from a grassroots perspective
- Contribute to the fight for global climate justice, by campaigning against those (corporations and countries) who are responsible for the current crisis and who are doing everything possible to delay the conception and implementation of an effective international climate treaty
- Advocate for a global climate approach that incorporate social justice principles and the fight against the exacerbation of global inequalities
- Influence the climate change decision-making process through street mobilizations and other popular outdoor activities.³¹

In order to reach the above mentioned objectives, a "wider network of academics, socialists, environmentalists, scientists, economists and trade unionists, with support from four major trade unions in the UK – the Public and Commercial Services Union-PCS (civil service), Transport Salaried Staffs Association-TSSA (rail workers), University and College Union-UCU (college workers) and the Communication Workers Union -CWU (communications)"³² (Empson, 2010) gathered to produce, publish and then disseminate

³⁰ For more details and further development, refer to: Campaign against climate change. "Mission Statement: Campaign Aims and Objectives" available at https://www.campaigncc.org/main_campaigns 31 Idem.

³² In addition to these we have to mention other unions such as the Bakers, Food and Allied Workers Union (BFAWU), the Fire Brigades Union (FBU), the National Union of Students (NUS) and Unite, the union (UNITE)

the One Million Climate Jobs Now! A report by the Campaign against Climate Change trade union group to the Communication Workers Union, Public and Commercial Services union, the Transport Salaried Staff Association and the University and College Union. Very detailed and accessible for all types of publics, that report, drawing from available scientific facts, constituted the baseline for the OMCJC that was later on deployed in the whole of UK through caravans, rallies, town cleaning activities among others. Since then, it has been adapted and implemented in several contexts, including Canada, New-York, Norway, Philippines, Mauritius, South-Africa, Portugal³³, and more recently in France (Aubé et al., 2016; Kenfack, 2017).

1.b- A brief overview of other climate jobs campaigns

> France and the "Un million d'emplois climatiques"

The French OMCJC known as "un million d'emplois climatiques" is currently the last born of the climate jobs family. It was officially launched on January 12th 2017 by a "consortium made up of trade-unions, social organizations and environmental movements, as an attempt to introduce the ecological transition in the public debate, and to present alternatives in facing the ecological transition and the social transition in a synergetic way." (Kenfack, 2017) Prior to the official launching of the campaign, the consortium³⁴ prepared a report to present their vision, describe how and in which sectors should climate jobs be created and how will those jobs be financed. The ecological transition in France will require among others:

- The creation of 250.000 support jobs labelled "ecological transition" jobs
- The creation of 100.000 "ecological transition" jobs in the public services
- The investment in ecological-transition-related private sector to create 650.000 jobs
- The instauration of a social dialogue on the antagonism between climate protection and jobs loss in fragile sectors. This should be done through a conversion, which

33 For further analysis refer to https://globalclimatejobs.wordpress.com/national-campaigns-and-contacts/ Retrieved on 08/07/2017

³⁴ The campaign is endorsed among others by Alofa Tuvalu, Alternatiba, Friends of the Earth, Attac France, Heinrich Böll Stiftung France, Collectif Roosevelt, Confédération Paysanne, Emmaüs, Fédération Syndicale Unitaire (FSU), Ligue des Droits de l'Homme, Mouvement National des Chômeurs et Précaires (MNCP), Réseau Action Climat, Union Syndicale Solidaires (Aubé et al., 2016)

must be anticipated and territorialized and through adapted trainings and skills development programs

- The improvement of the quality and social protection of just ecological transition jobs
- The launch of structural changes to adapt jobs to the ecological transition framework (Aubé et al, 2016; Kenfack, 2017)

It is important to mention that unlike the other campaigns, the French one does not use the term JT, but ecological transition. It is equally the first to clearly support State's investments in ecological-related private sector as a solution to the climate crisis. According to the previsions of the campaign, if France starts the ecological transition journey now, by 2020 1.446.000 climate jobs will be created, while 446.000 current jobs will be loss. This gives a net figure of 1.000.000 climate jobs created. This will cost approximately 104.7 Billion to the national economy. That money can be obtained through a better control of tax dodging and tax niches in favor of fossil fuels, the re-orientation of the current environmentally harmful investments, the democratization of a quantitative easing 35 labelled "ecological transition" and the better control and use of the carbon tax.

Norway and the "Bridge to the future"

Mostly known under the name *Bridge to the future* the Norway climate jobs campaign started with an inaugural conference in February 2014. The conference was attended by 350 people and 1000 more people followed the live online transmission across the country. Nevertheless, after that conference, the campaign was officially launched during the May 1st 2015 parades in Oslo, Trondheim and Bergen by the Bridge to the Future alliance. This is an alliance between Norwegian trade unions, environmental organisations, church organizations and research institutions³⁶ (Bridge to the future, 2017).

³⁵ The Quantitative easing is a monetary policy in which Central banks increase the availability of money by putting more capital at the disposal of financial institutions. By so doing they participate in decreasing the interest rate and encourage more lending and liquidity flow. In this line, the French campaign is proposing that the central bank should provide more money (in this case 60 billion Euros per year) to financial institutions to ease lending and increase liquidities, but in this case specifically for the purpose of ecological transition. As such lending the money, either by States, companies/corporations or even individuals will be condition to the investment in ecological transition projects and activities.

³⁶ The alliance comprises members such as the Norwegian Union of Municipal and General Employees (Fagforbundet), the Norwegian Civil Service Union (NTL), the Norwegian Confederation of Trade Unions

So far, the campaign has hosted two important conferences: The first in 2014 and the second in 2015. It has equally succeeded in collecting 10.000 signatures with the following key demand addressed Norwegian leaders: "Put a brake on Norwegian oil: 100.000 climate jobs now!" (Wahl and Ytterstad, 2015) The petition was presented to the government in 2015. Following the 2015 events, campaigners have mostly been focusing on sensitization, petitions and conferences throughout the country.

> Canada and the "One million climate jobs"

The Canadian campaign was launched under the initiative of the Green Economy Network [GEN]. This network is made up of trade unions, environmental movements, foundations, students' movements, faith-based movements, Indigenous movements and research institutions.³⁷ (Green Economy Network, 2017) The fundamental argument and demand of the campaign is that

By investing up to 5 percent of the annual federal budget, each year, for a five-year period - in public renewable energy developments [i.e. wind, solar, and geothermal power]; energy efficiencies through building retrofits; public transit improvements and expansion; and in higher speed rail between urban cities within urban corridors- Canada could create one million new jobs in the economy while reducing between 25 and 35 percent of our annual greenhouse gas emissions. Such an action plan could finally put Canada on track for meeting its international obligations to reduce its annual greenhouse gas emissions while, at the same time, triggering the shift or transition to a new economy- one that is more socially just and environmentally sustainable. (Green Economy Network, 2015)

This movement that requests for the creation of climate jobs and the instauration of a new economy which is not fossil fuel dependent in Canada, began in the countdown to

in Oslo (LO i Oslo), Friends of the Earth Norway (Naturvernforbundet), Future in our hands(Framtiden i våre hender), Greenpeace Norway, the Christian Network for Environment and Justice(Skaperverk og bærekraft), Concerned Scientists Norway, Parat, Young Friends of the Earth Norway/Nature and Youth (Natur og Ungdom), the Grandparents' Climate Campaign (Besteforeldrenes klimaaksjon), and the Campaign for the Welfare State (For Velferdsstaten).

37 Institution that form part of the network are the Amalgamated Transit Union Canada, the Canadian Federation of Students, the Canadian Labour Congress, the Canadian Union of Postal Workers, the Canadian Union of Public Employees, the Canadian Youth Climate Coalition, the Climate Action Network, the Columbia Institute, the Council of Canadians, the David Suzuki Foundation, Greenpeace, the Green Communities Canada, the Canadian Ecumenical Justice Initiatives, the International Association of Machinists & Aerospace Workers, the National Union of Public and General Employees, the Ontario Federation of Labour, the Pembina Institute, the Polaris Institute, the Public Service Alliance of Canada, the Service Employees International Union, Sierra Club of Canada, the Toronto and York Region Labour Council, Unifor and the United Steel Workers.

Copenhagen COP 15 in 2009 (Clarke, 2015). The activities of the movements are spread all over the country, and their demands for climate jobs are addressed both to the federal and provincial governments.

> New York State and the "Climate work for all"

It is important to mention that the New York State climate jobs campaign did not spring from nothing. In fact, three main events led to the almost generalized consciousness of a possible climate catastrophe: The hurricane Sandy slammed New York on October 29th 2012, left many people houseless and deprived from their resources and goods. Secondly, the People's Climate March in September 2014 brought together more than 300.000 into the streets of New York, and that gave a new strength to local activist, Indigenous and environmental groups. Thirdly, in the course of the same year a coalition of grassroots environmental movements, through their mobilizations and lobbying, forced the New York State Governor to ban fracking (Mijin Cha, 2015). Taking advantage of that favourable context a coalition of over 40 community, labor, environmental justice, faith and research institutions among others came together to launch the campaign and demand the conception and implementation of economic development strategies to drastically reduce GHG emissions, confront the climate crisis, and proceed to the creation of climate jobs for all. This was done under the initiative and coordination of the Worker Institute at Cornell. The climate jobs program for New York State includes

The establishment of a "Just Transition" Task Force could ensure a fair and equitable transition to a new, clean energy economy. Support for impacted workers and communities can include wage and health benefit replacements, "bridge to retirement" funding for workers near retirement age, and re-training and education support for workers who would like to shift to other sectors. This Task Force can also examine the job and training quality standards that are necessary to ensure jobs in the new, low-carbon economy are good, high-road jobs that help address growing inequality, rather than exacerbate it. These include prevailing wage, State -approved apprenticeship job training standards, project labor agreements, best value contracting, and targeted local hire programs. (Mijin Cha and Skinner, 2016:1)

The campaign is currently implemented in the New York State, with the aim not only of pushing for JT agenda and the creation of climate jobs in the State, but also and above all with the hope that by acting in that direction, the New York State will inspire other States of the US to do the same.

> Philippines and climate jobs campaign

The Philippines climate jobs campaign was launched in 2015 by the Center of United and Progressive Workers, locally known as Sentro ng mga Nagkakaisa at Progresibong Manggagawa (Sentro). Sentro is a national Pilippino labor institution, made up of trade unions and other workers' organizations in the private, public, informal and migrant sectors. It is a member of the country's largest labour coalition called Nagkaisa. Nagkaisa already had in its agenda the demands for a JT which promotes social justice and employment, and requires an active government intervention. Its JT strategy also included demands for all stakeholders, including business, to proportionately take their responsibilities in the fight against climate change. Sentro, as member of Nagkaisa, took advantage of that favourable context to convene the climate jobs campaign. According to Sentro "the Philippines, for instance, has not explicitly declared a timeline to when fossilfueled power plants are finally phased out so that the transition is clearly plotted in favour of renewable energy and the creation of climate jobs." (Sentro, 2015) According to the coalition, thousands of climate jobs can be created if the State invests more on renewable energies, disaster response mechanisms, building of climate resilient communities through resettlement in climate resistant buildings, and less polluting transportation systems. To fund the transition, the campaign counts on the climate finances that will come from rich country as compensation for their historical responsibility towards developing nations.

> Mauritius and the "Travay pou klima dan Moris"

The climate jobs campaign of Mauritius also known as *Travay pou Klima dan Moris* was launched in 2016, at the initiative of the Centre for Alternative Research and Studies that organized the first workshop for trade unionists on climate jobs. The workshop was to study the vulnerability of the labour sector with regards to climate chance, and to encourage for the creation of thousands of jobs in environmental protection related sectors. Nevertheless, even though the initiators of the Mauritius campaign encourage environmental protection related jobs in general, they do not lose their focus on the climate jobs, those that contribute directly to the reduction of GHG emissions. As such, in the context of JT to a low carbon economy, the Mauritius campaign demands that new jobs should be created in the public sector, with good working conditions and good wages. They should be sustainable jobs, where profit is not the first objective. They should not be jobs in which workers make the greatest sacrifice, but jobs in which they find satisfaction

and fulfilment. Climate jobs to be created should be related to the production of materials used in the low carbon context such as solar panels and wind turbines, the creation and maintenance of renewable energy sources, the development of clean and free public transportation, the treatment and distribution of water, the amelioration of air condition systems in public buildings and private houses, and the development/management of a good disaster response system. All this should be done by the State. It is important to mention that this campaign puts a special focus on the public transportation system.³⁸

From the presentation of those various campaigns we can draw some conclusions: 1) Up to this moment, practically all the climate jobs campaigns have been launched under the initiative of social movements, except that of South Africa (where the initiative came from a well-established advocacy institution), Mauritius and New York (where the initiative came from research institutions). Even in the UK, the idea emerged within a grassroots movement and not really from trade unions. Nevertheless, everywhere trade unions immediately took the initiative upon them and became leading actors of the campaign (except in the Portuguese case as I will demonstrate in part III). 2) Even though, climate jobs activists often talk of global climate jobs campaign, it is nevertheless important to mention that all the campaigns (for the moment) are still national, or Statespecific (like the New York campaign). They have a common global online platform to share information and update each other on their various activities, but no coordination mechanism at the global/international level. They all advocate a JT to a low carbon economy to be led by States, and stress that climate jobs should be public service jobs, apart from the French campaign that defend that the majority of climate jobs have to be created by the private sector. 3) The climate jobs campaign presented, apart from the Mauritius campaign, stress on a clear number of jobs to be created, even though the figures differ. All equally base their figures of research done, either by campaigner themselves or with the assistance of external experts. The French campaign, in its analytical approach, goes further than the other campaigns and highlights the number of jobs that will equally be loss.

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³⁸ For further analysis, refer to Travay Pou Klima. 2016. "Travay Pou Klima: Workshop on Alternative Transport System and Climate Change." 09 August 2016. Available at https://globalclimatejobs.wordpress.com/category/uncategorized/

Nonetheless, to better understand the OMCJC from a critical perspective, I will focus on the analysis of the South African campaign. The choice of this specific campaign is motivated by two reasons: 1) The South African campaign, through its articulation of labour and country-specific social concerns (the sectors considered reflect the concerns of South Africans) can be appropriately used to showcase the SMU. 2) Taking into consideration its level of implementation and advancement, and the contradictory positions assumed by its two leading unions (NUMSA and COSATU respectively defending system change and eco-modernization) the South African campaign appears to be a paradigmatic case that can be used to better analyze the strengths and contradictions of the OMCJCs.

2- The OMCJC between successes and contradictions: The South African paradigm

The South African OMCJC was initiated as part of the activities of environmental and climate defense movement fighting again the financialization of nature and for the transition to low carbon economy. Its official launching took place during the 17th conference of the parties to the UNFCCC held in Durban in 2011 with two important events: The popular mobilization and the inaugural conference. The popular mobilizations part was done on December 3rd, as part of the Global Day of Action 2011. On that day, about 10.000 people gathered in Durban to demand climate justice and strong actions against climate change. The march followed a route passing through the site of the UN negotiations, and converged on the way with faith community members. it was equally attended by people from many different organizations, including the Democratic Left Front, Rural Women's Assembly, trade unions and other labour organizations, small farmers and the unemployed among others. In short, it mobilized thousands of South Africans around credible and well-researched proposals for creating one million jobs that reduce country's GHG emissions. The campaign also aimed at raising the awareness of many ordinary citizens on the threat of climate change, in order to forge a spirit of climate civil disobedience, and therefore force the government to respond to its JT proposals.³⁹

³⁹ http://www.aidc.org.za/about-us retrieved on 26-12-2016

As far as the inaugural conference is concerned, on December 4th more than 400 people attended a conference on climate jobs that was held still in Durban, as the first step towards building an international movement for climate jobs. This conference marked the official beginning of the campaign, supported among others by COSATU. 40 All this was done under the leadership of the Alternative Information Development Centre (AIDC) and included key components of labour movements, social movements, religious movements and other formations of civil society that realized the necessity and possibility of simultaneously tackling the economic and ecological crises, especially jobs and climate change (One Million Climate Job Campaign, 2011a). Following it successful launching during Cop 17, the campaign took a more permanent form and has so far been carrying out several training activities to enhanced the capacities of trade unions such as COSATU, ENATU, NUMSA as well as some local organisations. Beside those activities with organizations, campaigners have been working hard to collect signatures, mobilize and educate communities about the impacts of climate change, the unemployment crisis and the alternative solutions proposed by the OMCJC. Also, campaigners collected more than 100.000 signatures from women, youth, the unemployed and workers in communities and workplaces across the country. The signatures collection helped activists not only to build local structures of the campaign by engaging at the local level with populations, but also to assess the priorities and expectations of populations in terms of access to essential services, in order to integrate them in their fights (Global Climate Jobs, 2015). The signatures were handed over to the Parliament as voices of South Africans during the 2015 national climate jobs march that took place in Cape Town (One Million Climate Jobs Campaign, 2015).

South Africa, just like most countries of the world in general and the global South in particular, is facing an economic crisis leading to a huge unemployment. At the same time the country is confronted to the rise of GHG emissions that it has to reduce as part of its efforts to fight global warming, under an economy dominated by the use of fossil fuels (Winkler and Marquand, 2009; Cock, 2012). The campaign is premised on the belief that we can deal with both crises at the same time – by creating millions of climate jobs that help reduce the amount of GHG the country emits, and that build its capacity to adapt to

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^{40 &}lt;a href="http://www.globalclimatecampaign.org/index.php?cmd=Main.ShowCountry&id=46&language=fr">http://www.globalclimatecampaign.org/index.php?cmd=Main.ShowCountry&id=46&language=fr
Retrieved on 01-03-2016

the negative impacts of climate change.⁴¹ The campaign then came as an attempt to help reaching the goals in fighting rising inequalities and accomplishing the promise South Africa made in 2009 to reduce its GHG emissions by 34 percent by 2020 and 42 percent by 2050, following the business as usual scenario, despite its current intensive fossil fuel economy with 90% centered on the production of coal (Cock, 2014) for consumption and exportation purposes. In the same line, Cock summarizes COSATU's official position with regards to the need of JT in the following points:

- Capitalist accumulation has been the underlying cause of excessive greenhouse gas emissions and therefore global warming and climate change
- A new low carbon development path is needed which addresses the need for decent jobs and the elimination of unemployment
- Food security must be urgently addressed
- All South Africans have the right to clean, safe and affordable energy
- We reject market mechanisms to reduce carbon emissions
- Developed countries must pay their climate debt and the Green Climate Fund must be accountable
- A Just Transition towards a low carbon and climate resilient society is required. (Cock, 2011:238)

The OMCJC of South Africa is therefore an alliance of labour, social movements and other civil society organisations that are mobilizing for real solutions to the threat of climate change. Cutting the pollution of those gases that lead to climate change is urgent and involves doing many things; overcoming unemployment and giving decent work to South African people is just as urgent. By placing the interests of workers and the poor at the forefront of strategies to combat climate change, we can simultaneously halt climate change and address the jobs bloodbath. In this line, campaigners are mobilizing in order to force the government to create a million climate jobs now. Their demand is based on well-researched solutions on how South Africa can immediately begin a JT to a low carbon economy. Such JT project

Works from the premise that a just transition to a low carbon economy provides opportunities both to reduce global greenhouse gas emissions and enhance the quality of life of South Africans through reducing localized pollution and providing decent jobs and skills development opportunities. Such a transition provides extensive opportunities to create more than a million jobs - if driven by the State and its agencies. 42

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⁴¹ For further analysis, refer to http://www.aidc.org.za/media-room/press-releases/40-one-milllion-climate-jobs-press-statement consulted on 25/01/2016

⁴² For further analysis, refer to http://links.org.au/node/2676 consulted on 25/01/2016

Therefore, unless we bring JT forward as an effective political issue, it will never form a central part of the environmental agenda; the environmental projects will go forward, but the transition aspects of the program might drop off the agenda and get lost in the delivery, if labour, climate justice and other social movements do not continue fighting for it (Canadian Labour Congress, 2000).

2.a- Successes of the OMCJC

Actors of the South African campaign: Unifying diversity for a common purpose

One of the important points to be raised is that the campaign started by clarifying and taking an official position on what it calls climate jobs, and the sectors in which they should be created. It equally distantiated itself from the green jobs terminology. By so doing, campaigners wanted to have a common ground while initiating their struggles, giving their diverse backgrounds and interests. As such,

By climate jobs we do not mean "green jobs". Green jobs can include a very wide variety of work related to conservation, greening the environment, and reducing pollution. Climate jobs are those that specifically contribute to reducing the emission of greenhouse gasses that lead to global warming. Climate jobs would involve: The building of solar and wind power stations; jobs related to the building of a public transport network that would take cars and trucks off the road; renovating and insulating buildings; and transforming industrial agriculture. Significant jobs would be created in the related areas of research, education and training, to ensure the country has the skills to undertake the transition to a low carbon economy. (One million climate job campaign, 2011:9)

Another important aspect concerns the preparation and training of activists and other sympathizers on matters they are defending. Trainings, conferences and divulgation materials used for this purpose therefore had the aim of

Enhancing their capacity to engage with the issues of climate change and strategies for creating climate jobs in the designated sectors. Tools of political economy will also have to be enhanced in order to give activists the means to convey the causes of mass unemployment and to situate climate change in the broader ecological crisis. ⁴³

For divulgation purposes, campaigners relied on medias, direct contacts, networking and public posts along the streets to convey their messages, and build a strong network of climate justice activists in the country. By the time the campaign was launched, the group was already constituted of 40 entities that went beyond their multiple and at

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⁴³ For further analysis refer to http://aidc.org.za/about-us/our-vision/ Consulted on 28/04/2017

times divergent interests to build a network that could more efficiently fight for a transition to a low carbon economy and for climate jobs in South Africa.⁴⁴

44 Those participating organizations are:

• Foundations, social and faith-based groups

The Abahlahi baseMjondolo

The Alternative Information and Development Centre

The Co-oporative and Policy Alternative Centre

The Democratic Left Front

The Farmer Support Group UKZN

The New Women's Movement

The Progressive Youth Movement

The Rosa Luxemburg Foundation

The Rural People's Movement

The Trust for Community Outreach and Education

The Umphilo waManzi

The Youth Agricultural Ambassadors

The Southern African Faith Communities Environmental Initiative

• Environmental defense organisations

The 350.org

The Africa Centre for Biodiversity

The Earthlife Africa Cape Town

The Earthlife Africa Johannesburg

The Environmental Monitoring Group

The Geasphere

The GroundWork

The Institute for Zero Waste

The International Alliance on Natural Resources in Africa

The Oxfam Australia

The South Durban Community Environmental Alliance

The WWF

• Labour and trade-unions movements

The Congress of South African Trade Unions [COSATU]

The Food and Allied Workers Union

The National Council of Trade Unions

The National Union of Metalworkers of South Africa

The National Union of Mineworkers

The Public and Allied Workers Union of South Africa

In short, we can say that one of the greatest achievements of the South African campaign is its ability to mobilize actors across several sectors under a single climate justice struggle. Even though the initiative did not come from trade unions, they nevertheless very early endorsed it, and their demands were based on previously carried out research that served both as background and backup for the campaign. Nevertheless, it is worth mentioning that the country's socio-political situation played a key role in facilitating the come together among originally opposed groups, since it was dominated by

The decision of COSATU's biggest affiliate the National Union of Metalworkers of South Africa (NUMSA) to break-away from the ruling Tripartite Alliance and establish a workers' party. [...] The emergence of the militant mineworkers' union, the Association of Mineworkers and Construction Union (AMCU) and the rise of the Economic Freedom Fighters (EFF) as a mass anti-capitalist youth formation that has over 60 representatives in national and provincial parties as well as several other progressive grassroots formations that challenge government's neoliberal policies. 45

Taking advantage of this favourable socio-political context dominated by counterhegemonic feelings, the AIDC built a national coalition to prepare and launch this campaign articulating together social, labour and environmental concerns.

> Relation jobs-protection of the environment: From opposition to complementarity

In the South African context, the labour movement has historically neglected environmental issues. This is largely because of the widespread understanding that environmental protection threatened jobs (Cock, 2007), and that workers need to choose between keeping their jobs and the protection of the environment, even though such jobs blackmail has been challenged by labour organizations in other contexts, as Barca (2012)

The South African Municipal Workers' Union

The South African Transport and Allied Workers' Union

Universities and research institutions

The Civil Society Research and Support Collective

The University of Glasgow

The University of Cape Town

University of KwaZulu-Natal: Farmer Support Group

The University of Stellenbosch: Sustainability Institute

The University of Witwatersrand: School of Economics and Business Sciences

The University of Witwatersrand: Society, Work and Development (One Million Climate Jobs Campaign, 2011)

45 For further analysis, refer to http://aidc.org.za/about-us/ Retrieved on 28/04/2017

demonstrates based on the working-class environmentalism in Italy, USA and Brazil. In fact, the transition to a low carbon economy has massive implications for labour; that is why the campaign presents five steps towards creating and securing one million climate jobs. These include

[To] 1) produce electricity from wind and solar power; 2) invest in social infrastructure such as public transport, housing and publicly available waterworks; 3) utilise agro-ecology which is labour intensive, low in carbon emissions and respectful of traditional African practices by protecting biodiversity; 4) protect South Africa's natural resources from outside influence and corruption to meet the basic needs of all people; and 5) provide basic services such as water, electricity and sanitation to redress the legacies of apartheid and build on the resilience of South Africans to withstand the effects of climate change.⁴⁶

The OMCJC of South Africa is therefore based on the shared principle that the protection of the environment does not automatically threaten jobs as it has historically been believed. On the contrary, when faced with the double challenge of joblessness and climate crisis, as the campaign organizers claim, there are no other options than capitalizing on JTto a low carbon economy by creating clean, decent and sustainable jobs. All the stakeholders have the responsibility of making such change happen without delay. To demonstrate how to render this combination between jobs creation and environmental protection possible, the campaign carried a multi-levels and multi-sectorial research which is presented in a very synthetic and summarized way in table 6 below. The quantitative aspects of the research demonstrates that, more than mere discursive protests against the current social order, the campaign presents a political alternative that, if followed, can lead to the achievement of palpable and measurable results in term of jobs creation, with great impact on ecosystems protection, landscapes restoration and climate change mitigation and adaptation.

Table 6: Quantitative multi-sectorial climate jobs creation in South Africa

INITIATIVE	JOB CREATION
Renewable energy	
South Africa supplying half its electricity from renewable energy within ten years; 50% of households having installed solar water heating systems by 2020; construction of 150 000 residential digesters	Over 150 000
Ecological restoration	

⁴⁶ Austin-Evelyn K. "Civil Society at the UN Climate Change Conference: African Activism at COP17". Available at http://www.climate-justice-now.org/civil-society-at-the-un-climate-change-conference-african-activism-at-cop17/ Retrieved on 01/03/2015

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Public works programmes such as working for Water, Landscape, Working for Coast. Working for Wetlands. Working for Fire, and Working for Waste	Up to 400 000
Construction and building industry	
Retrofitting regulation; inner city; municipal housing unit	Up to 70 000
Health	
Employment of community caregivers	Up to 1 300 000
	(the majority part-time)
Rainwater harvesting (RWH)	
Introducing RWH to 10% of the South African population (jobs in design,	65 000
Building, installation, maintenance and education; link with small-scale agriculture, etc.)	
Transport	
Increasing use of public transport: expansion of rail general freight with 18%; promotion of a South African owned and controlled shipping industry, etc.	460 000
Manufacturing (in relation to RE)	
Manufacturing of climate mitigation and adaptation products for domestic households; climate adaptation products in water reaching 50% of households;	38 000
sales, maintenance and transport of the above products	
Eco-housing and sanitation	
Construction of 200 000 RDP houses a year using eco-housing methods; and	8 700
recycling of recovered materials for floors	
Waste	
Zero waste economy	Over 400 000
Tourism	
Half of tourist lodges in SA sourcing their food through community agricultural projects; energy and water efficiency retro-fitting in hostels; waste management	65 000
initiatives in the accommodation sector; and investment in programmes such as EPWP and projects undertaken by open Africa	
22 and projects undertailed by open runou	

Source: (One Million Climate Jobs Campaign, 2011:8)⁴⁷

Even though the other climate jobs campaigns made research and analyses to support their demands, the particularity of the South African campaign lies in the fact its research followed both a participatory approach and a multi-sectorial perspective. In this

⁴⁷ According to the same source, the numbers indicated on this "table exclude all job estimates from the research papers, which are formulated as 'significant number of jobs', 'jobs per million rand invested', 'jobs per MW installed' and the like. Only when the papers had explicit numbers of job creation were they included. Some of the initiatives are overlapping, but it has been attempted not to do any double-counting of job estimates. For simplicity, all job numbers have been rounded off to whole hundreds."

regard, the research involved relevant trade unions, informal sectors, academics, activists and social movements among others. This participatory approach was used to make sure the daily concerns of South African populations are properly captured and considered. Four immediate research objectives were set for each research group and research area. The research objectives were focused on the maximization of job creation, the minimization of carbon emissions, the identification of primary actors involved in achieving the first two objectives and finally the indication of how the first two objectives are to be met. On the other side, the ten research areas considered by the campaign were: Agriculture and food (including land redistribution issues), construction, energy production and distribution, financing climate jobs, manufacturing, mining, tourism and hospitality, transports, waste management, water and sanitation (Briand, 2011). Through this, the campaign proved that in any sector, there are potentials for the articulation of jobs creation (that can ameliorate the daily life of populations) with the protection of the environment. Nevertheless, despite these successes, the campaign is faced with some internal contradictions and challenges. The following section will focus on the two most important of those internal challenges.

2.b- Contradictions and internal conflicts of the OMCJC

> Climate jobs and JT: Between minimalism and radicalism

The first important contradiction of the OMCJC is the divergent understandings of the level or the intensity of change required in the context of JT to a low carbon economy. In fact, the OMCJC is dominated by two ideals of JT: the minimalist ideal (in line with eco-modernization) that supports that the transition to a low carbon economy should be done within the current capitalist system, and the radical ideal (in line with system changers) that argues that no transition is possible within the current system, and demands that JT should done within the context of a completely post-capitalist system.

According to the Congress of South African Trade Unions (COSATU), one of the biggest and most influential trade union confederation in South Africa,

The evidence suggests that the transition to a low-carbon economy will potentially create more jobs than it will lose. But we have to campaign for protection and support for workers whose jobs or livelihoods might be threatened by the transition. If we do not do that, then these workers will resist the transition. We also have to ensure that the development of new green industries

does not become an excuse for lowering wages and social benefits. New environmentally-friendly jobs provide an opportunity to redress many of the gender imbalances in employment and skills. The combination of these interventions is what we mean by a just transition. (COSATU, 2011)

For the confederation that endorsed the South African OMCJC right from the beginning, JT implies investment flows towards environmentally clean and decent jobs, the extension of social protection measures to all workers and, better policies founded on strong research on the impact of climate change on the employment and worker's livelihoods. It also implies workers requalification to make sure they are in line with the transition demands and that worker' rights are respected, irrespective of gender or race. Based on that, "at the international level, COSATU has demanded more-radical action against climate change, rejected market mechanisms to deal with climate change and called for more-active State involvement to ramp up public investment, defend human rights to energy and clean water." (Cock and Wainwright, 2015:9) Nevertheless, this official vision is not shared by all the unions that form part of COSATU. There are basically two opposed visions of JT within the ranks of the confederation and the campaign: What can rightly be called the minimalist and the transformative positions (Cock, 2011; Bennie, 2013; Cock and Wainwright, 2015; Satgar, 2015). The minimalist position "emphasises limited change involving green jobs, social protection, retraining and consultation. Its emphasis is defensive, focusing on protecting the interest of those workers most directly affected [...] by a move from fossil fuel." (Cock, 2011:238; Cock and Wainwright, 2015:9) This position is led by the National Union of Mineworkers (NUM) which as part of its policies accepts and even defends technological solutions to climate change such as carbon capture and geo-engineering. The transformative position advocates for a radical change of system and an "alternative growth path and a conception of labour politics that challenges the overriding imperative of increasing production and maximizing consumption." (Cock and Wainwright, 2015:9) Led by the National Union of Metalworkers of South Africa (NUMSA), this position claims that there is no solution within the current neo-liberal model. Satgar gives an account of this position by summarizing two report that were committed by NUMSA in 2012, namely the report entitled Climate Change and Class *Struggle* that

Explicitly commits NUMSA to finding climate justice solutions from below as part of struggling for a deep transition to a low-carbon economy based on renewable energy sources. The resolution recognises that the State, in the light of

the failings of the COP process, is not capable of delivering serious responses to climate change mitigation and adaptation. (Satgar, 2015:272)

And the second report Building a Socially Owned Renewable Energy Sector in South Africa which defends that

Central to the political economy of a just transition is a political commitment to build a socially owned renewable energy sector which is made up of different forms of socialised property-cooperatives, municipal ownership and socialised parastatals. Such a sector should also ensure the promotion of locally manufactured renewable energy technologies. (Idem.)

The two reports summarized by Satgar came from NUMSA 9th national congress held in June 2012, and express the official position of the union as far as the level of transformation needed in the context of JT is concerned. Dinga Skwebu, NUMSA's education officer better explains the union's position in the following terms

The talk about a Just Transition is often shallow because it does not talk about who will own the new energy sources. They must not be sites of capital accumulation. The same culprits who destroyed the environment are now the proponents of renewable energy. We prefer to talk about a managed transition. We are inspired by the slogan, "Socialism is the future, build it now". This is what informs our transformative notion of a just transition. The insistence on public ownership and democratic control is a building block for socialism. (Dinga Skwebu, quoted by Corck and Wainwright, 2015:10)

This contrasted understanding of the level of transformation needed for JT is deeply rooted among unions in South Africa, and they consequently transpose it in the climate jobs campaign since most of those divided members of COSATU are equally members of the campaign. Two facts can testify such division; the first concerns the launching by NUMSA of a parallel climate justice campaign based on its understanding of JT built on participatory democracy (Satgar, 2015). The second fact is still reported by Satgar:

NUMSA was expelled from COSATU in November 2014, in the main because of its opposition to the neo-liberal positions of the ANC government, despite the dominant faction in COSATU claiming it was expelled due to poaching members from other sectors [and to account more of the situation, this led to] deep divisions cutting across all unions in the federation and with eight affiliates standing with NUMSA. (Ibid:279)

Such difficulty faced by unions members of the OMCJC to agree on the level of transformation needed in the context of JT is also a challenge for the internal cohesion of the campaign. Besides that, another contradiction is related States' role in the JT context.

> State's role in JT: Needing the system to reform the system

The South African OMCJC attempts to link "the transition to a low carbon economy to the erasure of unemployment, a historical and particularly dramatic plague of

the South African workforce." (Leonardi, 2012:305) In fact, the apartheid system created and maintained a situation of economic, political, social and racial inequalities, which are still visible and very much rooted in the current South African society through the low employment and low wages among black communities. On the other side, during that period the country got engaged in the path of fossil fuel intensive development, mostly sustained by mining activities. That is what basically justifies the need of rethinking the development path through new lenses which are less carbon intensive and more climatefriendly. To invert this double curve of social/labour injustices and climate change the campaign proposes the creation of a million climate jobs to be done by the State. In other words, the South African government should create a million jobs directly in the public sector, or indirectly in the other related sectors. In this perspective, "just as the green economists, OMCJ [...] activists recognise the climate crisis as a terrain for development – as a job creator rather than as a job killer – but do so by privileging the working classes' interests instead of the financial sector's needs." (Leonardi, 2012:308) As Leonardi continues, even if campaigners do not exclude completely the option of including the private sector in the transition, they nevertheless discourage the abandonment of the transition in the hands of capital and of business. In fact, if the transition is left in the hands of those two categories of actors, they will continue to focus on profits at the expense of social justice and the environment. For the campaigners, "the institutional pivot of the transition is individuated in the (positive) power of the State as opposed to the (negative) influence of the market." (Leonardi 2012:312) This reliance on the States to lead the transition to a low carbon economy is quite contradictory for three fundamental reasons:

In the first place, campaigners base their belief in the capacity of States in leading the transition on a somehow naïve understanding of States as neutral and completely independent entities capable of neutral and independent actions. In fact, they do not consider the international commercial treatise and trade agreements that States sign and that condition their internal economic behaviours and policies (Barca, 2015). They tend to forget that the conception of economic policies is always a negotiated act among economic and financial actors, States' agents, private sector entrepreneurs, as well as national and international financial institutions with a well-known neoliberal agenda such as the World Bank and the International Monetary Fund. The structural adjustment programs and policies imposed by Breton Woods institutions with the support of regional financial

institutions to some countries of the global South and more recently to some countries of southern Europe (commonly known as troika), as a conditionality to continue receiving financial assistance, is quite illustrative of this limited power of States in putting in place economic and social policies. In fact, in those situations, State and government officials were very aware of the social consequences of the programs, but were forced to accept them as only way forward. This contributed to the destruction of social protection programs and even to the fragilization of State's apparatuses in some countries of the global South.

The second reason why I argue that relying on the State to secure JT is contradictory is that campaigners seem to forget the current dominant business orientation of the global climate regime. This regime centered on the commodification of nature and the carbon trading mechanisms as I have demonstrated in the first part of this thesis, shows the impressive power of the current neoliberal system in phagocytizing and absorbing alternative voices. As such, within the current global climate regime where "States and markets are deeply entangled in the cogency of the carbon trading dogma" (Leonardi 2012:312), it seems impossible to find an inner solution for JT to a low carbon economy, or better said a transition that will not be a ground for new forms of capital accumulation and exploitation of workers. The insistence on further marketization as a solution to global warming by the Paris agreements, despite evidences of the failure of the Kyoto Protocol (that instituted the global market-based mechanisms) in delivering results in terms of global emissions reduction, shows that it is not possible to count on an element of the current neoliberal system (the State) to reform the system (neoliberal capitalism).

The third element of that contradiction is deeply rooted in the recent history of South Africa itself. In fact, with the end of apartheid and the 1994 access to power of ANC led by Nelson Mandela, a policy was put in place to fight social, labour and economic exclusion to which Black South Africans were subjected throughout the existence of the apartheid regime. Such political vision was to be applied through the Black Economic Empowerment (BEE), launched in 1994 and then revisited several times during its implementation phase. According to the rationale and vision of the government, the BEE was seen as

An integrated and coherent socio-economic process. It is located within the context of the country's national transformation programme, namely the RDP

[Reconstruction and Development Programme]. It is aimed at redressing the imbalances of the past by seeking to substantially and equitably transfer and confer the ownership, management and control of South Africa's financial and economic resources to the majority of its citizens. It seeks to ensure broader and meaningful participation in the economy by black people to achieve sustainable development and prosperity (Black Economic Empowerment Commission, 2001: 2).

Unfortunately this plan, initially aimed at establishing labour and social justice, ended up being a simple emancipation instrument for a limited and tiny black elite who were rapidly coopted into the existing white, capitalist class and power structures (Leonardi, 2012; Bowle, 2012). Understanding the failure of that instrument helps evaluate the level of contradiction of climate jobs campaigners who, just a few decades after the failure by the State in implementing such an important national project that aimed at fighting historical labour, environmental, social injustices and inequalities, still believe that the transition project should be put into the hands of the same State, under the same neo-liberal capitalist system.

In short we can say that, in the age of global warming the OMCJC comes as a strategy that brings together labour, environmental and other social movements under the same climate justice struggle framework. As I have demonstrated, based on the South African case, this campaign shows in practical terms how the jobs versus environmental protection conflict can be overcome. Nevertheless, the campaign is also subjected to internal contradictions and different conceptualizations such as the conflictual understanding of the very concept of JT it defends and the level of transition required and, on the other hand, the fact of relying on an element of the current neoliberal system to defy and fight the system.

PART III

PORTUGAL AND POST-PARIS CLIMATE JUSTICE ACTIVISM: THE "JOBS FOR CLIMATE" CAMPAIGN

On May 1st 2016, a group of Portuguese-based activists, with the support of some trade unions and labor movements, launched a national climate jobs campaign. Such campaign emerged in close connection with the rise of global climate justice activism, but immediately presented itself as an original struggle situated within a specific national context with its particularities. If this campaign cannot be isolated from the global context and from other climate jobs campaigns, it is nevertheless important to mention that the specificity of the Portuguese situation accounts for its uniqueness, and calls for a detailed and exclusively dedicated analysis. This last part of the thesis will be devoted to the analysis of this specificity. My study, deriving from direct observation of the preparation and deployment of the Portuguese climate jobs campaign, will be centered around the following research questions: How is a climate jobs campaign built on the ground? How are climate justice and JT being articulated (climate jobs) in Portugal? What are the opportunities, constraints and obstacles faced by the Portuguese campaign? How are those challenges being addressed by relevant social actors? In fact, the Portuguese campaign was supported and launched by three categories of actors, that I will present in detail in chapter two of this section, namely: 1) climate justice movements such as Climáximo (initiator of the campaign in Portugal) in Lisbon and the Colectivo clima in Porto; 2) Trade unions such as, the General Confederation of Portuguese Workers (CGTP-IN); 3) Labour movements such as the Association for the fight against precarious work (Precários Inflexíveis); and 4) environmental NGOs like the national Environmental Action and Intervention Group (GAIA).

In order to provide answers to the above-mentioned questions, I will start by presenting the national context that favored the emergence of such campaign. After that, I will focus on the actors, the preparation and the official launching of the campaign in the second chapter. The third chapter will focus on the lessons we can learn from the campaign, as well as the challenges that campaigners need to address and what is already being done to solve those shortcomings.

But before that, I will dedicate the first chapter to the description of the methodological tool and techniques that I mobilized in collecting the empirical materials analyzed in the following chapters.

CHAPTER ONE

METHODOLOGICAL CONSIDERATIONS

This research uses a qualitative approach based on the extended case method and techniques such as semi-structured interviews with key actors of the campaign, direct observation and ethnographic notes and the retrieval of scientific/grey literature.

1- The extended case method

The social sciences research method known as extended case method was initially developed by anthropologists Max Gluckman and Jaap van Velsen in the late 1950s and early 1960s (International Encyclopedia of the Social Sciences, 2008). As conceived by Gluckman (1961), this method gives less importance to the analysis of structural regularities and stresses more on the detailed analysis of social processes through which the strategies and choices of individuals and groups reveal the context of everyday life. On its own side, Van Velsen (1967) suggests that extending case studies over a wider geographical area can help researchers in clarifying the problem, and better defining the appropriate unit of study. As such, taking into account the object of this research, I can say that it is by analyzing the global climate regime that the need to study local and national reactions arises. In other words, we are in the presence of a bidirectional relationship. In such relationship, the global provides the context within which we can grasp the local; in turn, the local illuminates with empirical richness those abstractions which are necessary to establish a category as 'global'.

The extended case method is fundamentally built upon the direct involvement of researchers in the milieu, life and activities of their research object. As such, researchers do not approach the object of their investigation from an outside, but from an inside position; participant-observers is at the same time subjects and part of the object of their analysis, and their personal involvement during extended periods of time gives them the opportunity to better master their research object and be able to scale up the results of their

investigation. As Burawoy (1998:1) clearly puts it: "The extended case method deploys participant observation to locate everyday life in its extra-local and historical context, emulates a reflexive model of science that takes as its premise the intersubjectivity of scientist and subject of study." In that line the study of the climate justice activism in general and of the Portuguese campaign in particular cannot be separated from the global context dominated by global warming, widespread climate justice activism and specific campaigns such as those of UK and South Africa. In order for this approach to be fruitfully applied, there are three basic principles to be respected. In the course of my fieldwork, but always with a focus on the interaction between CJMs (Climáximo) and unions (specifically CGTP) with regards to global warming issues and most notably the climate jobs campaign of Portugal, I applied the key dimensions of the extended case method, following the below description.

• Full Participation rather than simple observation

One of the key dimensions of the extended case method is concerned with the identity of the researcher. In this context, researchers go beyond being simple observers reading the subjects and their actions from a distance or from distant and neutral positions, and become participants and actors along with those they are studying. According to Cock

The extended case method essentially involves a dialogue between researchers and those they do research on that is respectful, sensitive and reflexive. [...] Instead of university intellectuals imposing their understanding on people, they must be willing to extend their experiences into the lives of those they research. But this is not enough. They must be willing to spend time in homes, mines and factories, for extended periods of time. (Cock, 2010:297)

Obviously, the direct involvement of researchers with the subjects of their research raises the question of objectivity, as participant-observation can bring insights through proximity but can lead to distortions of the reality. The personality, ideologies and individual views of researchers guide their observation and influence the outcomes. While conceding with this critique, it is nevertheless important to point out that science is never about the totality of truth concerning the studied object; rather, it is about partial truth viewed from a specific angle, by a specific researcher (Newton and French, 2003); just as history is always an historiography, the outcomes of the analysis of any social phenomenon is always the result of a personal design, an individual contribution of the social scientist to the broader field of knowledge. That is why, instead of rejecting this method, "the reflexive perspective embraces participation as intervention precisely because it distorts

and disturbs. A social order reveals itself in the way it responds to pressure." (Burawoy, 1998:18-19) As such, my direct involvement gave me the possibility of reading my object of analysis from various angles and in its various and differentiated life cycles, namely from the preparation to the implementation phases, with a special focus on the way Climáximo responds to social challenges and demands and how decisions are taken internally to respond to those challenges. It is with this in mind that I observed the activist group, the preparation and implementation of the Portuguese climate jobs campaign not only as an investigator, but also as a member, participating to the meetings and activities. On the other hand, my reflection is based on a multi-source analysis, to overcome the danger of blind subjectivity. That is why this analysis is not only based on what I read or saw, but also and above all on what I did as a participant in the preparation and implementation of the Portuguese campaign.

• Extension of the direct observation over time and space

A second important dimension of the extended case method is related to time and space. The importance of extending the observation through time and space is related to the fact that it gives the opportunity to observe actions and reactions of the object of study in various contexts and situations. According to Burawoy this approach helps "the observer to unpack those situational experiences by moving with the participants through their space and time. The move may be virtual, as for example in historical interpretation; real, as in participant-observation; or some combination of the two, as in the clinical interview." (Burawoy, 1998:14) Such variation through time and space often helps to delineate the forces shaping a particular society. These views of Burawoy are not far from Van Velsen's idea that "the most fruitful use of cases consists in taking a series of specific incidents affecting the same persons or groups, through a long period of time, and showing [...] [the] change of social relations among these persons and groups, within the framework of their social system and culture." (Van Velsen, 1967:10) In this sequence, I spent a substantial period (from September 2015 to May 2017) participating in the meetings and activities of Climáximo, taking notes and accessing the minutes of all the meetings and activities of the activist group, including material used for external as well as internal communication.

Also, one of the most important aspects of the extended case method is to look at the links between the local and the extra-local, to study realities in relation to their extralocal connections. In this line, "the extended case method looks upon the external field as the conditions of existence of the locale within which research occurs. We therefore move beyond social processes to delineate the social forces that impress themselves on the ethnographic locale." (Burawoy, 1998:12) For Van Velsen as well (1967), this method includes the observation and the analysis of the interrelation of structural ('universal') regularities on the one hand, and the actual ('unique') behavior of individuals or local groups on the other hand. Considering these links comes from the postulate that social phenomena are interrelated and local action cannot be understood without being linked to extra-local ones. That is why this method demands "the meticulous examination of local societal trends and institutional policies, and connection to the macro levels of these trends and policies." (Koltai et al., 2014:2) As such, my direct involvement and observation of the preparation and implementation of the Climate jobs campaign in Portugal and other activities related to climate justice activism was always done in relation to what was going on in the global context. In fact, we cannot understand the national climate justice activism if we do not situate it against the global climate political context dominated by marketdriven solutions, State-centered decision-making processes and reactions from a range of social and labour movements. This effort to relate national climate justice to the global political space is of great relevance. In fact, current climate justice activism comes as a reaction to the global climate political order, and the way climate policies are conceived and implemented at the national and sub-national levels. Without that global context, the existence of climate justice activism will be unjustifiable, and that is why the latter cannot be analyzed in an autarkical way, cut off from the first.

• Going beyond pre-determined theories

Following the extended case method approach, research is not about filling a predetermined template, or simply confirming a pre-determined theory; social science research is about building a theory from observation and analysis of social facts. In that sense this approach is

A form of craft production of knowledge wherein the conceiver of research is simultaneously the executor. The individual participant observer carries out all the tasks of the research process in collaboration with her subjects. The research process is not arbitrary but it cannot be reduced to a set of uniform procedure. (Burawoy, 1998:28)

Theories are thus simply used as guidelines, rather than templates, they are frames to help researchers remain in the field of research and maintain their sense of objectivity and not simply falling in the emotional field of activism. Theories are then instruments of dialogue between researchers, the milieus they working on and the other protagonists. That is the reason why this method "applies reflexive science to ethnography in order to extract the general from the unique, to move from the 'micro' to the 'macro,' and to connect the present to the past in anticipation of the future, all by building on preexisting theory." (Burawoy, 1998: 5) To this effect, my analysis of the Portuguese climate jobs campaign in light of the global climate justice activism is done not just to discover the points of convergence and divergence between the two contexts, but also and above all to point out its specificity and originality. Such specificity and originality is contemplated not only from a practical, but also and above all from a theoretical perspective. For the purpose of this analysis, I considered frameworks such as the global climate governance and the carbon trading dogma to render account of the state-centrality and the market-based orientations in the global climate game. I proceeded with the JT, as a tool that puts labour, social and environmental justice at the center stage and as a way forward from the current failing global climate regime. On the basis of this background, and considering the particularities and specificities of the Portuguese campaign, I chose to discuss theoretical debates on SMU and climate justice, as they facilitate respectively the analysis of the development of labour's environmental consciousness and climate activism. They equally facilitate the understanding of the climate jobs campaign as a field of dialogue between the two categories of organizations and their demands. This is of particular relevance in better accounting for the Portuguese climate jobs campaign.

2- Data collection techniques

As mentioned earlier, this method was supported by techniques such as participantobservation and ethnographic notes-taking during the preparation and official launching of
the Portuguese climate jobs campaign, the deployment of seven in-depth semi-structured
interviews with key actors from participating organizations, and the retrieval of published
and unpublished scientific and grey literature available. Through the combination of those
approaches, I gathered the necessary materials for this research. Before describing the
techniques used, the next point presents the final material I obtained from the fieldwork.

2.a- Final materials for the analysis

At the end of the fieldwork, I therefore had a set of four folders containing the materials to work with. The folders could be divided as follow

- Folder one: This first folder is made up of all the notes taken during my various readings. These is then used in building the framework of this work on the basis of what was already done, or being done by other researchers. The documents considered here are published scientific books and articles and virtual documents retrieved from the Internet (after careful scrutiny and source-checking). I also take into consideration articles on environmental activism published by national newspapers such as *Diario de Noticias*, *Esquerda.net* and *Dihneiro Vivo*, among others. Besides being the outcomes of my readings, those notes are also from the various trainings I attended, mostly on *climate change diplomacy*, organized by UNITAR; *climate justice* organized by the University of East Anglia; *carbon trading*; and *climate action* organized by the World Bank Group.
- Folder two: In this folder I have the ethnographic notes taken during my participation to the various activities, mostly the toxic tours, the official launching of the climate jobs campaign in Portugal and the "jogam con a nossa vida⁴⁸" activities. This folder equally contains the minutes of all the meetings of Climáximo, including those that were focused on the preparation of the campaign and to which other partners of the campaign participated⁴⁹, as well as the notes gathered from the after-meeting exchanges made through the use of emails or in social situations. The folder also contains personal records. Those are statements I recorded from the interventions of protagonists during special events such as the national climate justice encounters. These personal records differ from personal

⁴⁸ This week-long activity was carried out in the sequence of the climate jobs campaign in various cities of the countries by Climáximo and the other organizations of the campaign. The objective of the multifacetted activities carried out was to raise popular awareness on the fact that the capital is playing with our lives, and using greenwashing activities and actions to keep us asleep. I will describe this activity with more details in the next chapter.

⁴⁹ It is important to mention that all the preparatory meeting were organized and led by Climáximo. Moreover, unlike the other partners that often participated to those preparatory meetings, CGTP was never present, and was never represented. Climáximo often played the intermediaries by sending the reports of the meetings to the confederation and bringing in return the proposals and concerns of the confederation to the other partners.

notes in the sense that they recorded original statements of the protagonists. The notes taken and contained in this folder were of important relevance for building the third part of this thesis. Nevertheless, given their nature (personal notes) I will not quote them explicitly. Explicit references to this folder are made only when the material used is either from the minutes of the meetings, personal records or from shared mails.

- Folder three: this folder contains the informative materials prepared and used by the activist group during its various outdoor activities. Moreover, it also contains the visual materials used by the group in virtual environments such as WordPress.com, riseup.net and the official page of the campaign among others, and specifically on social medial pages such as Facebook. As such, in this folder we have various types of material such as pamphlets of the campaign, leaflets prepared and shared both during the official launching of campaign and other streets activities, official declarations made either by Climáximo in support of mobilizations organized by partner organizations and those made by partner organizations in support of Climáximo outdoor activities. It also includes a collection of pictures that I took during the various mobilizations organized by the activist group.
- Folder four: This last folder contains the records and subsequent transcriptions of the various interviews I carried out with some key actors representing the various organizations engaged in the campaign. All the interviewees are individuals who participated in the organization and implementation of the campaign either as representatives of their Organizations (that I mentioned above), or by personal engagement.

2.b- Participant-observation and ethnographic notes-taking

It is important to mention that my first contact with the activist group Climáximo was established on November 27th 2015. Through a Facebook request, I entered in contact with one member of the movement, and we agreed to have a meeting a few days later, precisely on the 01st of December. On that day, we met 30 minutes before the group meeting and he made a presentation of the group and its activities. Following that, I started

participating to meetings on that very day. During this first meeting with the group I introduced myself and my research to the activists. I informed them of my intention to focus my research on the group and the Portuguese climate jobs campaign to be launched, and obtained their consent in doing so. At the end of the meeting my email address was officially integrated both in the Facebook group and the internal mailing list of the movement. I was equally given access to the official WordPress and Riseup pages that are used by the group both for external and internal communication purposes. From that date, I started participating to all the meetings and outdoor activities of the movement and taking notes of what was happening. I used the ethnographic note-taking approach more often during outdoor activities. I did not put a specific stress on taking notes during normal meetings, as meetings minutes were always shared afterward to all through the group list and people could react or add omissions. In this regards even those cannot be in the meeting, can still be informed. The access to external as well as internal resources and communication tools of the movement was of great use for me, as it helped gather information from all angles, including those delivered in the few meetings or activities I could not attend during my direct observation period. The information circulated in the form of meetings minutes, emails, as well as the ethnographic notes I took, constitutes the content of the second folder of materials used in this section. These notes and post-meeting communications helped me in evaluating the internal power logics and the decisionmaking process within the movements. Moreover, they allowed me to grasp the disagreements and different tendencies with regards to the outdoor activities, as well as official positions taken by the movement on some political matters, social justice issues, environmental struggles and other social mobilizations.

2.c- Semi-structured interviews

To complement the extended participant-observation, and to better understand the logics underlying the organization and the implementation of the climate jobs campaign in Portugal, as well as the positions of all the organizations engaged in the campaign, I carried out seven semi-structured interviews with the key informants coming from those participating organizations; those key informants were official representatives of the participating organizations in the organizing committee of the campaign. The selection criteria were therefore not based on gender, age or occupation, but to their representative

roles in the preparation and implementation of the campaign. Those interviews took the "story telling approach" (Schneider, 2007), with the aim of giving more flexibility to the respondents, who could better dwell on details and equally give their personal perception than in the case of more structured interviews, and to give more insights about the success stories, the challenges and the limits of the campaign. The choice of this approach was motivated by the fact that my aim was to evaluate the quality of the actions and their impacts on the decision-making process and on people's perceptions, rather than mapping or quantifying the actors or second level activities carried out within the campaign framework. Using the semi-structured approach, the questions all originated from the same general research framework, divided in five topics, namely:

- Brief biography of the interviewee, particularly in relation to climate justice activism:
- Official position of the Organization with regards to the Paris agreement, and personal point of view of the interviewee;
- Personal understanding of the climate jobs campaign in general and the Portuguese case in particular;
- State of social mobilizations in general and environmental/climate justice mobilizations in particular, in Portugal;
- State of the involvement of Portuguese trade unions and workers in the climate justice activism.

All the interviews lasted between one and two hours, and were recorded. Before starting each interview, I briefly introduced myself and my work, informed the interviewees of my intention to make use of a tape-recorder, and obtained their consent. I also informed interviewees about the use of the data collected from them, and asked their permission to be explicitly mentioned in this work, as well as their affiliations. Faced with the reluctance of some interviewees to be mentioned nominally, I finally decided not to quote any of them nominally. Nevertheless, all agree that I could mention their affiliations. It is important to mention that I tried to use the data collected as much as possible in their raw form; their editing has been limited as much as possible in an attempt to "register" the conversations "in their essential factuality" (Gobo 2001 quoted in Leonardi, 2012:264).

The key informants I interviewed and whose data I will use in the following chapters with the identification Int1 to Int7 can be briefly introduced as follow:

Int1 (male) is a biology teacher and an active member of the national federation of workers (Federação nacional dos professores- FENPROF). He has been the regional leader of the environmental organization Quercus in one of the regions of the country for 8 years now. He is a senior staff of CGTP, where he equally forms part of the core group in charge of environmental matters, and is the representative of the confederation in the national council for environment and sustainable development (CNADS), a national consultative organ on environmental and sustainable development matters. He is also long-time activist (more than 15 years), and his struggles are related to the fight against climate injustices, exploitation of uranium, asbestos in public buildings and the protection of natural parks among others. He involved in the campaign only as CGTP and FENPROF member, and I interviewed him, in the French language, on the 13th of April 2016 in the premises of CGTP in Lisbon as member of both groups, since Quercus was not officially member of the campaign. Concerning climate jobs and JT, he thinks the best option is the one endorsed by CGTP and that, in turn is the position of ITUC.

Int2 (male) is an agronomist and environmental engineer by formation, and is currently doing a PhD in climate change and sustainable development. His is a long-time activist, very present in social as well as traditional medias, through article writing for newspapers and intervention in TV programs. Co-founder of Climáximo, he is also very active in anti-prospection along the Alentejo coast, austerity measures and fight against precarious work in Portugal. Beside all this, he is an active member of a political party known as Bloco, and a municipal councilor (deputado municipal) of his party in one of the important municipalities of the Lisbon region. He is also very involved in the Climadapt project that assists municipalities of the country to develop their climate adaptation strategies. He got involved in the campaign as a member of Climáximo and Precários Inflexíveis, and I interviewed him mostly under this double banner on the 29th of June 2016, in English language, in the premises of the Center for Social Studies in Lisbon. He is currently developing another project aimed at taking advantage of the 2017 municipal elections to force candidates to introduce to fight against prospection in their electoral projects.

Int3 (male) is a foreigner, but Portuguese-based activist. Mathematician by formation, he started involving in activism at the age of 20 as a reaction to the political situation in his country and, since then he has built a solid network with other activists both at the national (Portugal and his country of origin) and international levels. Of all the activists who were involved in the campaign, he is the most internationally active. He is equally a co-founder of Climáximo and an active member of GAIA. It is under this double identity that I interviewed him, in English language, on July 27th 2016 in GAIA. He is the most radical and anti-capitalist of all the members of the campaign, and can be said to be the natural leaders of the campaign and Climáximo. His activist's activities are centered on climate justice, gender equality, LGBT's rights, anti-extractive industry and policies, precarious work and austerity, and anti-transatlantic-trade agreements among others.

Int4 (male) is a physician by formation, and currently doing another PhD in climate change and sustainable development. Even though he is mostly active in Portugal, he acknowledges that his desire to engage in social and climate struggles was born in the UK when he immigrated there after his graduation in Portugal. The relatively high level of climate consciousness and the English tradition of labour movements protesting for the protection of the environment and the protection of jobs pushed him to think of his native Portugal and, when he came back to the country, he started involving in several social struggles against climate injustices, austerity, and social injustices among others. He defends that the fight for climate justice cannot be separated from other social demands for food security, more equity and peace. He expressed his disappointment to see the limited engagement of Portuguese labour movements and unions for environmental matters. I interviewed him, in English language, on August 2nd 2016, specifically as a climáximo member, in one of the public gardens of Lisbon.

Int5 (female) is a lawyer by formation and a long-time member (since the creation of the movement in 2007) of the Portuguese labour movement known as Precários Inflexíveis (PI). Her activism has so far been limited to the fight for better work conditions, against precarious work, fake freelance workers payment receipts (falsos recibos verdes), and austerity measures in Portugal. She was the person who requested the collaboration of PI for the campaign, and she remains the first contact for the Campaign. She participated to all the preparatory meetings on behalf of PI. Through the climate jobs campaign, both her and her organization are getting involved in climate struggles for the first time. That is the

reason why, apart from the official position of the campaign, both PI and her do not assume any individual position with regards to climate change and the Paris agreement. Our conversation, in English language, took place in a one coffee shop in Lisbon on September 20th 2016, and I interviewed her as a PI member exclusively. Her inputs in this regards were important as she is the one officially pushing the climate jobs agenda within PI, and representing PI in the campaign.

Int6 (male) is a long-time unionist. He is an anthropologist by formation and a senior staff of CGTP. Member of the core group in charge of environmental and sustainable development matters within the confederation, he is so far the most active as far as the climate jobs campaign is concerned. He often produces internal articles to sensitize other members of the confederation on environmental challenges, climate change and climate jobs. His position nevertheless, as far as creating jobs in the JT context is concerned, is not far from that of ITUC; this should be done within a green economy and not automatically in a systemically new society. He thinks we should not use the climate change terminology, but talk of green jobs, in the spirit of green economy. I interviewed him in French on April 13th 2016 in the premises of CGTP in Lisbon.

Int7 (male) is a long-time unionist. He is a member of the national executive commission of CGTP and key member of the department of environment and sustainable development of the confederation. His role was therefore fundamental for CGTP to involve in the campaign, even though he does not participate directly in the activities of the campaign. In the context of the climate jobs campaign, he advocates that the specificities of CGTP as trade union should be taken into consideration. In fact, the confederation cannot ask for climate jobs under the same conditions as the other members of the campaign which are not unions. Unions should defend the interests of workers first, and that pushes them to be less radical in their demands than the others of the campaign. My interview with him took place on April 13th 2016 in the premises of CGTP in Lisbon, and the languages used during our conversation were English and Portuguese.

2.d- Retrieval of scientific and grey literature

At this level, I mainly focused on the grey and scientific literature available in written and published documents from a variety of sources. The retrieval concerned, among others, documents from sources such as:

- Articles from movements, NGOs' and the OMCJC. To have these materials, I consulted the webpages of the climate jobs campaigns of UK, South Africa, Canada, New York, Norway, Mauritius, Philippines, France and Portugal. I also got reports and articles from the websites of movements and organizations such as GAIA, Climáximo and PI among others
- Official documents and resolutions. These documents that help me to have the official positions of organizations concerning some important matters such as the climate jobs campaign, climate justice, JT and the Paris agreement among others came basically from two sources: They were either published documents, of which I obtained a copy like in the case of CGTP official positions for example, or online resources that I obtained from the webpages of organizations such as ILO, ITUC, ETUC, UNFCCC and UNEP among others.
- Non-academic literature from research foundations, activists' blogs, newspapers and militant scholars' publications and blogs among others. To obtain the necessary documents, I used resources such as the Rosa Luxemburg page, Internet search and articles from the Ejolt page
- Academic literature such as scientific books and academic journals. To get these working materials, I used resources from libraries, search engines from the web such as Google, Google-books, Academia.edu and Google-scholars. I also got articles by accessing webpages of some open access journals such as *Interface* and the Journal of Political Ecology
- Course notes from thematic online courses. My participation to some MOOC (massive open online course), particularly those on carbon trading⁵⁰, climate action⁵¹ and climate justice⁵² gave me the opportunity to access materials that ended up being useful for this research. Access to these online materials was facilitated by my previous participation to the courses. I could therefore use the

⁵⁰ World Bank group online course "Carbon trading": http://worldbank.mrooms.net/course/view.php?id=833

⁵¹ World Bank group online course "Turn Down the Heat: From Climate Science to Action": https://www.coursera.org/learn/climate-science

⁵² University of East Anglia's online course on "Climate justice": https://www.futurelearn.com/courses/environmental-justice/steps/31087

credentials that were provided by the courses' organizers to access the pages at my convenience and use the necessary course notes.

The selection of reading materials as well as courses to undertake was oriented by topics such as environmental/climate justice, JT, climate jobs campaign, SMU, and climate activism among others. It is important to mention that these data were of great importance not only in the elaboration of the first two parts of this thesis, but also and above all for the scientific production and discussion of field data in this last section of my analysis.

Basically, the multi-techniques data collection approach that I used was based on a combination of field notes taken during my participant-observation, semi-structured interviews with some key informants, and collection and interpretation of a variety of published or online materials. Such integrative fieldwork methodology on which my investigation was based is, in the words of Koltai et al., a "complex, and in-depth process [providing] context and completeness to information gathered from the population." (2014:2) In fact, in view of this research, the multi-techniques approach represents a coherent and unified method for generating more valid inferences than any one singled out approach could generate on its own (Ahmed and Sil, 2012).

3- Researcher's involvement and the question of neutrality in the light of strong objectivity

I am fully aware of the critiques that can be addressed to this methodological approach in terms of objectivity. To counterbalance them, I will adopt both "standpoint" and "strong objectivity" approaches, and address objectivity by being self-critical of my own subjectivity as a participant-researcher, and relying only on scientifically valid arguments and facts based on a multi-source qualitative evaluation. In the methodological approach that I adopted, the position of the observer is a crucial issue (Gobo, 2001). Here, "the social location is very close to epistemic position, in the sense that not only it varies from an epistemological point of view, but also and above all because some social locations offer the potential to be more epistemically reliable than others." (Zalta et al., 2006) That is why Harding (2009) argues that through its social location, the standpoint approach offers an incredibly effective opportunity for the production of sound knowledge about marginalized groups. In fact, research based on standpoint approaches insists that

researchers focus their attention on the standpoints of the underprivileged. This is, as Haraway (1988) suggests, because knowledge is always socially situated. Haraway hence suggests that all knowledge is local and limited, and by so doing, she denies the possibility of an impartial view-from-nowhere that has often been associated with the perspective of objective knowledge. Objectivity should not be defined in terms of neutrality. In fact, our view of the world is always conditioned by our social location, since our social location shapes our perspective on the world (through differential experiences) and we can only interact with the world and know it through that perspective. Equally, those differentiated perspectives carry epistemic consequences (Zalta et al., 2006). In this regards, my position as an activist, researcher and non-Portuguese presents specific characteristics that justify the originality of my standpoint. As an activist, I have the possibility of personally involving with the object of my study and therefore speak out of my own experience rather than simply using second hand materials. As a researcher, I have the opportunity to confront the data collected with other sources and analyze them following scientifically accepted canons. Finally, as a non-Portuguese, I have the ability of detaching myself better and producing a less umbilical and emotional analysis.

All those particularities are important in producing research that responds to the demands of strong objectivity. In fact, strong objectivity maintains the situated knowledge thesis according to which perspectives are differentiated depending on the social location of the researcher, and it calls on researchers to engage in reflexive analysis of how their own social location shapes their research. More to that, it takes into consideration the "critical consciousness about the nature of our social location and the difference it makes epistemically." (Wylie, 2003:31) It is on the basis of the above development that I argue that my position with regards to the object of my study is the very source of the accuracy of my analysis, and I present it not as an absolute, evangelical truth, but as a catalyst of discussion and questioning, not only for the scientific community but also for activists' groups.

Conscious that "the endless debate about axiological neutrality often replaces a discussion about epistemological neutrality of sociological techniques" (Bourdieu et al., 2005:61), I nevertheless refuse my research approach to be considered unscientific by claiming its objectivity and not its neutrality. In fact, I ground its validity on the feminist standpoint theory, developed by Harding in terms of strong objectivity. I start from the

view of Leander according to which the golden rules of "objective research' [imply] that research should (i) follow strictly defined, stringent, fixed and unchanging rules and that (ii) researchers should refrain from engaging personally and especially emotionally with their research object." (Leander, 2013:5) In this perspective the greatest critique that this methodological approach can face is related to the question of neutrality. As a reply to such critique, it is important to clarify how I understand the concept of objectivity in this research. In fact, here I do not understand objectivity in the sense of neutrality. Beside being practically impossible, the neutrality ideal provides no resistance to the production of systematically distorted results of research. Even worse, "it defends and legitimates the institutions and practices through which the distortions and their exploitative consequences are generated." (Harding, 1992:568) More to that, "the conventional notion of objectivity that links it to the neutrality ideal appears too weak to do what it sets out to do." (Harding, 1995:346) Based on the conviction that the personal implication, closeness or friendships of observer-researchers can provide them with essential information not only about how the context they are researching works, but also enhance their own ability to understand that context (Leander, 2013), I consider objectivity in the sense of detachment, and apply self-criticism of my own subjectivity as a participant-researcher. Such objectivity requires a certain detachment, a capacity to achieve some distance from one's own spontaneous perceptions and convictions, to imagine how the world appears in another's eyes, to experimentally adopt perspectives that do not come naturally. In other words, it helps to develop, as Thomas Nagel would say, "a view of the world in which one's own self stands not at the center, but appears merely as one object among many" (quoted by Haskell, 1990:132) and in the last resort a scholar who approaches the research process from such point of view of strong objectivity is interested not only in producing a useful knowledge, but also in revealing the power relations that are hidden behind processes (Naples, 2007).

Following that, I argue that from the perspective of strong objectivity, Portuguese labour movements, trade-unions, environmental movements and activists involved in climate jobs campaign (and that I considered in this research) can be viewed as 'unprivileged', because none of them participates in the climate/environmental decision-making in the country. Moreover, Climáximo activists that are currently leading the campaign are all youth, with limited resources, and their movement does not have any legal status to force decision-makers from an institutional point of view. Nevertheless, they

constitute a social force by relying on legally instituted organizations and by building a social movement to contest the current social order though social mobilizations and other streets activities. As such, even though they appear to be in an 'underprivileged' and weakness position, Portuguese campaigners, through their networking and public activities represent a non-negligible social force.

From a more personal perspective, my involvement in the campaign is of relevance not only for the purpose of this research (as it has been instrumental in gathering the empirical materials used for this thesis) but also and above all, I can consider it as a transformative learning process from a double perspective, what I can respectively call 'reflexive' and 'subjective' dimensions. In fact, my triple identity as a worker, student and activist facilitated my integration and my collaboration with the other campaigners (underprivileged) with whom I share at least one of the characteristics (worker, student or activist). Moreover, as a foreigner (coming from a developing and vulnerable country due to its multi-facetted exposure: Coastal regions, deforestation and Sahara desert, but with very limited activist tradition and practices), my involvement with the campaign became a learning activism process. The combination of these two dimensions contributed in shaping a standpoint from which this work is done, and which aligns it with the strong objectivity ideal. Consequently, this research is neither the fruit of an exclusive reflexive (speculative) exercise, nor that of a simple description of a subjective experience (empirical), but the result of the combination of both learning and research processes.

CHAPTER TWO

CLIMATE JOBS CAMPAIGN OF PORTUGAL: CONTEXT AND OFFICIAL LAUNCHING



The current global climate crisis, as we have seen in previous chapters, needs effective public policies and public actions to be solved. Nevertheless, as a Climáximo and PI activist stated "the scale of what needs to be done surpasses by far the UNFCCC institution, because it has been proven that the institution has tried time and time again to put in place instruments but has always been kidnapped by multinationals or even by some countries because of their interests." (Int 2)

Based on the above observation, national and subnational movements have emerged to force the conception and implementation of JT policies not only from the global, but above all from the national and sub-national levels. The emergence of climate jobs campaigns in general, and in particular the Portuguese climate jobs campaign that I am analyzing in this chapter, is in line with that tendency and, to paraphrase Arolowo (2015), they are seeking a way of mainstreaming unemployment into climate negotiations and policies not only at the global, but also and above all at the national levels. In order to understand the specific campaign considered in this chapter, I will first situate it in the context of the two crises that justify its implementation; namely the climate crisis and the unemployment crisis. The second moment will be dedicated to the actors of the campaign, and the last part will be centered on its official launching and its post-official-launching activities.

1- Portugal, between global warming and unemployment challenges

Streets activities around the Paris COP 21 event were limited because of the ban imposed following the terrorist attacks. Nevertheless, the few ones organized by climate justice and other social movements saw the participation of activists from all over the world. Those activists, among whom some were Portuguese-based, went back from the COP with the determination to continue the fight at the national and local levels. It is in this context that we can align the Portuguese campaign known as *Empregos para o clima* that I am analyzing in this last section of my work. To better understand that campaign, it is important to situate it in the national context from which it emerged, mostly from the perspective of the double crisis (climate and unemployment) it is trying to address.

1.a- Global warming crisis

Climate change is unavoidably and undoubtfully one of the most important and pressing challenges faced by the international community since a few decades. Addressing the unabated rise in GHG emissions and the resulting negative impacts of climate change, such as altered ecosystems, extreme weather and social vulnerability among others, remains an urgent and critical challenge for the global community, and countries need to timely address it, if we want to save our planet and our living environment from catastrophes. In fact, as Goldmark points out,

The increased frequency of severe storms and weather-related disasters is driven in part by global carbon emissions, which are rising sharply. We are heading rapidly toward a series of irreversible, adverse consequences including more destructive storms, severe droughts, reduced agricultural yield, decreased availability of water, and hundreds of millions of "climate refugees (Goldmark, 2013).

This warning from Goldmark is further enhanced, updated and developed by the 2015 United Nations report on the Millennium Development Goals (MGDs) in the following terms:

A continual rise in greenhouse gas emissions is projected to further warm the planet and cause long-lasting changes in the climate system, threatening severe and irreversible consequences for people and ecosystems. Impacts on natural and human systems are projected to span the globe, with varying effects region to region. They include altered ecosystems and habitats; detrimental impacts on agriculture, potentially leading to food shortages; and more and longer lasting weather extremes and natural disasters, along with numerous risks to society.

Between 1990 and 2012, global emissions of carbon dioxide increased by over 50 per cent. Data collected over two decades show that the growth in global emissions has accelerated, rising 10 per cent from 1990 to 2000 and 38 per cent from 2000 to 2012, driven mostly by growth in the developing regions (United Nations, 2015:53).

When it comes to the specific case of Portugal, the situation is not different. In fact, even though there are no clear quantitative estimates available with regards to the impacts of extreme weather events and trends in recent years related to climate change, the country is highly "vulnerable to climate change impacts that result mainly from a decreasing annual precipitation, more intense extreme weather and climate events, particularly heat waves, droughts, and inundations associated with heavy precipitation events, and mean sea level rise." (Carvalho et al., 2014:200) These phenomena threaten its forests, its islands and its coastal territories, and this in turn leads to high social and economic costs. Considering for example coastal-zones-related environmental vulnerabilities, it is important to mention that in Portugal "nearly two thirds of the population are concentrated in the littoral areas, whereas the interior is increasingly being abandoned in spite of investment efforts to stabilize the local population" (Figueiredo, 2002:199); this concentration of the population in the coastal/littoral areas does not only increase the level of stress on the environment, but also and above all contribute in increasing the number of people exposed to coastalzones-related environmental catastrophes. Equally, if we take the forest sector, it is estimated that the country annually spends between 60 and 140 million euros because of forest fires. So far, the peak in forest fires related expenditures was in 2005 with costs estimated at about 290 million euros. Equally, losses in the agriculture sector cannot be underestimated: The 2012 drought, for example, had an estimated cost of 200 million euros, with additional management and administrative costs of more than 250.000 euros (Programa Nacional para as Alterações Climáticas, 2015a).

Other sectors are equally highly exposed to the adverse effects of climate change. According to a study done by the Portuguese Environment Agency, sectors such as agriculture, biodiversity, energy, health, security of people and goods, transport and communication, and coastal zones are all affected and will continue to be affected by climatic change in the coming years. In order to face this situation, the agency proposes that the efforts of the government be directed towards research and innovation, funding of adaptation, international cooperation, communication and dissemination. The government should also integrate adaptation in land-use planning and in water resource management.

The graph below summarizes the vulnerable sectors as well as what needs to be done, with the expected outcomes as foreseen by the 2020 Portuguese national strategy for adaptation to climate change.

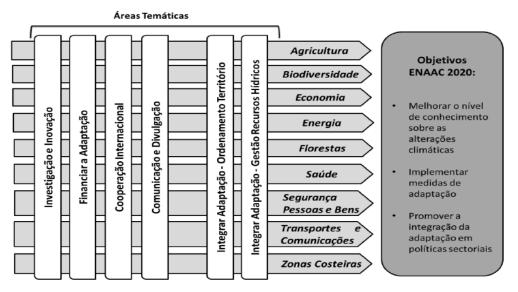


FIGURA 3: ESTRUTURA DE ARTICULAÇÃO DE ÁREAS TEMÁTICAS E GRUPOS SETORIAIS NA ENAAC 2020

Source: (Programa Nacional para as Alterações Climáticas, 2015c:20)

Following those lines of action, the Portuguese climate policy aims at reaching three objectives by the year 2030: 1)- Transversal reduction of GHG emissions between 30% and 40% (62-53 MtCO2) in relation to 2005 across emitting all sectors; 2)- increase to 40% the share of renewable energies in the final energy consumption; 3)- increase the energy efficiency through a 30% reduction on the energy baseline by 2030 (Programa Nacional para as Alterações Climáticas, 2015c). By doing so, Portugal will be promoting the transition to a low-carbon economy, generating more wealth and employment, contributing to green growth, ensuring a sustainable path to reduce national GHG emissions in order to achieve a target of -18% to -23% in 2020, and - 30% to -40% in 2030 compared to 2005, and ensuring compliance with its international and national mitigation commitments (Programa Nacional para as Alterações Climáticas, 2015b). Nevertheless, despite the above declarations and plans, the situation in the field shows a different scenario in terms of emissions. In fact, according to the data provided by the National Climate Change Program, the country witnessed an increase in GHG emissions of "about 44% in 2005 compared to the 1990 levels. However, in 2012 such situation was reverted (with a decrease of -22% compared to 2005) and the country found itself with only 13% of emissions (Programa Nacional para as Alterações Climáticas, 2015b:12). Even though such decrease could be related to an increase in renewable energies production, the substantial role that the economic crisis played in reducing the industrial activities of the countries after 2005 cannot be ignored. There are therefore concerns that with the recent economic recovery the country's emissions might continue to grow. This increasing tendency is confirmed by the 2017 Portuguese National Inventory Report that states: "After the continuous decrease of national emissions verified since 2005, the emissions registered a significant growth in 2015, with an increase of 7.0% compared to the 2014." (Agência Portuguesa do Ambiente, 2017:iv) The report attributes such increase to the energy industry that reduced it hydropower production in 2015. This situation brings me to argue that, following the current scenario, Portugal might not meet its previously set reductions targets, therefore contributing to the enhancement of global warming and consequently to the vulnerability of its population, biodiversity, coastal and in-land territories, forests and economy among others

So, going from the above analysis, we can easily draw a conclusion according to which climate change is not only an environmental issue, but above all, it is an important social issue with great political, security and labour implications, that need to be addressed urgently if the international community in general and Portugal in particular want to resolutely engage in the path of JT to a low carbon economy.

1.b- The employment crisis

The recent global economic and financial recession worsened the already existing and preoccupying phenomenon of joblessness, job scarcity and job precarity around the word. In fact, faced with the economic and financial crisis, the private sector reduced drastically the number of employees around the world in order to continue securing profits for the capital and to keep businesses going. In the public sector, we witnessed an increase intervention of Bretton Hood institutions and regional economic organizations in the management of sovereign States economic affairs through the implementation of imposed and non-contextualized structural adjustment plans, with a great reduction of civil servants and other States' workers and social services in several parts of the world (Barca, 2015). Such situation of joblessness has become a persistent one and, according to the 2014 Poushter's previsions, it was to be the second most important trend for the year 2015

(Poushter, 2014) and probably beyond, despite all the political discourses about the end of recession, and the current and projected economic growth. This contradiction called "persistent jobless growth' refers to the phenomenon in which economies exiting recessions demonstrate economic growth while merely maintaining – or, in some cases, decreasing – their level of employment." (Summers, 2014:1) Summers continues his argument by quoting the example of China that, despite its unprecedented economic growth, has seen a great decline in the manufacturing employment because of the increase use of technology and automation. Such automation of services and workplace that is becoming widely accessible and used around the world has important social costs, among which we can mention loss of job positions and the subsequent current rise of unemployment in many countries of the world.

The point raised by Summers goes in line with that of ILO in its 2012 *Global Employment Trends* report. According to the Organization, 74.8 million youths between the ages 15-24 were unemployed in 2011, which represents an increase of 4 million since 2007. ILO report points out that the World is facing a 600 million jobs challenge, and stresses on the fact that young people are almost three times as likely as adults to be unemployed (ILO, 2012a). These figures are further clarified in the 2016 report of the same organization; today, more than 200 million people around the world are jobless, while hundreds of million are underemployed in the agricultural sector or holding precarious and non-sustainable jobs.

When it comes to the European Union and to Portugal specifically, we can see that the average unemployment rate among the 28 EU countries was 8.2% in December 2016. This was a decrease compared to the 9.0% registered in December 2015. During the same period, Portugal was among the countries that registered the largest decrease in their unemployment rate (from 12.2% to 10.2%) after Croatia (from 15.0% to 11.4%) and Spain (from 20.7% to 18.4%) (European Union, 2017). However, this decrease can be contested from two different perspectives: The first perspective concerns the reasons behind the decrease. In fact, the decrease can partially be a result of young people staying longer in school (United Nations, 2015), just as it can be related to a number of other observed factors such as retirement, the long-term unemployed who are discouraged by the bureaucratic procedures of the employment agency (Instituto de Emprego) and who do not renew their registrations, the long-term unemployed who are removed from the lists of the

national employment agency under the motive that they are not actively seeking for employment (job seekers are supposed to present themselves every weeks to the employment centers, and failure to do so lead to their removal from jobseekers lists and the cancellation of their registration). The reduction can also be related to the number of people who leave the country to look for job opportunities in other parts of the World (Martins, 2017). The second perspective concerns the accuracy of the official numbers. According to the General Confederation of Portuguese Workers (CGTP), recent statistics in Portugal indicate an increase in precarity and consequently of precarious contracts. A recent employment survey indicates that, for the second quarter of 2016, almost one out of four employees had a precarious contract. Equally, according to the same survey, eight out of ten new contracts are precarious since 2013 (CGTP, 2016). These declarations are further confirmed by the PI activist that I interviewed. According to the activist,

Portugal has nearly 1 million unemployed, what represents a real unemployment rate of 18% in relation to the active population. The number of jobs is below 4.5 million and long-term unemployment (over two years) already exceeds two out of three officially unemployed. Despite that, the government continues to invest in internships that are used by companies with large profits such as Nestlé, EDP, Sonae, BPI or BNP Paribas to create precarious job opportunities. (Int 5)

In such situation, workers are subjected to increasing jobs instability and turnover between companies and unemployment, while companies take advantage of the funding of precarity entertained by governmental programs. That is why the jobs newly created are not sufficient to significantly reduce the number of unemployed (Casula, 2016), and the contracts and jobs conditions are not good enough to reduce the level of precariousness. It is because of the importance of jobs precarity in the country that the Portuguese climate jobs campaign decided to use its vocabulary as indicated by the GAIA member and Climáximo activist:

We are already framing the campaign with the language of precarity and employment because that is the issue of Portugal; this is how people feel, this is what they are suffering from, and we are doing it in the sense they think they are suffering from. I don't care about objective reality. This is how it is translated in public discourse and this is how we are also translating it the campaign, and not through environment related accidents at work for instance; that is not an issue. (Int 3)

From the above analysis, we can conclude that the challenges posed by the global climate crisis and the global economic and financial crisis, culminating in and enhancing the job scarcity and job precarity both at the global and national levels, have to be addressed synergistically. As Arowolo (2015) believes, in this situation the world must

seek a way of mainstreaming unemployment into climate negotiations, since it is only the entanglement of the two crises that can lead to the conception of what Pope Francis called "sustainable and integral development" and which is rendered possible through the implementation of an "integral ecology." That is, an ecology "which by definition does not exclude human beings, [and that] needs to take account of the value of labour." (Pope Francis, 2015: N° 124). Such integral environmentalism is based on the deep conviction that "the environment is part of a logic of receptivity. It is on loan to each generation, which must then hand it on to the next." (Portuguese Bishops' Conference, 2003: N° 20) This logic of receptivity is what, according to Portuguese Bishops, should motivate us to tackle environmental issues in general and global warming in particular from an intragenerational and inter-generational social justice perspective. Campaigners, in their initiative, believe that this goal can only be achieved by the JT to a low carbon economy.

2- Actors of the Portuguese climate job campaign

In the presentation of the actors of the campaign, I will mostly focus on those institutional actors which played a direct role in its conception and implementation.

• Climáximo

The idea of creating Climáximo germinated when four Portugal-based activists came together in December 2014, to think the possibility of building a climate justice spirit in the country. Following that, they planned the official launching of a grassroots movement for that purpose by January or February 2015. They started organizing small events such as popular dinners (jantares populares), and started recruiting other people. At the end of the month of February 2015 they organized a one-day climate justice activism training in which 25 people participated, and that served as the official launching of the movement. After that event, the initiators of the movement continued establishing contacts, discussing with some NGOs and other entities including universities and research centers, until July 2015. By July 2015 they had succeeded to stabilize the number of active members between 10 to 15 people per meeting. They then organized a retreat in summer of the same year to discuss together the way forward. During the retreat, as a GAIA member and Climáximo activist states, "it was decided that the group will focus on mobilizing for COP21, and also on launching the climate job campaign afterward." (Int 3) From all the

activists I interviewed, it transpired that until the birth of Climáximo, there was neither grassroots climate activism in general nor climate justice activism in particular in Portugal. In other words, there was nobody going to the streets to fight for climate justice.

Ideologically speaking, the group adopted an anti-capitalist approach based on a 'system change' approach, following the steps of the WSF. As the GAIA member and Climáximo activist I interviewed clearly stated, "we basically adopted the climate space manifesto. The climate space is a space created in the WSF on climate change. The manifesto is clear enough to specify that we are anti-capitalist and that we have certain choices to make, and are not going to base ourselves on lobbies' interests." (Int 3) In order to gain more ground and sustainably build itself, the movement had to choose more inclusive fighting strategies and engage in other struggles that had potential benefits. In fact, according to a Climáximo and PI activist, another influential member of the campaign

The first emitters of GHG in Portugal are power plants and then wood pulp for the industry. Nevertheless, the problem is that we have to find gaps where we can recruit, where we can speak and be understood, and this is very difficult. Obviously, it wouldn't have been all that difficult given the number of power plants, but the reality is that we are very few to involve in 100 things at the same time. So, we made the reasonable and strategic choice, and obviously with the oil and petrol industry we have the potential of building a national movement; it has the possibility of recruiting more people for the struggle, it has the possibility of winning, and it is important that Portugal shouldn't start exploiting petrol (Int 2).

At this moment, the group functions with volunteer activists. Nobody works for it on a permanent basis and members constantly meet to plan for actions. In short,

Climáximo is a grassroots collective in Lisbon that meets weekly to plan actions for a just and liveable planet. From protests to debates, from petitions to direct actions, [its members] are involved in various aspects of climate justice, such as: the struggle against oil and gas extraction projects, public transport campaigns, the climate jobs campaign and the fight against free trade agreements. (Climáximo, 2016)

Out of its four founding members two have left the country in search of greener pastures, and only one still participate fully to all meetings and events. The fourth is still active but scarcely participates to meeting. The movement currently counts around 15 active members who participate regularly to its meetings and activities. All those members are youth, mostly male, and most of them university students.

• CGTP-IN (Confederação Geral dos Trabalhadores Portugueses - Intersindical Nacional)

The Portuguese workers defense landscape is made up of several national, regional and local trade unions, gathered around two main confederations: The General Confederation of Portuguese Workers (CGTP-IN, later referred to as CGTP) and the General Union of Workers (UGT). For the purpose of this research only CGTP was considered, not only because it is more representative, but also and above all because it is the only confederation that was contacted and expressed its support for the climate jobs campaign. In fact, following the words of a PI activist campaign organizers "do not want to work with UGT because it is a right-wing confederation." (Int 5) More to that, it is very attached to market solutions, while according to the statement of a Climáximo activist "campaign's approach in general, in climate issues and climate jobs in particular is an antimarket and anti-capitalist one. That is why we are happy to have at least the support of CGTP and FENPROF."53 (Int 4) This rejection of market solutions is shared by CGTP, which is totally against the carbon market and which advocates a low-carbon, resourceefficient economic development, that does not endanger the planet and secures a new, fairer international economic order for workers, and it calls for the transition to a lowcarbon economy to ensure employment and the right to decent work (Casula, 2016). Giorgio Casula, one of the members of CGTP's core group in charge of environmental and sustainable development matters, explains what CGTP understands by decent jobs to be defended in the following terms:

The concept of decent work summarizes the aspirations of the human being in the professional field and covers several elements: opportunities for productive work with equitable remuneration; Safety in the workplace and social protection for families; better prospects for personal development and social integration; Freedom to express their concerns; organization and participation in decisions that affect their lives; and equality of opportunity and treatment for all women and men. (Casula, 2016:3)

It is important to mention that, apart from its opposition to carbon market expressed after COP 21, CGTP does not have any specific climate change strategy. In 1987, the confederation created the department of *Social Economy, Consumers and Defense of the Environment* that was later transformed into the department of *Sustainable Development, Consumers, Environment and Social Economy*. It is this department that manages the

⁵³ FENPROF (Federação Nacional dos Professores) is the national federation of Portuguese teachers. It is the most important teachers' federation in the country, and is also member of CGTP

environmental area, and it is made up of 3 people who represent the confederation in the Portuguese environmental tri-partite consultative organ. This national organ is made up of 30 members (1 from CGTP, 1 from UGT, representatives from patronal organizations, 3 or 4 from NGOs, several sent by the government, 2 sent by municipalities, some sent by the autonomous regions, and some from Professional orders). In the worlds of a long-time environmental activist, FENPROF member and CGTP senior staff, "this consultative organ makes proposals to the government on environmental and sustainable development matters." (Int 1) Furthermore, as another CGTP senior staff stated, it is this department that "prepares the official positions of the confederation regarding environmental matters, and which is in charge of internal environmental trainings both at the level of the confederation as well as individual trade unions which express the need to be trained." (Int 7) Nevertheless, this mission faces many difficulties because unions find some constraints in their own structure to get involved in the environmental discussion. For the long-time unionist and CGTP senior staff I interviewed such constraints include "mobilizing and organizational capacity, lack of formal representation in the environment arena and lack of resources and expertise to build an agenda on environmental issues." (Int 6) Such situation can be justified by several factors, as a long-time environmental activist, FENPROF member and CGTP senior staff clearly stated:

The first one is the salary factor. In Portugal salaries are still very low and unions are mostly fighting for salaries to be ameliorated. The second factor is mostly internal to unions; historically, in Portugal environmental matters have never been defined as priority. Even though there are a few people with the environmental sensitivity, the majority of leaders are not willing to act. I also think that could be related to the strict division of responsibilities at the social, political levels and so on. Political parties may be thinking that environmental matters are in the scope of unions, unions believing that it is in the scope of political parties, social and environmental movements, and seeing them as imposed from outside, when they are evoked. So, with this important division of responsibility in Portugal it is believed that unions have to concentrate only on work conditions, social issues have to be tackled by social movements and civil society organizations, and environmental issues by environmental NGOs among others. (Int 1)

Development, Consumers, Environment and Social Economy and two of its affiliate trade unions supports the climate jobs campaign. According to a long-time unionist and CGTP senior staff:

Support to the Campaign is more than the logo; we agreed to be a member of the support platform of the campaign "Empregos para o Clima." In this framework, we did more than giving a logo! We have recently contributed in the context of

the "quinzena de ação contra a precariedade" which was launched by Climáximo, with several activities of the CGTP and teachers' unions such as SPGNorte and SPGSul. We took advantage of several moments to defend the so-called "climate jobs" as an answer to unemployment. (Int 6)

Nevertheless, based on my observations, I argue that such support is still very limited with a lot of hesitant moves from trade unions. In fact, nobody from the confederation or any of its affiliate members has ever participated to the preparatory meetings or outdoor activities organized by the activist movement. Moreover, SPGNorte and SPGSul activities are mostly related to requested and received trainings from the movements, rather than real street demonstrations for example. The activist group always gives an account of the preparation of the campaign to the confederation, with the hope of gaining a support that could go beyond offering space for the launching of the campaign, or the offer to use its logo to gain more visibility and power. In the reality, the Portuguese campaign, so far, does not benefit from the strong support of trade unions as its sister campaigns from UK, South Africa, and France, among others.

• The Precários Inflexiveis (PI)

PI is a Portuguese non-profit association with a legal personality established for an indefinite period under the official denomination *Associação de Combate à Precariedade-Precários Inflexíveis*. The mission of the association, according to article 1 of its statutes is "the defense of the rights of all women workers and all men workers, in particular of all people subjected to any form of precarity and in unemployment situation." The association currently has 9 members working on a permanent basis as volunteers, and a great number of affiliates who support it and participate to its outdoors activities. They basically fight for the creation of decent jobs in Portugal.

Beside the outdoors activities, PI has a very strong Internet presence and do a lot of mobilizations via Facebook. For the past 8 years of existence, the group has been working on several issues, but never on environmental issues in general or climate change and its consequence on working condition and workers' health in particular. Instead, they do a lot of pressure on government concerning work conditions, mostly in relation to wages and precarious contracts, the abusive use of fellowships (falsas bolsas) to recruits permanent

⁵⁴ For further analysis, refer to Precarios Inflexiveis. "Estatutos Associação de combate à precariedade – Precários Inflexíveis." Available at

https://drive.google.com/file/d/0B4rUxvOVeEgxVzM0aTgyVHNKTG8/edit Retrieved on 16/02/2017

workers among others, including by the State and its agencies. According to a PI activist, "by engaging in the climate jobs campaign, PI will therefore have the opportunity to reflect and fight for works that equally have respect for the climate and the environment." (Int 5) Nevertheless, it is important to mention that this support comes mostly as a result of the influence of two members of the association who are also Climáximo activists.

• GAIA

GAIA (Grupo de Acção e Intervenção Ambiental or Environmental Action and Intervention Group) was founded in 1996 as a student movement dedicated exclusively to the defense of the environment. Nevertheless, after three years of activism in the university arena, the members of the group realized that what they were fighting for was quite important and politicized to be handled by a mere student association. In 2000 the movement was institutionalized as a youths' association, completely independent from the university settings. Since then, it has been active in several environmental domains such as climate change, globalization and its impacts on the environment, transgenic agriculture among others. In 2004 GAIA was legally registered as an environmental NGO in Portugal. It is important to mention that its particularity with regards to other NGOs is that it is non-partisan and non-hierarchical; it is involved at the same time in lobbying and streets activism, and functions in a very independent way. It operates at national and regional levels with centers in Porto, Alentejo and Lisbon.

After PI, GAIA appears to be the second most concerned with the campaign. In fact, beside participating directly to the outdoor activities of the campaign, it constantly offers its premises for meetings and popular dinners that are used by Climáximo not only for networking, but also to instigate discussions and gather funds for the functioning of the campaign. Moreover, GAIA made an official statement not only to express its support to the campaign, but also to invite other organizations and individuals to do so. In that statement, we can read the following:

We agree that action is urgently needed to halt climate change. We consider that the capitalist economic model is the main cause of the climate crisis. We know that the present struggle must be waged during our lives. Global warming presents the biggest challenge humanity has ever faced. To win a fight of this scale, we need nothing less than a mass movement. We consider that political intelligence is produced through action and interaction, not with books or articles. We know that the climate jobs campaign is not a recipe that would solve all our problems once we reach a consensus. Instead we see this campaign as an opportunity to listen to each other, to connect our struggles and build true

solidarity. Like all revolutions, the climate jobs campaign is a work in progress that needs the creativity and ability to collaborate with all people. (GAIA, 2016. Personal translation)

For GAIA, the campaign has to be considered in relation to other social struggles. By so doing, it raises the attention to what I consider to be the three important dimensions of the campaign, mostly: The verticality, the horizontality and the transversality. In its vertical dimension the campaign is addressed to decision-makers and aims at pushing them to take strong steps towards a JT to a low carbon economy. Its horizontal dimension includes involving all the other collective and individual social actors. As GAIA (2016) continues, "this implies empowering people and inviting them to engage in local action and to participate directly in decision-making processes". The inclusive approach advocated by GAIA in its official statement in support of the climate jobs campaign appears as an attempt to build a collaboration and collegiality that goes beyond the ideological, strategic and institutional differences of involved actors. In short, it is about bringing together actors of different origins under the same roof to build a collegiality for action, despites the difference original interests. Finally, when it comes to the transversality, as climate change is likely to impact all sectors, the search for solutions has to involve all sectors as well. In this regards, the transition to a low carbon economy cannot be limited to energy transition only, but has to involve transition in the transportation, education, agriculture, health systems, social security models, consumption patterns, world view and social justice among others. In other words, the climate justice activism has to be a cross-sectorial, inclusive and holistic struggle.

• Colectivo Clima

The birth of Colectivo Clima can be situated in the post-COP 21 context. In fact, among the Portuguese activists who participated in the Paris event, there were some who went from Porto, on an individual basis. Following the even, they felt the need of creating a movement to continue with the climate justice fight in Porto. Since the group needed a capacity building to be able to better implement its strategies, it invited Climáximo for a two days training from the 13th to the 14th of February 2016. During those training days, as described by a GAIA member and Climáximo activist, "several work sessions were organized to treat topics related to the evaluation of COP21, climate jobs campaign, climate change, and gas and oil extraction. Great importance was given to the climate jobs

campaign, since it is appealing to many people and can easily be used as a mobilizing discourse." (Int 3) At the end of the training, Climáximo and Colectivo Clima decided to "put in place a common medium for a long-term strategy with regards to the Portuguse climate jobs campaign, and many activists who participated to the Paris event also shared their Paris experiences in order to attrack new activists." (Folder 2, meeting notes)

Following that, a strong collaboration for the organization of the campaign started, under the coordination of Climáximo. Because of the small size and the young age of Colectivo Clima, Climáximo prepared all the materials, made all the negotiations for the official launching events (both in Porto and Lisbon) to be part of CGTP marches, and took almost all the necessary decisions following a couple of skype meetings and consultations via emails with the Porto's movement. Finally, as stated by a GAIA member and Climáximo activist, "Climáximo strongly relied on Colectivo Clima to launch the campaign in Porto." (Int 3)

3- The Portuguese climate job campaign: From germination to implementation

3.a- Emergence of the Portuguese climate jobs campaign

The emergence of the Portuguese climate jobs campaign dates back to October 15th 2015. In fact, on that day, the activist group Climáximo organized a dinner meeting with a discussion on the UK campaign with Jonathan Neale, editor of the *One Million Climate Jobs* (introductory book of the UK campaign) and *Global Climate Jobs* (report published in September 2015 to introduce the different climate jobs campaigns implemented around the world), and influential member of the UK campaign. Neale shared the experience of the UK campaign with Portuguese activists who were present. Two days later, a training session on building *bridges between climate and employment* was organized with Jonathan Neale, as a continuation of the dinner. After that training, Portuguese activists showed a great interest in having such campaign launched in their country. A debate was then organized on the topic *One million climate jobs: Two crises, one remedy* and the aim of the debate was to understand how Portugal could overcome the austerity politics and measures, and attain social justice while preserving the environment.

Following that event, the activist group started establishing contacts with other social movements, environmental movements, research institutions and trade unions among others, and to organize communication activities and conferences to talk about the campaign. These outdoor activities were carried out in parallel with negotiations with CGTP and the teachers' trade union of the Lisbon region, to be part of the march. As a Climáximo activist said:

That took months, and months, and months, of negotiations, thousands of phone calls and meetings with CGTP to be able to be in the main march [...], it is very hard to get there because it is very monolithic; you have to ask so many permissions. For example, we talk with CGTP, but we also talk with other organizations. We were close to SPGL, the teachers' Union and we had to ask them permission to be there, CGTP has to officially inform them that look these guys will be beside you in the march, and tell them who we are; otherwise we wouldn't have been able to be there. (Int 4)

Negotiating to be part of the march was essential, as the 1st May march in Portugal is dominated by workers' demands which, from my observations are mostly limited to wages, working hours, and to recalling the 25th of April revolution as a foundational moment for the political values of CGTP. In fact, all the messages displayed during the march were related to one of those three dimensions. That is why, to be part of the main march with a different message needed a special permission from CGTP (as the main organizer of the event), and from the teacher's trade unions of the Lisbon region (SPGL-Sindicate dos Profesores de Grande Lisboa) (Since the "out of context" message about climate jobs was to be displayed beside them during the march). Beside those continuous negotiations, the campaigners published an introductory booklet to present the campaign. Such booklet was prepared by Climáximo and PI, but obtained the endorsement of the other actors. On February 25th 2016, there was a public event organized to officially present the booklet to the public. That event was centered around the presentations of João Ferrão (former Secretary of State for Spatial Planning and Towns, Coordinator of the Environmental Working Group, Territory Planning and Society of the Institute of Social Sciences - University of Lisbon), Carla Prino (PI) and Filipe Carvalho (Climáximo). The second event that marked the preparation of the campaign was the toxic tour, organized on March 08th 2016. During this street activity, campaigners visited companies such as Partex, Repsol, Volkswagen, Barclays and Deutsche bank, and Gulbenkian foundation. Those companies where chosen either because of their oil exploitation activities (Partex and Repsol), their huge investments in oil exploration and mining around the world (Barclays and Deutsche bank), the greenwashing and funding of a number of research projects on the possibilities of marine resources commodification (Gulbenkian foundation). A public presentation on the environmentally dangerous activities of each of those entities was made and listeners asked for some clarifications (Folder 2).

Finally, the last important activity leading to the campaign was the first national encounter of climate justice movements. It is important to mention that in Portugal only two movements (Climáximo and Colectivo Clima) have a direct focus on climate justice. Nevertheless, the transversal activities and the networking between the two movements and with movements fighting in other sectors led to some sort of inflated understanding of the concept of climate justice. As such, this national meeting brought together not only climate justice movements, but also anti-extractivist and anti-transatlantic-trade movements among others. The objective of such encounter, as clarified by a Climáximo and PI activist in the April 06th 2016 online edition of the newspaper *Esquerda.net*, was

To create important bridges, to collectively discuss what strategy can be put in place in the fight for social justice and against climate change in Portugal. How to stop the exploration of fossil fuels in the country? How to prevent the entry into force of trade agreements such as TTIP or CETA that will open the door to environmental destruction and the worsening of climate change? [participants had] to work out concrete proposals for initiatives, actions, determine the timing for the actions and build a climate justice movement that answers the most pressing issues on climate change in Portugal. This event was one of the greatest steps towards the official launching of the campaign (Folder 1. Personal translation).

This activity took place in Lisbon from the 7th to the 8th of April, and laid the last milestones before to official launching of the campaign.

The official launching of the Portuguese climate jobs campaign, locally known as *Empregos para o clima*, took place on May 01st 2016, respectively in Lisbon and Porto. In these two cities, campaigners participated in the marches organized by the CGTP as part of the Labour Day celebrations. Beside the marches, another action worth noticing was the participation of Climáximo in a fair known as Prefest, organized by a consortium of social movements, to present the campaign to the public in Lisbon. In this research, I will only consider the activities that took place in Lisbon, and this choice is motivated by two main reasons: The first is that I participated in the Lisbon events both as researcher and activist, and could therefore directly witness what was happening and collect the data needed; secondly, all the preparations of the campaign were done in Lisbon by Climáximo, and I equally participated in those preparatory activities right from the beginning. The Porto

march was therefore just a simple replication of what was happening in Lisbon, and had been decided and designed by Climáximo in Lisbon.

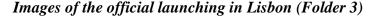
The Lisbon Labour Day march started at 2.30 PM. The point of departure was Martin Moniz, and the culmination point was Alameda. This event witnessed not only the involvement of thousands of participants from various trade unions, manifesting under the canopy of CGTP (in the main march), but also that of various anti-discrimination and migrant groups advocating labour inclusion and respect of labour rights in Portugal (in the alternative march). All the groups, despite their various origins and the multitude of messages visible on their banners and placards, were chanting "CGTP, unidade sindical", and were all bearing the Logo of CGPT on their manifestation visual materials. The only exceptions to this were the groups that formed part of the alternative march. In fact, it is important to mention that Labour's day marches in Lisbon and other major cities of Portugal are traditionally organized by CGTP as a dominant trade unions confederation. Only trade unions that are member of the confederation can participate to those marches, with their own visual materials always bearing the logo of the confederation. Nevertheless, there are other movements who participate in the celebration, but not under the leadership of CGTP such as trade unions that are not member of CGTP (for example the union of call-center workers in Lisbon), labour movements that by their very nature cannot be members of the confederation, even though they fight for better work conditions in the countries (such as PI), solidarity movement supporting the struggles of workers in other countries (such as the Lisbon-based sympathizers of the Movimento dos trabalhadores sem terra do brazil), a myriad of movements defending foreigners rights and better work conditions for them (such as SOS racism) and other social and environmental movements (such as GAIA and Climáximo). These second category of movements organized an alternative march, that followed immediately the main one led by CGTP. The participation to this alternative march is open to any organization, and is not subject to previous negotiations such as it is the case with the main march; Climáximo opted to participate to both marches, and was the only non-union and non-CGTP member in the main march.

The choice of May 1st to launch the campaign is not neutral. As we can read on the page of the activist group:

The launching also has a symbolic meaning. [...] The climate crisis is directly linked to the current socio-economic system, which also created and made us pay

for the economic crisis. This campaign proposes a solution to both social and climatic injustices at the same time. To succeed, this cause needs a strong participation of the working class. That's why we chose May 1st to launch the campaign. It is the first climate campaign to be launched in a working march (Climáximo, 2016. Personal translation)

Beside that symbolic meaning, there is also a strategic reason. In reality, the trade union environment in Portugal is dominated by CGTP. Even though, in principle, as clarified by a CGTP senior staff, unions that are members of the confederation are still "autonomous, and CGTP only coordinates their actions and acts as a bridge among them, not commanding them" (Int 7), the reality is quite different. For example, directives from the confederation are given a certain priority and importance within unions. When it comes to environmental matter, only CGTP has a department addressing them. That department constantly organizes trainings and sensitization activities for member unions. Equally, as another CGTP senior staff and long-time unionist pointed out, CGTP is "thinking of preparing a handbook on environmental protection for union members." (Int 6) As such, to the best of my understanding, there was no better way of trying to introduce the climate jobs agenda in the union preoccupations than passing through CGTP which has more facilities and possibilities of cultivating and pushing for the introduction of this agenda into the life and preoccupations of its members, contributing therefore to the creation of an environmental consciousness in Portuguese unions, and to the emergence of a certain trade union environmentalism in the country. That is why, even after the official launching of the campaign, Climáximo continues to rely on CGTP to easily reach out to unions.











3.b- Post May, 1st 2016: Between multifaceted activism and research

After the official launching of the campaign, a couple of activities have been carried out such as the two weeks long activities named playing with our lives. During those weeks, precisely from October, 24th to November, 06th 2016, CGTP, Climáximo, Coimbra em Transição, Colectivo Clima, Faro em Transição, Tavira em Transição, GAIA, Não aos tratados TTIP/CETA/TISA, Plataforma Algarve Livre de Petroleo and PI among others, organized a total of 15 activities such as streets demonstrations, debates, trainings, presentation of documentaries in Évora, Lisbon, Loulé, Peniche, Porto, Coimbra, Algarve and Tavira. Those activities were to demonstrate how fossil fuel corporations are playing with our lives and distracting us with green washing projects and mechanisms, while equally subjecting us to precarious and dangerous work, perennial unemployment, foreclosures and evictions cycles, exclusion and social immobility, and rampant inequality. The finality of those two weeks activities carried out under the canopy of the Portuguese climate jobs campaign, as mentioned on the information and invitation leaflet sent to participating partners by Climáximo, was to "draw people's attention and push them to involve in street actions for a social and environmental transition where they will be masters of the game and no more mere victims in the hands of the capital and corporations." (Folder 3. Personal translation) Beside this key event, another toxic tour was organized on July 01st 2016 and ended with the *red lines* demonstration in the headquarters of GALP in Lisbon. Moreover, campaigners participated to multiple local activities and streets demonstrations related to anti-extractive, anti-trade, immigrants' rights, public transportations among others. At the beginning of the year 2017, a second national climate justice encounter was organized to think the way forward as far as the struggles for climate jobs and against fuel exploration in Portugal is concerned.

Nevertheless, even though those activities are being carried out with some intensity, the main focus on the campaigners is on research and the production of a more comprehensive booklet for the campaign. The aim of such research and the expected outcome, even though according to a PI activist "it will be more politically oriented" (Int 5) is, following the declarations of a GAIA member and Climáximo activist

To have numbers about finances, numbers about emissions cuts, and numbers about jobs in Portugal. [...] One of the ideas of the editorial group is to produce short articles or essays along the road to reach out, like to explain some aspects of the campaign, but those will be like complementary works that is surrounding the scientific work. The end result will be numbers. The presentation of it can be more popular than an excel sheet, but at the end what we are looking for are solid numbers, rigid numbers, in somehow sophisticated language. (Int 3)

To obtain those numbers, the campaigners rely on the assistance of some activists, academics and unionists. The research, which is still ongoing, has nevertheless already produced some numbers in some key sectors requiring a transition to a low carbon mode of operation. To be considered a climate jobs according to the campaign's view, four conditions must be met. Basically they are to be

1) New jobs (not recycled and rebranded current existing jobs). 2) Jobs in the public sector. 3) Jobs with the objective of cutting GHG (securing transition from polluting sectors into clean and sustainable ones). 4) Jobs that guarantee the requalification of workers currently working in polluting sectors. (Eden, 2016)

The campaign estimates by creating 100.000 new jobs, Portugal can cut its GHG emissions by 60-70% in 15 years (Climáximo, 2017). So far, analyses have been done in sectors such as public transports, water, forestry and energy transition. Nevertheless, for the purpose of this work I will not take the water sector into consideration, because it does not contain numbers, and therefore does not give us any clear idea of how many jobs will be created in the sector, as it is the case in other sectors.

• Public transports sector

The transport sector in Portugal has a great GHG emissions impact. In fact, according to the last data available and which date from 2014, the national GHG emissions related to the transport sector equal to 64.6 MtCO₂e (Megatons of greenhouse gases equivalent to carbon dioxide) (Carvalho, 2017). Emissions associated with inland road transport alone are around 15.1 MtCO₂e (Pereira et al., 2016). According to the analysis

based on the 2014 data, we can see that by maintaining the proportion between emissions and the use of vehicles and considering the national emissions per capita in 2014, we take the total 64.6 MtCO₂e emitted in 2014, and divide them by the resident population in Portugal the same year, that is 10.37 million people. With this operation, we have an average of 6.23 tCO₂e per person. This brings us to the conclusion that an increase in the use of public transports will drastically reduce the inland road transportation related emissions (Carvalho, 2017). Or, as Carvalho continues his analysis, populations need to be encourage to use more public transports instead of private ones. Such encouragement passes through the reduction of tickets and passes prizes, and prizes reduction are conditioned by public investments to improve existing infrastructures and develop new ones. That is why, when it comes to this sector, the campaign advocates for public investments directed towards a better development of public transportation infrastructures, and the enhancement of mechanisms to encourage the use of public transports instead of individual ones. Unfortunately, current observations show exactly the opposite tendency. If we take the case of Carris (the public transportations operator for the city of Lisbon) for example, we will notice a reduction in its activity over the last few years (Farias et al., 2016) both in terms of supply (less vehicles in circulation) and demand (less and less passengers over the years). This is also reflected in the number of effective employees, which decreased from over 2800 in 2007 to 2000 employees 2015. With State's investment and restructuration of Carris alone, it is estimated that about 7100 effective workers are needed, that is 5100 new jobs compared to the current number (Carvalho, 2017). If we extend such estimates to the national public transportation system, we will have much more jobs created. More to that geographical limitation, I argue that the above used figures are even more questionable today. In fact, the automobile park of the country has been growing continuously over the last years. Statistics show that if we consider for example the months of January between 2013 and 2017, we can see that in 2013 a total of 8264 new cars were bought in Portugal. This number grew up to 10.916 in 2014, 14.165 in 2015, 16.480 in 2016 and 18.051 in 2017.⁵⁵ The logical consequence of this situation, from a climate perspective, is the increase of national GHG emissions, therefore rendering obsolete the 2014 estimates.

⁵⁵ For further analysis, refer to Associação Nacional das Empresas do Comércio e da Reparação Automóvel (ANECRA), available at http://www.anecra.pt/gabecono/pdf/graf1993.pdf Retrieved on 23/02/2017

• Forests sector

According to the 2015 Forests sector Characterization Report committed by the Associação para a Competitividade da Indústria da Fileira Florestal (AIFF), the Portuguese sector as a whole was employing 78.000 people in 2012. This figure was in total regression with regards to 2004 when the same sector was employing 101.000 people (AIFF, 2015). From the same report we can learn the sub-sector occupying the largest forest area includes the pulp and the paper industry, currently employing 10.600 people including direct and indirect employment. Beside the loss of employment, other problems of the national forest sector include fires, the conversion of complex forest areas into short rotation forest plantations, the reduction of natural forest area, the expansion of the planted area of eucalyptus, the forest property regime dominated by private owners and the low capacity of public intervention in public forest areas, the lack of income for small owners and abandonment, among others (Camargo, 2016). The Portuguese Association of Guards and Nature Rangers (Associação Portuguesa de Guardas e Vigilantes da Natureza or APGVN) better explains such abandonment. According to the association, there are currently 223 guards and nature rangers for existing protected areas (1 national park, 13 natural parks, 9 nature reserves, 7 protected landscapes, 5 natural monuments, 7 classified sites and 2 other non-classified areas). The number of guards is therefore clearly insufficient. For example, in "Douro Internacional", the second largest protected area in the country, there are only two guards for an extension of 122 kilometers of natural parkland in the border area (APGVN, 2016). It is estimated that for the current level of protected areas, there is a need of 500 more guards, and for an expanded public area, at least 2000 more guards and rangers would be needed (Carmargo, 2016). Beside this guarding activity, the proper management of national forests will require around 3000 new workers who will complete the forest registration in two years. At the end of that period, these people will be able to incorporate the privatized forests in the new management plan to be implemented by the public administration. A third line of action will be the reconstitution of the forest cover. As Carmargo continues:

The reduction of the (mainly disordered) eucalyptus area is central in a strategy to reduce fires and emissions by this means. The bet on various native species - oak, chestnut, cherry trees or cork oaks, among others - is a choice totally adequate to this objective, and also has positive secondary consequences for the supply of raw material for the domestic furniture industry. Encouraging these practices and species in public and publicly supported areas could create between

5000 and 10.000 direct jobs in forest production and management. (Camargo, 2016. Personal translation)

Finally, one of the important actions should be the reinforcement of the fight again forest fires. At this point it is important to mention, as Camargo does, that there are currently 6400 professional firefighters and a total of 42.5920 volunteer firefighters, who are primarily responsible for combating fires in general and forest fires in particular. In order to reinforce the national firefighting system and implement a year-round monitoring, medium and long-term projection, and prevention strategies, it would be necessary to double the number of professional firefighters. This requires approximately the creation of at least 6000 new jobs.

• Energy transition

It is important to mention that the energy used in Portugal is produced both from fossil fuel and renewable energies. If we consider the data from the International Energy Agency, we see that

Fossil fuels accounted for 74.3% of TPES [total primary energy supply] in 2014, including oil (45.1%), natural gas (16.4%) and coal (12.7%). Renewables accounted for 25.4%, including biofuels and waste 12.6%, hydro 6.4%, wind 4.9%, geothermal 0.8% and solar 0.6%. The remaining 0.4% was accounted for by net electricity imports. In the ten years to 2014, the use of oil and coal has contracted by 35.3% and 20.4%, while natural gas supply grew by 5%. Gas supply boomed in the ten years to 2010 when it peaked at 4.5 Mtoe (120% higher than in 2000). The boom in wind power has led to an increase in its share in TPES, up from less than 0.1% in 2004 to 4.9% in 2014 (International Energy Agency, 2016:17)

For Portugal to respect and meets its energy transition targets, or even go beyond to reach a full transition to a clean economy, it has to stop investing in dams and geothermal power plants; it has to invest in alternative energy production sources such as photovoltaic, solar thermal energy, onshore wind and ocean power. Following this multi-source transition approach, the campaign advocates for the production of nationally used energy as follow:

- 20.000 MW (Mega Watts) photovoltaic
- 1000 MW solar thermal energy
- 10.000 MW onshore wind
- 5700 MW offshore wind
- 2000 MW ocean power (waves and tides) (Eden, 2017).

The jobs created per sector will be as follow:

- The solar (photovoltaic) sector will need 24.000 new jobs for production and installation, and then 3000 jobs for maintenance
- The solar (thermal) sector will need 1000 new jobs for production, installation and maintenance
- The wind (onshore) sector will need 6000 new jobs for production and construction, and then 800 jobs for functioning and maintenance
- The wind (offshore) sector will need 7000 new jobs for production and construction, and then 320 jobs for functioning and maintenance
- The ocean power sector will need 1400 new jobs for production and construction, and then 300 jobs for functioning and maintenance.

With this, Portugal will be able to create approximately 45.000 jobs annually in the renewable energies industry over 15 years. These jobs will mostly be related to the production, installation, functioning and maintenance of the new infrastructures.

Concluding remarks:

At the time when the theaters of international negotiations ended their play in Paris, for the climate justice activists, as the Climáximo and PI activist stated, there was

No doubt that the solution was, as it has always been, dependent on our action. Halting fossil fuels, moving to renewables at full speed, preparing territories and populations, demystifying international trade, preparing new and better production, rethinking our relationship with the planet and with each other became more urgent. (Int 2)

It is based on such conviction that the Portugal-based activists, following the steps initiated in UK and enhanced in South Africa, decided to launch the climate jobs campaign in the country. Unlike the UK campaign that was initiated by trade union members, or the South African campaign that was initiated by AIDC, but highly endorsed by trade unions, the Portuguese campaign then came as a result of the efforts of young activists who participated to COP 21, and is still having a quite limited support from trade unions. The campaign aims at building a strong climate justice consciousness in the country where the environmental/climate justice consciousness is still very limited among unions, and whereby environmental mobilizations have historically been very much fragmented and

localized in the communities where environmentally dangerous projects/activities take place (Figueiredo et al., 2006). Instead of a structured and organized movement, the Portuguese environmentalism, as a grassroots resistance, is "the result of a myriad of noninstitutionalised grassroots resistance actions targeting 'powerful groups in a very direct and confrontational manner about serious problems which have immediate effects on their communities'." (Kousis, 1999. Quoted in Barca and Delicado, 2016:502-503) Going further in their analysis and considering Greece, Spain and Portugal from a comparative perspective, Barca and Delicado conclude that "evidence from all three countries showed that 'when links are made from the local to the global, and vice-versa, then there is more hope for effective environmental protection'." (Figueiredo et al., 2002. Quoted in Barca and Delicado, 2016:503) To address the challenges of such articulation and maximize their chances of success, Portuguese campaigners opted for a strategy that conflated the concept of climate justice to include other social justice struggles. They did not limit their claims to the moral/ethical ideal of justice, but linked them to material demands such as the creation of sustainable and decent jobs, and the abandonment of fossil fuel exploitation among others. They also went beyond their group interests and ideology to reach out to other movements, in order to build a strong inclusive network able to defend the environment from a holistic perspective and to effectively fight for a system change. Their attempts towards building social cohesion around labour, social and climate justice, even though they are still in initial stages, already give a possibility for evaluation.

CHAPTER THREE

PORTUGUESE "JOBS FOR THE CLIMATE" CAMPAIGN: OPPORTUNITIES AND CHALLENGES



The Portuguese *jobs for climate* campaign that I presented in the previous chapter, even though it is still relatively new, can already give room to an evaluation. For such evaluation to be properly done, I focus on two dimensions in this chapter. The first moment is dedicated to the lessons that can already be drawn from the preparation and implementation of the campaign, and the second analyzes the challenges that the campaign will have to address to secure its survival and ameliorate its future development.

1- Learning from the Portuguese campaign

1.a- Building a social alliance for the climate jobs creation in Portugal

In this section, I analyze the contribution of the Portuguese campaign in light of the four basic elements, namely its efforts in bringing together organizations of various backgrounds, building bridges for the alliance of diverse and even divergent interests, building an integral environmentalism and creating a sense of self-identification with nature.

> Strategic networking: Building a social collegiality for environmental unionism

Strategic networking is fundamental for the success of social movements' activities. In fact, networking allows social movements to create and manage relationships that render them more effective. Networking involves considering the place and role of each member within the group, taking into consideration power relations, as well as the strategies and expectations of each members of the group in the achievement of the common goal (Buyse, 2003). In the current configuration of global climate governance dominated by the market and the exclusive leadership of State actors, strategic networking appears to be more than ever necessary for the survival and influential role of climate non-sovereign actors in general, and labour and climate justice movements in particular, in pushing the transition towards a low carbon economy. It is only by building more strategic alliances that they are capable of influencing the outcomes of the negotiations and forcing States to go in the desired direction. In this context, the term 'network' is used to "describe clusters of different kinds of actors who are linked together in political, social or economic life. Networks may be loosely structured but still capable of spreading information or engaging in collective action." (Paterson, 2003:1) Those networks are the result of a more or less stable and non-hierarchical cooperation among Organizations that know and recognize themselves, negotiate, exchange resources and can exchange norms and interests (Le Galès and Thatcher, 1995). Within the network acting parties or groups have "the capacity to bargain over policy designs and details and therefore to determine the success or failures of public policies in a given sector." (Peterson and Bomberg, 1999:8) So, in any action with a social, economic or political goal, the structure of networks operating in the policy sector determines, explains and predicts the outcomes (Paterson, 2003).

It is conscious of the importance of networks that Portuguese climate jobs campaigners, right from the beginning gave an important place to the building and use of strategic networking. Campaigners believe that the government may listen to the demands of civil society, but at the same time it is currently trapped by corporations and market forces that limit its action toward energy transition. That is why it is important to build an opposing force, made up of a network of all social actors, to push governments to act in the right direction. Following this, in the Australian context for example many labour unions have embraced the concept of SMU that links the labour movement into broader political coalitions on issues of public concern. SMU engages unions in issues beyond the

workplace, organizing union members to work with other civil society organisations to support each other in what are seen as mutually beneficial goals (Brofenbrenner and Juravich, 1998; Reiss, 2005; Tattersall, 2005). In fact, a JT process targeting global warming offers scope for transforming the traditional agenda of labour movements and unions, bringing them to collaborate with environmental Organisations, communities and other civil society Organizations in campaigns that link workplaces and communities into collective social action on issues of ecological sustainability and related social development (United Nations Environment Program et al, 2007).

In the specific context on Portugal where trade unions do not have the tradition of fighting for environmental issues, and are not yet really involved in the climate justice fight, the activist group Climáximo took the initiative of building a network of climate justice defense movements around the climate jobs campaign. This, as a Climáximo and PI activist stated, because "the climate jobs campaign [...] can be easily explained and easily understood, and it brings new sets of alliances and new possibilities of alliances, and it is going to be the biggest environmental issue in Portugal since the 70s." (Int 2) In order to tackle that issue, Portugal-based climate justice activists are struggling to build a strong inclusive network that goes beyond the individual interest of various social actors and movements. As such, they have approached and are collaborating with various trade unions, immigration movements, anti-trade movements, anti-extractives and faith-based associations among others. Nevertheless, in their networking efforts, the activist movement is selective, and often avoids having close ties with fossil fuel corporations and any Organization with positions that campaigners consider doubtful. As the PI activist I discussed with puts it, when I tried to understand the limited relation with Quercus, which is one of the biggest national environmental NGOs in the country:

Quercus has a lot of things and issues behind that we do not understand. We think they have funding from Gulbenkian, and we all know the role of Gulbenkian in oil exploration and exploitation. And we also have different points of view in a lot of things. Last time we invited them, nevertheless, to participate to some of our activities. That also goes with most environmental movements which, like them, have links with corporations and governments, and that does not give them the freedom to do certain thing as freely as we do. [...] We avoid collaborating with Organizations that have link with the fossil fuel industry or with the government because we want to keep our freedom. (Int 5)

Such strategic networking efforts are not limited to the country. In fact, as a GAIA member and Climáximo activist said: "by February 2015 we were the only contact for

Climate Coalition in Portugal, we were the only contact for climate space, and we were already in contact with other groups like Climate Justice Action. [...] So, we started with a very strong international networking." (Int 3) To be internationally recognized and gain support from international partners as well, campaigners often participate to international climate justice actions, and also invite international activists to participate to their events and share their experiences.

> Climate jobs at the intersection of climate and social justice: Towards a communion of interests

Combining struggles against social injustice with climate justice claims is one of the most important self-assigned missions of the campaign. In fact, for campaigners we are victims of both crises that are directly linked to the current socio-economic system. That is why the "campaign proposes a solution to face both social and climatic injustices at the same time. To succeed, this cause needs a strong participation of the working class." The solution proposed is the imbrication of the two basic demands, namely the protection of the environment, so that we can bequeath a livable environment to future generations (Pope Francis, 2015) in the first place and, in the second place the demands for the creation of concrete climate jobs, with better conditions and wages, and respecting the condition of social justice. In fact, the decision to launch the campaign in Portugal was taken after evaluation of other options, and the main reason behind the choice was its transversality and the potential it has to integrate the interests of other struggles. As a GAIA member and Climáximo activist put it:

We had four options. One of them was about public transports in several dimensions; there is a "Back on Track" campaign for the Europe trains which is a European level campaign. So, based on that, here in Lisbon public transports is a big issue, so that was one. Another one was some kind of anti-extractive campaign. The third one was divestment and the last one was climate jobs. So, we had those four options and had to move on and make a choice. [...] We basically put in front of us the advantages and disadvantages of each, the opportunities that they will create and the risks they will face. I think the feeling was that the public transports campaign was not a climate campaign, and it will be hard to articulate the divestment campaign. It is very difficult when you don't have public funds anywhere. Concerning the anti-extractive campaign, we will feel relatively alone if we were to launch it in June 2016, because basically there was no one talking about these things back then, or just very small groups. The involvement in the anti-extraction is very recent. Also because we are in Lisbon,

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^{56 &}lt;a href="https://climaximo.wordpress.com/2016/05/02/lancamento-da-campanha-empregos-para-o-clima/">https://climaximo.wordpress.com/2016/05/02/lancamento-da-campanha-empregos-para-o-clima/
Retrieved on 26/12/2016

we are not the frontline communities; what are we talking about when we refer to extraction that is taking place 700 km away, if we are not going to make fieldwork? What could we do? So, that was it. And with the climate jobs campaign, the stronger argument was that it will be transversal enough compared to all the other three options. So, it will be big enough in narrative, it would allow us to say a bunch of stuff to a bunch of different people, and I think not necessarily for me but for all the Portuguese climate justice activists. I think it is very important to reach out to ordinary people. In Portugal, all the activists you will talk to, will say we should use the language of the ordinary people, we should try to reach out. I guess that the climate jobs campaign is the best way to do that. (Int 3)

So, for climate justice to become real in Portugal, it was important to relate it to social justice ideals. Since

The fight against injustices (precarious works, social inequalities, jobs scarcity, exploitation of poor people's ecosystems, petrol exploration among others) will lead to better respect of the environment and limitation in GHG emissions in the country, we decided that the climate jobs campaign should focus on the idea of social justice. (Folder 3, meeting notes)

Tackling climate from the perspective of social justice is important because, as a Climáximo activist says

Climate has to do with food production, it has to do with water, it has to do with temperatures, and if temperatures rise above a certain degree we will not be able to have agriculture anywhere in the world, we will start having wars everywhere in the world and that is a catastrophic situation. [...] Obviously, I worry about issues of poverty, overconsumption, inequalities, but all of them are related to climate; So, if we don't solve the climate issue, things are going to get worse. It is the physical background where we live, it is our home. I mean, the planet is very small and we have to take care of it. (Int 4)

The focus on social justice issues had the strategic aim of building a stronger coalition for the campaign. Campaigners, while involving or officially supporting the struggles of other social movements, believe that by doing so, they will gain more visibility and more sympathizers for their own struggle. The example of the involvement of the group in the anti-extractive struggles in the Algarve, better support this vision, as a GAIA member and Climáximo activist states:

Now people are not fighting for the exploration to stop only in Algarve, but everywhere in Portugal and beyond Portugal. That is already a good move and we, as Climáximo can count on that to have more people understanding and more people joining the campaign, more people to say stop exploration and invest the money in solar or wind energy instead of coal. So, from our direct involvement in the fight against exploration in the Algarve and other localities, we will gain more visibility and more people to make the climate job campaign a big and national issue. (Int 3)

Anti-extractive struggles in the Algarve are obviously not only because of environmental or climate reasons, but also and above all because of economic reasons.

Populations are basically fighting for the survival of tourism, giving its importance for the local economy. In fact, as a Climáximo activist mentioned "if tourism was not as important in the Algarve as it is, people who are protesting wouldn't have easily had the support of Mayors and local government. At this moment, local government officials are unanimously against oil exploration." (Int 4) Even being aware of that underlying reason supporting the anti-extractive struggles, Climáximo still supports and get involved in them, mostly because they have the potential of bringing in more sympathizer and better articulating social and environmental issues in a single fight.

> From "climate vs jobs" to "climate and jobs": Building an integral environmentalism

The opposition between jobs creation and environmental protection is among the first challenges that the Portuguese climate jobs campaign is addressing at the national level. In fact, even though the trade unionists I interviewed all claimed not being aware of any situation of job blackmail in Portugal as companies' strategy not to take environmental protection measures, they nevertheless acknowledged the low environmental consciousness among workers and unions. Moreover, the idea according to which the protection of the environment (as advocated by the campaign) will lead to uncompensated job losses is still dominant among unions. For example, even though the teachers' union SPGL (Sindicato dos Profesores de Grande Lisboa) officially supports the campaign, during one of the meetings with their representatives, I could assess the level of internal divisions this support generated. Literally, on this matter union members are divided into two groups. Those who think priority should be given to the protection of the environment, and those who believe the union should not support the campaign or involve in other antiextractive and anti-exploration campaign. For this second group, there is a belief that their "parents, relatives and friends who work in those sectors will be victims of the transition and there will surely be no concrete measures to address their situations." (Folder 2, meeting notes) A similar position was expressed during the second national climate justice meeting, when one of the representatives of CGTP declared:

We are all here struggling for climate justice and for climate jobs. We are all demanding divestment from fossil fuels and investment in clean energy and we are all convinced that this is the way to go. Nonetheless, I would like to point out that we, as a trade union confederation have some characteristics that none of the movements in the hall has. We must defend the environment, yes! But we also

have to defend workers and their jobs, and that is where it becomes complex for us. If a company asks us whether to divest from fossil fuels and stops it activities, for all of you the choice will be obvious. For us that will not be so easy to decide and to reply. (Folder 2)

These statements show the dilemma faced by unions and workers in Portugal when it comes to choosing between the environment and their jobs. Faced with this situation and with the low environmental consciousness both among unions and workers, Portuguese climate jobs campaigners are determined and have been organizing trainings with unions to sensitize them on the link between environmental protection and jobs creation. Such activities do not only aim at gaining popular support from unions, but above all, as a Climáximo activist stated, because

People from the Labor movement have to understand that ecology does not put their jobs at risk; it is actually a jobs creation opportunity. For example, renewable energies produce much more jobs than fossil fuels. There has always been this debate of choosing between preserving jobs and the protection of the environment; the climate jobs campaign is actually about choosing both. If you have environmentally sound strategies, they will be much better for our economy in the long term and results in a lot of jobs creation (Int 4)

In fact, the very nature of climate jobs campaigns in general, and the Portuguese campaign in particular, is to demonstrate that it is possible and to encourage to tackle the climate and the jobs crisis from a synergetic perspective. They go from the point of view according to which the protection of the environment does not automatically threaten jobs as it has historically been believed. On the contrary, faced with the double challenge of joblessness and climate crisis, we have no other option than capitalizing on JT to a low carbon economy by creating clean, decent and sustainable jobs. All the research and the analysis done by the Portuguese campaign till date, just like the other climate campaigns, point to both the associated environmental benefits in terms of emissions reduction, and the related job benefits in terms of numbers of new jobs to be created in the context of JT. Obviously, the transition will not only result in jobs creation, but it will also lead to jobs loss. But the balance will be positive in many sectors, as Casula rightly puts it, in the transition context

New qualifications are required. Some professions will disappear, others will have to adapt to new skills. Training organizations have a large market to qualify or requalify workers in the traditional areas of manufacturing, transportation, construction, insulation materials production, individual energy production, computer and digital responses. In the environmental areas: biology; environmental engineering; Sociology and psychology of the environment; Sanitation, waste selection and recycling; Eco-composting; Eco-design; Energy planning; Environmental advocacy; Environmental health; Information and

research; Environmental tourism; Agriculture and forest preservation; Gardening and organic cooking.... Etc (Casula, 2016:8)

For the transition to be operationalized, new jobs will be required among others in the sectors mentioned by Casula. That is why, it is important to invest not only on research and development of alternative clean energies, the building and maintenance of the required infrastructures needed in the new clean economy, the new systems of energy and resources management, but also and above all investments should be done on qualification and re-qualifications, in order to prepare for a smooth JT. By advocating for that integral approach, and through its ongoing analysis of sectorial jobs opportunities to be created in the transition context, the climate jobs campaign demonstrates that environmental protection and jobs creation are not antithetic, but should be tackled in a synergetic and integral way.

> Saving nature, saving ourselves: Towards a nature self-identification

One of the most important aspects that singles out the Portuguese campaign with regards to other climate jobs campaigns, mostly the UK and that of South Africa, is the perception campaigners have of the beneficiaries of their actions. In fact, according to them, the first and final beneficiary of the climate fight is not nature, but humans. using the words of Pope Francis to qualify their struggles, we can say that they are "guided by that awareness of our responsibility that must drive each one of us to promote seriously a 'culture of care which permeates all society', care in relation to creation, but also for our neighbour, near or far in space and time." (Pope Francis, 2016) The struggle for the protection of the environment is therefore nothing else than the struggle for our own survival and that of future generations. Nature does not need human protection. Nature has the capacity, an unmeasurable capacity of resilience that makes it adapt to new conditions after every great climatic variation as the history of the universe demonstrates. The concern today is related to the living conditions on earth and not necessarily to the survival of nature. In fact, with the enhancement of the climate crisis, we may reach a situation in which human, plant and animal life will be very complicated or even impossible on earth, but that will neither affect the very existence of the earth nor its adaptability or resilience capacities. It is in this sense that the climate justice activism perspective endorsed by the Portuguese campaign goes beyond the mere defense of nature as an externality to include the self-identification of humans with nature being defended. Statements campaigners use

such as "we are not defending nature, we are nature defending itself", "we are nature in self-defense" better translate their attachment to the principle of self-identification with nature in the context of climate justice struggles. In fact, for the campaign, when we speak of saving nature, the reality is that we want to save ourselves; it is our survival which is here at stake, and not that of nature. As one activist participating in the second climate justice encounter said, "nature has always witnessed hot and cold periods leading to the disappearance of specific species, but nature has never been destroyed because of those climate fluctuations." (Folder 2, personal record) The self-identification with nature, I argue, has the potential of giving a certain utilitarian value to the campaign, and rendering it more understandable and acceptable. In fact, if climate justice limits itself to the saving nature discourse without attaching any human dimension to the fight, their struggles will seem very distant from the daily struggles of humanity and will probably attract less people. On the contrary, by building its discourse around the salvation of humans, the campaign can attract more sympathizers and broaden its scope of action. It is therefore with the conviction that by saving nature we will save ourselves that the Portuguese climate jobs campaign was launched, and that is one of the key messages it continuously spread during all its outdoor activities.

1.b- Climate education, environmental consciousness and activism

All the people I interviewed agreed on one thing; the climate consciousness is very low in Portugal. This point of view is confirmed by the Portuguese National Program for Climate Change (Programa Nacional para as Alterações Climáticas) which states that:

Climate change is still poorly understood by most of the people to whom the problem seems distant. Climate remains an issue on the political agenda, too institutional and not very close to the citizens. [...] [It is important] to empower society and create competences that would be associated with the creation of green job, guide individual behaviors for an efficient resources management and low carbon decisions, promote the active involvement of the society in this transition, support the dissemination of good practices and participate in networks for the exchange of experiences. (Programa Nacional para as Alterações Climáticas, 2015c:6-7. Personal translation)

The empowerment activities mentioned by the National Program for Climate Change aim at building the national climate consciousness in a country that historically has a very low and almost inexistent climate struggles tradition. In his letter to the participants to COP22, Pope Francis invites to take into consideration the educational and cultural

challenges that parties and other social actors have to address if they want their climate struggles to be effective. For the Pope,

Here we enter into the fundamental fields of education and the promotion of lifestyles that favour sustainable models of production and consumption; and we are reminded of the need to promote the growth of a responsible awareness of our common home. In this task, all the States parties are called to give their contribution, along with the non-party stakeholders: civil society, the private sector, the scientific world, financial institutions, sub-national authorities, local communities, Indigenous populations. (Pope Francis, 2016)

Considering the importance of education for the development of a climate justice consciousness in Portugal, Climáximo organized several training and education activities not only with unions, but also with the public both before and after the official launching of the campaign. As such, beside its traditional open trainings, the activist group had formations on climate science and climate activism with the teachers' unions of the regions of Lisbon and of the North, organized some formation activities in secondary schools and with other activist groups who solicited such trainings. This is not only limited to Lisbon and Porto, but also in other cities as well. They often organize street activities directed towards popular sensitization in Lisbon and other cities of the country. They also organize a film series on climate called Cineclima, of which the first sessions took place between May and June 2016. This series of movies on climate change are mostly organized in Lisbon in some cafés or activists' meeting venues. During those movies sessions, the presentation of documentaries is followed by debates. The aim of this activity is to create more popular awareness on the effects of climate change. The film events are previously advertised on Facebook and are often open to everybody. Obviously, they often attract more people. But it is worth noticing that they are mostly followed by Climáximo members and some university students around Lisbon who are interested in climate issues.

Such training and education activities have started having an impact in the country, from a double perspective. In the first perspective, at the level of unions, the group has succeeded in awaking a certain level of environmental consciousness. CGTP and several teachers' unions are more and more inviting the activist group to come and train them on climate science and global warming. For unions this will be useful not only in giving them an environmental background, but also and above all in supporting their environmental related struggles and possibly contributing toward building some sort of SMU in the country. In fact, the objective of those unions is to constitute a strong political power. In order to meet those objectives, they engage into alliances with other social actors, co-

organize or carry out campaigns that go beyond the mere interest of workers and include the interests of other community and social partners, participate to collective in negotiation and lobbying structures or use "other collective sources of power, including strikes, consumer boycotts and inter-national solidarity, in order to gain access to new policy arenas." (McGuire and Scherrer, 2010:8)

In this regards, increasing their understanding of environmental/climate issues is of relevant importance both for CGTP and teachers' unions at this moment in Portugal. At the level of CGTP one of the missions of the department of sustainable development is to prepare the official positions of the confederation on environmental and climate issues, represent the confederation in national and international fora dedicated to such issues, and work towards the development of an environmental consciousness through training and formation of its members. To accomplish such mission, the confederation has to first increase its own understanding of the matter. For this, it is more and more relying on Climáximo for that. On the other hand, as far as teachers' unions are concerned, it is important to mention that in early 2017, Portugal launched national consultations for the inclusion of environmental education in school curricula. Both in such public consultations and in the subsequent elaboration of the environmental program, teachers' unions are expected to play a key role. That is why they are more and more looking forward to enhance their understanding of environmental issues in general and climate issues in particular. This desire to know more about those matters is visible through their increasing solicitation of Climáximo to give them trainings. They often request that the trainers should have at least a Master degree, and that certificates should be issued to participants (Folder 2). Those two requirements are not neutral, as they give a certain caution to the formation received from people who are acknowledged as master of their domains, and participant can use them to broaden their career perspectives once environmental programs are introduced in schools' curricula. Such environmental education, it should be noted, has a triple objective, namely: (1) Fostering a deeper awareness of the links between economic, social, political and ecological concerns both in urban and rural settings; (2) contributing to the development of knowledge, values, attitudes, commitment and skills needed for the protection of the environment in every citizen; (3) creating new environmentally-sensitive social and individual behavior patterns (Schmidt et al., 2011). The environmental/climate consciousness developed through such transformative education will participate in the

building of a more active and participatory citizenship in the country. In fact, it is important to mention that "in Portugal, participation and deliberative processes have not been mainstream in political arenas, and adaptation planning activities are mostly characterized as managerial and top-down processes." (Campos et al., 2016:2) In an analysis of public participation to decision-making processes in the climate change context, Schmidt et al., (2012) basing their study on three coastal areas, namely Vagueira, (in the region of Aveiro), Costa da Caparica (in the Metropolitan Area of Lisbon), and Quarteira (on the south coast of the Algarve) conclude that there is in general a very weak tradition of public participation in decision-making processes in the country. In these three specific cases, municipalities concerned mostly relate the lack of participation to the limited information and formation of the population on climate and environmental matters, while on their own side populations accuse political leaders and local governments of not putting in place right and suitable participatory mechanisms. As such, even though political recommendations resulting from participatory processes (mostly from participatoryresearch activities) may be difficult to integrate in political arenas because of conventional and mainstream decision-making processes that are essentially centralized and top-down (Carvalho-Ribeiro et al. 2010; Schmidt et al., 2014; Campos et al., 2016), I nevertheless argue that enhancing population's environmental consciousness through proper environmental/climate information and formation will lead to better involvement either from within through enhanced participation to decision-making processes or from outside through greater climate/environmental activism.

The second aim is about the development of the climate justice activism culture in Portugal. According to the words of the Third World Forum, "without the transformation of people into protagonists of their history, the problems of the people -health, food, education, housing [....] cannot be solved." (2006) Or, for such revolutionary transformation to become real, "education should thus be considered the first stage of resistance when the privileged are unaware of the injustice and unfairness of the scheme. In those cases, it is essential to raise consciousness of the hidden mechanisms of oppression in order to undermine future oppression." (Delmas, 2014:481) In fact, resistance plays a critical role in highlighting the wrongfulness of a scheme and system of entitlements. As Delmas continues,

By engaging in campaigns of resistance – for instance, joining demonstrations, boycotts, walk-outs, or sit-ins – the agent communicates his or her disavowal of the scheme's values and rules, draws attention to the structural issues, and conveys the urgent need for a radical reform. Acts of resistance are further critical to actually instigating reform. [....] History suggests, and social scientists have recently demonstrated, that 'civil resistance works', and that campaigns of nonviolent resistance are often successful in overcoming regimes' tendency to status quo and ushering peaceful democracies (Delmas, 2014:482)

The Portuguese climate jobs campaign is of relevance in demonstrating the relation between education and resistance or activism. In fact, through its various opened formations, debates and movie series followed with debates among others, campaigners gained more sympathizers. During the various street activities to which I participated, I often discussed with new participants and inquired how they knew about the events. In most cases, they had previously participated to one or more training activities of the activist groups on climate science, climate activism or oil exploration in Portugal. They always claimed they were now more aware of the gravity of the situation and wanted to act to prevent the worst from happening. Even though most of those sympathizers do not participate in the meetings of the activist group, they do participate to its street activities whenever possible. Climáximo is relatively small as a group, but this does not transpire during streets demonstrations. Demonstrations always bring together hundreds of people and this is partly because of the underlying trainings that have created a certain consciousness of climate justice issues in the country and that is motivating people in joining the streets activities of the activist group, even though they are not formally members of the group. In the same line, other social movements, such as Peniche Livre de Petroleo for example, have also started inviting Climáximo to come and launch the climate jobs campaign in their city.

1.c- Science at the service of environmental decision-making processes

The need for the production of a useful science able to guide decision-makers towards taking more informed decisions in environmental matters in general and climate change and jobs creation in particular is becoming a pressing issue. Many environmental research organizations aim at producing knowledge that can be used by policy makers, as the growing number of briefs produced as policies oriented results of research can easily demonstrate. The objective of the research carried out by the Portuguese campaign can be situated in this logic.

In fact, one of the most important aspects of the Portuguese campaign is to carry out a research which is at the same time scientifically viable, and politically and socially useful. The aim of the research currently underway is to have concrete numbers about emissions cut and jobs creation, that can be presented in a simple and understandable ways for the general population and for decision-makers. As a PI activist states, campaigners "are trying to have more inputs from scientists, and they will help with concrete numbers of emissions cuts and numbers of jobs. That will give more scientific credibility, but the idea was to have a more political oriented booklet." (Int 5)

Campaigners aim at meeting three fundamental objectives: 1) To provide data that are relevant for tackling synergistically the climate and jobs crises; 2) to mobilizes all the categories of social actors; and 3) to put in place mechanisms to influence decision-makers through popular mobilizations. This triple dimension of the activities of the campaign makes it a good example that needs to be further developed, adapted and implemented in other contexts characterized by jobs scarcity and great vulnerability to climate change. This national scale activism, according to an expression so dear to Boaventura de Souza Santos, is an example of *alternative thinking of alternatives* (Santos, 2013) in a context where the dominant capitalist market models and the State-centered international alternatives seem to hinder all the other options. And as Juliane Schumacher reiterates,

In times like these, when the capitalist model has lost credibility but where many people lack the perspective and hope they need to believe that other 'possible worlds' might exist, the issue of climate change offer the chance to shift the focus to alternatives to the current system, as well as the opportunity to discuss these alternatives and to put them to the test. (Schumacher, 2015:22)

In that line, beside presenting the environmental crisis in general and climate crisis in particular as a direct result of the current capitalist model of production and consumption, the JT project endorsed by the Portuguese climate jobs campaign discusses and recommends an alternative path for clean and just development, even though as Wallis suggests, the climate crisis is still not yet unanimously recognized as a capitalist crisis, that is, a crisis arising from and perpetuated by the rule of capital, and hence incapable of resolution within the capitalist framework (Wallis, 2010). Conscious of the need of creating such alternative to the current destructive capitalist model that has led us to global warming and that continues to prevent the conception and implementation of suitable global responses to climate change through its important lobbying against energy transition and through it powerful climate disinformation, the Portuguese campaign brings an

alternative in terms of production of consensual, multi-dimensional, multi-actors and multi-sectorial useful science with quantified outcomes in terms of jobs creation and emissions reductions. This research is particularly important in the Portuguese context where, for workers and their unions, the balance between jobs conservation (even those dangerous for the environment and for their health) and environment protection weights in favor of the first. In fact, as a long-time unionist and CGTP senior staff stated

[An important] factor is that related with the balance between environmental issue and job losses issues. When you put them on the same scale it becomes quite complicated, and unions have quite an ambiguous position with regards to that. For example, when the unions are faced with the equation between environmental protection and jobs losses, they find it very difficult to take position. If we ask polluting companies to close or to invest in depolluting activities, they will tell us that in order to do it, they have either to reduce the wages or to reduce the number of workers. Faced with such dilemma, it is complicated for unions to defend the environment while workers are losing their jobs or salaries. (Int 6)

The declaration of this long-time trade unionist and CGTP senior staff contrast that of his colleagues that I mention in the previous chapter and who denied the existence of jobs blackmail in Portugal. Such contradiction among high-profile unionists and CGTP members can be explained by the less importance that the confederation officially attached to environmental matters. In fact, as we saw earlier the involvement of the confederation in environmental matters comes as result of personal engagement of some members, rather than from an institutional dynamic. From this perspective, it is normal that different protagonists express point of views drawn from their personal experience rather than from any official position. In other world, this contradiction might just be related to the different personal experiences lived by the different protagonists I interviewed, since the confederation traditionally has never involved in environmental matters to properly investigate if there was jobs blackmail or not.

Nevertheless it should be noted that, in the current context dominated by the climate and employment crises, according to the "dominant administrative rationality [...] climate change has often been represented as solvable by State- and expert-led- policies. Economic rationality, i.e., markets solutions as the answer to climate change, has also figured predominantly, together with ecological modernization." (Carvalho et el., 2014:210) Going further, the authors acknowledge that such dominant State-led, market-oriented and eco-modernization rationalities go beyond the politico-administrative realms; in Portugal, "Sustainable development and ecological modernization have also been

dominant in the discourses of a variety of social actors who speak on climate change." (Idem.) In other words, the Portuguese hegemonic socio-political rationality stresses on solutions that have been proven ineffective by more the experience of more than two decades of State-led global climate policies under the Kyoto regime. To counteract such hegemonic tendency, it is important to present alternative proposals. The climate jobs campaign appears therefore as a counter-hegemonic proposal to tackle the climate and unemployment crises in a synergetic way, based on real and not on false-solutions. Such campaign, through its sectorial research does not only declare that jobs should be created, but show how they should be created and maintained; alternatives that do not only state that JT should initiated, but show how it should be initiated. The research already carried out and those underway are therefore of great relevance in this perspective.

2- Challenges for the Portuguese campaign

2.a- Redefining the concept of "climate jobs" in Portugal

The first and most important challenge that has to be addressed by the *empregos* para o clima campaign is the very conception of climate jobs. When asked about the choice of climate jobs terminology, one of the leaders of the campaign, GAIA member and Climáximo activist replied that "the most important thing to ask is about who is the engine of the jobs [...] because whatever you call the jobs, if they are within the market, there is no practical, real life transition from the fossil fuel economy that we can achieve within the green market, not even the green economy." (Int 3) This is an issue that, from my own observation appears to be at the root of an important misunderstanding between Climáximo and CGTP. In fact, campaigners are using the concept of climate jobs, whereas CGTP prefers to user the green jobs terminology.

This conceptual issue will need to be addressed and the content of jobs defended by the campaign renegotiated. In fact, for the campaigners, and following the climate jobs campaigns tradition

"Climate jobs are jobs that cut down the amount of greenhouse gases we put in the air and thus slow down climate change. 'Green jobs' can mean anything – jobs in the water industry, national parks, landscaping, bird sanctuaries, pollution control, flood control and many more things. All these jobs are necessary. But they do not affect global warming." (Campaign Against Climate Change, 2009:7)

In other words, *climate jobs* are based on three principles: ecological sustainability, social justice and State intervention. They are jobs that:

- 1. Reduce the amount of greenhouse gasses we emit, to make sure that we prevent catastrophic climate change;
- 2. Build our capacity to adapt to the impacts of climate change (e.g. jobs that improve our food security);
- 3. Provide and secure vital services, especially water, energy and sanitation (this includes reducing wasteful over-consumption). (One Million Climate Jobs Campaign, 2011:9)

Moreover, climate jobs include retrofitting of buildings for energy conservation, retraining workers to become energy auditors, developing renewable energy sources, promoting sustainable transport systems, supporting community-based sustainable industries, community revitalization projects, moving towards a complete waste recycling program, and creating publicly owned infrastructures that will manage the public good among others (Canadian Labour Congress, 2000). Going from such approaches of climate jobs, the Portuguese adopted an understanding that stresses on four things which are: 1) The newness of the jobs; 2) the prioritization of current workers of polluting sector when filling job positions created in the context of JT; 3) the cutting of GHG; and the 4) the exclusive leadership of the public sector. In other words, as a Climáximo activist put it, "climate jobs will have to be jobs created exclusively by the government." (Int 4) On its own side CGTP, which is currently the biggest institution supporting the campaign, avoids the *climate jobs* terminology and prefers to stick to that of *green jobs*.

For CGTP the use of "green jobs" should be prioritized because they are jobs that respect the principles of sustainable development (as defined by the Sustainable Development Goals and endorsed by ILO), namely the economic, the environmental and the social aspects. To these dimensions of sustainable development, as a CGTP senior staff states, CGTP "adds the territorial and cultural aspects. We think that it makes no sense to speak of sustainable development if we do not consider the local realities and specificities of each milieu." (Int 7) The "conditions for green and decent jobs can exist in any sector of activity, service, industry, agriculture or fishing! Green businesses and jobs are those that respect all sustainable development principles." (Casula, 2016)

This divergence may seem neutral and simply conceptual, but when looked closely, it has important implications. This goes up to the point that when both CGTP and Climáximo are invited to talk about the campaign, each uses it vocabulary. The main

contentious points being the inclusion or non-inclusion of the private sector in the jobs created under the energy transition on one side, and on the other side the newness of the jobs. Climáximo advocates for jobs that will be completely new and exclusively in the public sector, while CGTP thinks that they may also be rebranded jobs (current jobs adapted to the requirements of green jobs), under the public as well as the private sectors as far as they respect the sustainable development principles. To solve this situation, both parties have to sit and discuss on points of convergence and a way forward. The French climate jobs launched in early 2017 can be an inspiring source in this. For the French campaign for example, out of the 1.000.000 climate jobs needed, 650.000 will be in the private sector (Aubé et al., 2017), but under the leadership of the State and its legal frameworks. In other words, the energy transition has to rely more on private sector's investments, but under a strict control of States, and not merely the market. For this purpose, States have to put in place strong legal instruments and democratically controlled institutions and mechanisms to guide both the transition and the actors of that transition. Adopting a similar inclusive approach in the Portuguese campaign, and not totally rejecting the intervention of the private sector will, facilitate the dialogue with unions and subsequently enhance their level of participation.

2.b- Popular support and Labor's engagement

The question of disinformation and misinformation around the global climate crisis is a matter of great concern. Nevertheless, we cannot relate the inaction of States to this situation because of the precautionary principle. In fact, under the Article 3.3 of UNFCCC ratified by almost all the States of the world, it is stated that where there are serious obstacles and irreversible damages, the lack of full scientific certainty should not be used as an excuse to avoid taking strong precautionary measures to confront the climate crisis (UNFCCC, 1992). Despite the institutionalization of such precautionary principle and the continuous yearly negotiations carried out under the same UNFCCC, we can today realize that all the mechanisms (mostly market-oriented) put in place did not bring any significant results in terms of reduction of GHG emissions (Federal Ministry of Environment, Nature conservation, Building and Nuclear Security, 2015). That is why in order to fight the inaction, or better said the false solutions proposed by States and the market, it is important for the population in general to put mechanisms in place to force governments to take

action and in the right direction. In order to do this, people have to fully be aware of the current and future environmental and climate dangers to which they are exposed. Unfortunately, they are generally not always well formed and informed on environmental and climate matters (Koubo, 2003). In Portugal, the situation is not different. When interviewed, one of the long-time environmental activist, FENPROF member and CGTP senior staff replied

The situation is that at the level of the head, there are reflections, but at the local levels, the environment is still seen as a problem, because at the level of corporations the environment is still seeing as a problem and not as an opportunity, because it demands some investments, and organizing work differently. The most important is not the worker. At the local level, what matters are the work conditions; the environment is not a priority. Workers as well as union representatives are still fighting for wages, and since they have not yet succeeded in that, they do not have enough time to consecrate to environmental matters, and sustainable development. So, when we talk to them, they mostly consider aspects related to work conditions. All what concerns energy efficiency, emissions cuts and so on, is not yet known or considered at the unions' level. [...] In other unions, they are completely not interested by that (Int 1)

That is why, to have a greater impact and adherence from the populations at large, or from workers and their unions, the campaign needs to reach out to them and show them in a concrete way the links between climate change and jobs, and how we can take advantage of the climate crisis to demand the creation of decent jobs. This does not have to be done only at the confederation or unions levels as it is currently done. By reaching out to the public, and workers specifically, the campaign will better align itself with their interest and can therefore secure their participation. On the other side, as a Climáximo and PI activist said

It can also be an attempt to give a new agenda to trade unions and to labor movements as a whole, because the last years have been focused on saving wages and limiting the cuts and that brings us back. The climate jobs campaign is a way forward campaign; limiting salary cuts is a defensive campaign. Also, there has always been this tension in trade-unions throughout history: some of them wanting to go further, and others wanting to save gains. [...] The idea that workers and the unions have not only to defend wages and have collective bargaining, but above all to propose changes in production is very advanced, and I think the climate jobs campaign is all about that. The possibilities are huge, and that is exactly what climate justice movements will have to do. I think that could be a rebirth for labor (Int 2)

Obviously, as noted above, the campaign is already doing much on informing and forming people and unions, but this is very much limited to the use of channels with limited access. The campaign will need to think new mechanisms to reach out to people and unions in a more effective way. The UK campaign for example opted for the use of

training activities, conferences, Internet presence and awareness-raising caravans, while the South African mostly use Internet presence, trainings, conferences, green projects in schools and door to door sensitization among others. The Portuguese campaign can inspire itself from that and develop its own approaches to better reach out to its targets according to specific local realities. If campaigners succeed in rightly forming and informing populations, workers and their unions on the issue of climate change as well as the challenges of climate justice and creation of climate jobs, that will be of great impact for the campaign. This, in fact, will lead not only to a new age of popularity and give a new legitimacy and strength to the campaign, but also and above the campaign would have raised the environmental consciousness of unions and workers and inserted environmental struggles in their agenda. This will make of the campaign a unique and great example of success which we can profitably learn from.

2.c- Financial and administrative self-reliance

The success of any project always requires the mobilization of a certain level of financial, material, institutional and administrative resources. In fact, financial self-reliance is the first and most important guarantee of survival, independence and objectivity of every organization or movement, in the pursuance of its goals and the implementation of its projects and activities. When an institution financially relies on other entities, there is always a danger that the supporting entity can easily interfere in its activities at any moment. There is also always a danger that at any time the funding partners can stop provision either in virtue of internal policies changes, priorities re-orientations, changes in the management or budgetary limitations among others. That is why it is very important and even vital for any institution that wants to survive to build its own administration and secure or create its own sustainable sources of funding. Unfortunately for the Portuguese climate jobs campaign, these conditions are not yet met at the moment. In fact, one of the most important issues faced by the campaign is financial in nature, and that has a significant impact on the activist group's activity. As the GAIA member and Climáximo activist said, "in real life, only when we have big events that we use posters and, even using posters, we are very careful in budgeting them because Climáximo does not have any budget. What happened is that we usually count the places, bars, cafés, social centers, community centers and we print as much and then we paste them." (Int 3) In fact, the

campaign does not have a source of funding, and has so far been functioning with the exclusive support of Climáximo. The activist movement as well does not have a fix source of funding. The money used for their activities comes mostly from the contributions of members and the occasionally organized *jantares populares*. Both of which cannot be considered as reliable sources of funding. It is important to note that being almost all youths, many of whom are still university students, the members do not always have the possibility of contributing a substantial amount of money for the campaign and other activities of the movement. On the other hand, concerning the *jantares populares*, they are often organized with a limited budget, and consequently generate limited funds.

Besides this financial challenge, another important aspect the campaign has to deal with is its institutionalization. In fact, the campaign is currently run mostly by Climáximo, with a limited participation of other members. It will be important to put in place an independent body to run it, as this will give more flexibility and more strength. Nevertheless, according to some campaigners, such institutionalization, even though important, can be dangerous for the future of the campaign, as one the below statement from the GAIA member and Climáximo activist clearly indicates:

Some of the massive outreach events imply that you have people working on that full time. We have no one who is not employed. Everyone has a real job; this limits our capacity to make big events. Holding a petition means you should be walking around, going to different places and so on. On the other hand, I think this is our strongest side because we are not kind of professionals who are working in this. Because this is also a way of being part of the system like you have the role of doing this in the capitalist system because there is a demand for this, you do that. This is how most of the NGOs work. NGOs are part of the system where they represent or they reflect the fact that there is democracy and everything moves as usual and I think ideologically it is a strong type and practically is a weakness (Int 3)

To solve this dilemma the GAIA member and Climáximo activist interviewee proposes a technical solution which is limited to the external management of the communication tools of the campaign. For him, "one of the solutions will be very technical. We lunched a website. The website will be completely outside of Climáximo, has its space, its own email, and has its own mailing list and so on. So, we are trying to create a space outside of Climáximo to articulate all of these." (Int 3)

Limiting the institutionalization of the campaign to the mere outsourcing of its communication tools is insufficient, and will result ineffective. The Portuguese campaign can copy from the current administrative organization of the South African one that put in

place an independent administrative body to manage its day to day life and activities. The members of such body are limited in number and they come from organizations currently supporting the campaign and are chosen rotationally. This limited-members group works towards the implementation of actions or policies previously agreed upon by the general assembly of the campaign made up of the representatives of all the member organizations and movements of the campaign (Kenfack, Forthcoming). An initiative going in this direction was evoked during the second national climate justice meeting in early March 2017, but no concrete action or decision was taken in that regards. On the contrary, such task was still left in the hands of Climáximo. Nevertheless, it was decided that the coordination meetings will be held twice a year to evaluate the evolution of the campaign; but at this point again it is not clear who are members of this coordination group. It is important for the campaign to clarify this situation as early as possible. In fact, by becoming administratively independent, the campaign will surely become more inclusive and have more support from other organizations. They will stop seeing it as Climáximo business to which they bring their more or less formal support from a distance.

In short, the survival of the campaign will depend on its capacity to fund itself, and its institutionalization. In order to do so, it has to start looking for alternative sources of funding, organizing more activities that can generate funds on one side and, on the other side, structurally organize itself and function on its own. Campaigning for JT is so important that it cannot be left to the sole management of a single movement. Just like the South African campaign did to overcome its administrative and financial challenges, and become a truly collective campaign (Kenfack, Forthcoming), all the organizations of the Portuguese one have to come into agreement and put in place an independent body with independent, suitable and sustainable resources to manage the campaign in a lasting way.

2.d- Building on better communication

Communication is a key element for the success of any campaign. In fact, through their communication activities, campaigners make their cause visible and popular, sensitize on the importance of their action and create more sympathy, thus gathering more people for their struggles. This is particularly important for social movements that have as objective to rally as many people as possible in order to force decision-makers through streets demonstrations and other civil disobedience activities. An example from Sweden better illustrates the importance of coherent communication in the success of social movements' activities. In Sweden, a "consistent narrative around climate change which combines environmental responsibility and business opportunity, has led to high levels of public understanding and support for ambitious strategy. What is required is not one communications campaign, but an on-going effort over years and even decades" (Irish Corporate Leaders on Climate Change, 2014:25). Streets demonstrations and campaigns are important approaches that social movements use to influence political decision-making processes from a bottom-up approach, but they cannot work without a large scale and long-term communication strategy. That is why, according to the Canadian Labour Congress,

Just Transition, to be more effective, will have to be associated in the public mind with the labour movement, like the right to know and protest against the "corporate welfare bums" [...] Communication strategy will have to look at the targets - who we want to reach- The engagement of community groups will be one focus, as well as environmentalists and the wider society, governments included (Canadian Labour Congress, 2000).

To be fruitful, communication approaches should take into consideration their audiences and their needs, and adapt their messages accordingly. Concerning the Portuguese case, the actors of the campaign opted mostly for an online presence. Colectivo Clima for example, which is the leading organization for the campaign in Porto, is present only on Facebook. When it comes to Climáximo, even though it uses conferences, printed posters, tracks and leaflets to be distributed during some streets events, the main communication channel remains the Internet, as the GAIA member and Climáximo activist clearly stated:

We have a blog and we are actually putting a lot of efforts on at least replicating everything on Facebook. So, we have a very active and full blog, we have our videos and our own things outside in different places where people who don't have access to Facebook or don't want to have access to Facebook can reach. We publish not only in our blog, but also in other Medias and other places; but it is relatively difficult since all is mostly online. More to that, I think in general in Europe there is a "Facebookisation" of everything, even calendars. People now know their friend's birthdays because Facebook tells them. (Int 3)

Clearly, relying mostly on the Internet and specifically on social medias for communication is limitative in scope. It may have the merit of informing and mobilizing youths, since many of them are used to those channels, but it has a limited capacity reaching workers who spend most of their time in their factories and other working environments. That is why it is important to diversify communication channels, use

newspapers that are widely read as well as radios and TV channels that have wider audiences. Publishing more often in unions' newspapers, and organizing more formative activities for schools, unions and the general publics among others may be considered as suitable option. In all those information approaches, it is important to adapt the vocabulary and the message to respective audiences (Koubo, 2003). By communicating effectively, campaigners can transform the JT ideal into a truly collective project, and the climate justice activism into a truly collective and workers struggle.

To conclude, we can say that it is in order to anchor the energy transition in the day to day life of Portuguese, and force decision-makers to take actions for that transition by addressing both the climate and the unemployment crises through the creation of climate jobs, that a collective of climate justice activists launched the climate jobs campaign with the support of some unions and labour movements. Even though it is still a young campaign, lessons can already be drawn from it in terms of efforts to build a social cohesion around the combined social and climate justice struggles, the effort to use educative activities to raise the climate conscience and the efforts to put in place a useful science to sustain the struggle and guide the decision-making process. Nevertheless, despite those lessons, the campaign has to address challenges related to the redefinition of the very concept of climate job to make it more inclusive, the low involvement of union, its funding and institutionalization, and its communication strategies. By enhancing its strengths and overcoming its challenges, the campaign can secure its survival and further development in the country.

CONCLUDING CHAPTER

The critical analysis of the current global climate political field, as can be seen from the above chapters, leads to two fundamental conclusions:

- The analysis of the current global fight against climate change shows a failure from a double perspective: 1) Failure of the market; market mechanisms instituted at the global level, instead of contributing to the reduction of global emissions became a driver for GHG emissions as they put forward new forms of capital accumulation through the commodification of nature and the trading of a "commodity" called "carbon units". 2) Failure of States; by transforming global decision-making processes into exclusively State-led procedures, States contributed in putting the majority of world population at the periphery of climate decision-making, and in transforming themselves into instruments at the service of the market and the interests of fossil fuel dependent corporations.
- The failure of such global climate regime based on carbon-trading mechanisms and State-centered decision-making has resulted in the emergence of the global climate politics from below manifested among others throught: 1) The multiplication of global mobilizations and non-State actors' alternative proposals within common platforms for climate justice both at the global, national and subnational levels. 2) The articulation of labour, social and climate justice demands that led to the development of the OMCJC (as a political alternative from below). Such campaign has the potential of facilitating innovative forms of collaboration between labour, climate justice and other social movements in order to push forward the JT agenda.

Failure of the market-based and of States-centered global climate regime

The current global climate regime is basically dominated by market-based mechanisms. From the three flexible mechanisms (namely the Emissions Trading, Clean Development Mechanism and Join Implementation) to the widely-implemented Reduction of Emissions due to Deforestation and forest Degradation (REDD), and the recently instituted Internationally Transferred Mitigation Outcomes (ITMOs) one idea remain

dominant: Only the market and the wider commodification and trading of global carbon can lead to the effective reduction of global GHG emissions. This dominant ideology has given birth to what is termed as carbon trading dogma (Leonardi, 2012; Leonardi, 2017a). Moreover, the economic valuation of nature and the resulting trading schemes, even though it has not led to any substantial reduction of GHG emissions, is still the dominant approach in the current global climate regime, and seems to hinder any other alternative solution and effective mobilization for the global climate crisis (Kill, 2015)

Another important element justifying the failure of the current global climate regime is its very exclusive nature. Even though there are a multitude of actors in the international climate arena, votes leading to final decisions are ultimately casted by State actors. That State-centrality tends to put the majority of the world population at the periphery of global climate decision-making, while the continuous reliance on carbon trading mechanisms contributes more in marketization of nature than looking for proper solutions to the climate crisis. The Paris agreement did not depart from that traditional market-oriented and exclusive decision-making paths set by the UNFCCC. Instead, as I have demonstrated in part I, under the leadership of States, it continued enhancing the power of the market and techno-fixes as advisable solutions to climate change. Faced with this situation, there is a "multitude of actions on climate being taken by a huge cross section of global civil society, from small farmers, to Indigenous people, to trade unions, to direct action groups. As politicians fail to respond to the crisis, people power is stepping up to meet the challenge." (Dearden, 2015) The global and local climate justice mobilizations, and the alternative solutions put forward by non-State actors, especially labour and climate justice movements, can better demonstrate such state of affairs.

➤ Mobilizations for climate justice and JT

The Paris mobilizations, while bypassing the ban of the French authorities can be said to have been "innovative, and explored the margins of summit mobilization, thereby showing above all, the need for innovative strategies to move beyond summits, and to develop strategies for global coordination in the movement's own 'globality'." (De Moor 2017) Nevertheless, the history of global mobilizations and movements is not new, and can neither be reduced to the Paris summit nor to the global climate activism. Social movements and mobilizations can be viewed as being an expression of democracy from

below, or better said a 'counter-hegemonic' reaction to the current neo-liberal hegemonic system (Santos, 2006), or a socio-political process that aims at the inclusion of excluded and marginalized social groups (Santos and Carlet, 2010). The environmental crisis, and global warming in particular, gave rise to local and global environmental/climate movements, and subsequently to more radical environmental/climate justice movements. Both climate movements and climate justice movements, as we have seen in part II chapter one, call for urgent actions to tackle climate change and try to put pressure on governments from below through popular mobilizations and other forms of popular expressions, but they fundamentally focus on different perspectives as far as the level of change needed is concerned. The climate movement in general advocates change within the current system and support technological innovations and to a certain extent reformed market-oriented policies as proper solutions to climate change, while the climate justice movements are more radical, demanding system change while totally rejecting technological and market-based solutions. These, for them, are false solutions that are ineffective and continue to reproduce and enhance global inequalities.

The second proposal put forward as an alternative solution to the failing climate regime, as I demonstrated in part II chapter two, is JT. Unlike the climate justice proposal that came from climate justice movements, JT came as a contribution from unions and labour movements. The involvement of labour in non-workplace related struggles in general, and in environmental/climate issues in particular, has to be situated within the broader context of what is known as SMU. This analytical tool, as elucidated in part II chapter one, is instrumental in understanding how trade unions gradually included social justice and other communities' demands in their struggles. Such articulation was, for example, essential in the fight for the institution of liberal democracy, and fundamental and equal rights for all citizens in countries such as South Africa, Brazil Philippines and South Korea (Waterman, 1988; Waterman, 1991a; Lambert and Webster, 1988; Scipes, 1992; Scipes, 2003; Von Holdt, 2002; Sutcliffe, 2012; Scipes, 2014; Gindin, 2016;). Nevertheless, when it comes to the specific articulation between labour and climate/environmental demands, the first decade of the second millennium mark an important turning point, e.g. the gradual official integration of climate concerns in the agenda of global trade unions that culminated in the organization of the First Trade Unions Assembly on Labour and the Environment that took place in 2006 at the Headquarters of UNEP in Nairobi; this was subsequently followed by the creation of a department in charge of climate matters in ITUC and its affiliated trade unions (Murillo, 2013; Barca, 2015), and was also translated into the adoption of JT as the official labor strategy in climate matters.

As I have demonstrated, even though JT has the potential of bringing together a broad range of actors together, as seen in the case of the OMCJC of South Africa, it still has to face important internal contradictions. In fact, the JT movement is divided between the minimalist and the system changers. Defenders of the minimalist version support that the transition should be done within the current neoliberal system. For them technical solutions to solve the climate crisis are encouraged, and this can be done within reformed institutions of the capitalist system. On the contrary, those advocating system change hold the neoliberal capitalist system entirely responsible for the current global climate change, and demand the complete change of paradigm, outside of capitalist models. If we can say that minimalists are locked in the capitalist system which they aim to reform, system changers on their side believe the reform of the capitalist system to render it friendly to workers and to the environment is impossible. In the South African and Portuguese campaigns COSATU and CGTP respectively represent this minimalist version of the JT, while NUMSA and Climáximo respectively represent the more radical system changers' vision.

The second internal contradiction we can highlight from the study of JT is the role State actors have to play in the transition. A parallel reading of the South African and Portuguese campaigns shows that both campaigns globally advocate that the transition should be led by the State (even though in the South African case some organizations led by NUMSA are radically opposed to the involvement of the State in the transition). In this regards, they can be criticized for having a somehow naïve understanding of the State, as a homogenous entity without conflictual interests. Moreover, the Portuguese campaign rejects completely the intervention of the private sector (while the South African campaign is silent on this point). Taking into account both cases, we can say that even though we cannot count on part of the system (State) to fight the system (neoliberal capitalism), to completely reject the intervention of the private sector in the transition process seems also naïve. It is important to think of an alternative process that includes both State actors and non-Sovereign actors.

As Malte Fiedle writes, the ecological transition

Requires a new alliance of social and ecological actors. [...] The Left and the ecological parties, such as environmental associations and the climate movement, have so far not been successful enough in persuading the people affected on the ground to be involved in an energy transition. It has become clear that a union organisation is a key aspect when it concerns the implementation of a Just Transition. (Fiedler, 2017)

As seen in Part II chapter three and in Part III chapter two and three, new alliances involving not only social and environmental/climate actors, but also labour movements and unions are been developed around the world to demand for JT to a low carbon economy.

> The climate jobs campaign: Articulating labour and climate justice demands

The climate jobs campaigns can be situated in the new wave of alliances and can be characterized as red-green-social alliance movements demanding JT to a low carbon economy in specific national contexts. In this work, I considered two of the climate jobs campaign currently implemented, namely the OMCJC of South Africa, and the Empregos para o Clima (jobs for the climate) of Portugal. The first campaign was instrumental in analyzing SMU as well as the strengths and limitations of the JT project, while the second case was used to demonstrate, from an empirical perspective how a climate jobs campaign is prepared and implemented in a specific context.

The analysis of both campaigns brings us to realize that they have been successful in two aspects: 1) Building coalitions that bring together trade unions, labour, environmental, climate justice, faith-based and other social justice movements to demand for inclusive solutions for the climate crisis. 2) Demonstrating that the opposition between the protection of the environment and the safeguarding of jobs can be overcome through the creation of climate jobs in the post-carbon economy. In order to do this, the campaigns present an alternative based on quantified possible jobs that can be created in the new economy. Concerning the contradictions of the campaign, they can also be viewed from a double perspective: 1) From the campaigns transpires the fundamental contradiction of the JT project, contradiction that equally differentiates fundamentally climate justice movements from the general climate movement, namely the environmental modernization and system changers divide. 2) Both campaigns count basically on the State to secure the transition to a low carbon economy. In other words, climate jobs will need to be State-led jobs. Going even further, the Portuguese campaign demands that climate jobs should

exclusively be public sector jobs, but the South African campaign does not implicitly or explicitly claim such limitation.

Finally, the focus on the Portuguese campaign helps understand that the emergence of the campaign was made possible by the co-existence of two crises: The climate and the employment crisis. In the specific context of Portugal, the climate crisis is mainly characterized by the exposure of the coastal areas and that of the autonomous regions of Açores and Madeira to the sea level rise, the vulnerability of its agriculture and its forests, the rise of temperatures among others. The employment crisis in the country is visible through the high unemployment rate, especially the high level of youth unemployment, and the high level of work precarity, manifested in three basic ways: 1) The extended use of freelance workers payment receipts (recibos verdes) and short term contracts; 2) the use of research fellowships (bolsas) to recruit workers for administrative and maintenance tasks (both in universities, research laboratories and in the public administration), with many working for decades without any social security coverage, retirement plan, or permanent contracts; 3) the low salaries, compared to the life standard. To address those two crises in a synergetic way, a group of Portugal-based activists, inspired by the OMCJC as implemented in other contexts, and above all in the UK and South Africa, convinced that the future and the habitability of the planet are quite important and cannot be left into the hands of the current economic system (Eden, 2016), decided to launch such campaign in Portugal on May 1st 2016.

Unlike the other campaigns that were initiated by trade union members (like in the UK with the trade union group of the campaign against climate change) or have a great support and implication of trade unions (like in South Africa with NUMSA and COSATU), the analysis of the Portuguese campaign shows that it was initiated by a group of climate justice activists (mostly youths), with a limited support from trade unions. This limited support can be related to the traditional strong divide between work related issues to be defended by unions and other social concerns to be defended by other social movements, as most interviewees pointed out during our discussions. Nonetheless, one of the major successes of the Portuguese campaign is to have contributed in raising the climate justice awareness of trade unions (even though at this moment, the awareness is still limited at the institutional level, mostly at the CGTP, SPGL, FENPROF, SPGNorte and SPGSul levels among others). Another strength of the Portuguese campaign is the importance it gives to

the training of union officials, social movements and people in general, in order to raise their environmental consciousness and enhance climate activism. In fact, considering that

More than ever, [energy transition] must extend and become anchored in all the activities of our everyday life: education, research, support for households in difficulty, assistance for the extracurricular activities, exhibitions, etc. It is not enough to found companies that build wind turbines if nobody wants to install them on its territory. It is not enough to create bike infrastructures if the use of bikes is considered dangerous by the majority of people. It is not enough to explain the dangers of climate change if one does not imagine that another, more desirable, future exists. [...] We must build wind turbines and trains, we must renovate "energy stories", but also we have to go to people, where they are. There is a need to have the capacity and the time to organize events and projects at the local level, in order to meet, train and mobilize citizens. (Aubé et al., 2016:28. Personal translation)

The Portuguese campaign involves in many outdoor and training activities, with the aim of building a strong climate justice consciousness and a strong climate justice network to push for JT at the national level.

Nevertheless, the campaign faces important challenges. The most significant are: 1) Redefining the concept of climate jobs to make it more inclusive and to secure a greater participation from trade unions. In fact, in the Portuguese campaign there is a divergent understanding of jobs to be created in the post-carbon economy, and this is manifested through the vocabulary used by the two most important actors: Climáximo using the climate jobs terminology, and CGTP using the green jobs vocabulary. More than a simple terminological differences, this reveals a different conceptual approach which is symptomatic of the very contradiction of JT and climate movements demands; in this regards, by defending green jobs in the current system CGTP, following the position of ITUC (of which CGTP is member), goes in line with the ecological modernizers' approach, while Climáximo defends climate jobs in the context of a completely new system following the radical demands of system changers generally endorsed by climate justice movements. Overcoming such contradiction in a consensual way will be vital for the campaign, as it will result in a greater involvement of CGTP and other unions in the campaign. For this purpose, it will be important for the actors of the Portuguese campaign to discuss and agree on the terminology to be used, as well as the meaning to give to the concepts adopted. In fact, so far, the actors of the campaigns have never come together to discuss contentious issues such as this one, even though it is essential for the smooth running of the campaign. 2) Building a financial and administrative self-reliance. At the moment, the general tendency is to consider the Portuguese campaign as Climáximo's

affair, and the other organizations as peripheral participants. Nevertheless, the activist group does not have the financial and administrative capacities to sustain the campaign for a long period (Climáximo has no legal status; it is made up of activists without consistent and sustainable financial resources). To solve this loophole, the Portuguese campaign could draw from the experience of the South African campaign, and put in place an independent executive body (made up of the representatives of the participating organizations) to run the campaign on a permanent basis, and look for consistent and sustainable sources of funding to support it activities. 3) Building a better system of communication and visibility. The current communication approach of the campaign is dominated by the presence in social medias (especially on Facebook), occasional posters along the streets and distribution of leaflets and pamphlets (mostly when significant outdoor activities such as the climate march for example are being organized). As a Climáximo and PI activist I interviewed observed, "Portugal has a 100 percent Internet coverage, but this does not imply that everybody has access or use social media. Moreover, many people use the Internet for personal communication rather than information." (Int 2) This observation brings us to conclude that, in order to become more visible and make its activities better known, the campaign will have to look for alternative means and methods of communication to reach diversified audiences. 4) Finally, one of the important challenges the Portuguese campaign has to address is related to the place it gives to the private sector. In fact, the campaign claims that climate jobs have to be exclusively public sector jobs. This demand demonstrates the belief of campaigners in the State-providence, rather than the State as a regalian authority. The French campaign known as un million d'emplois pour le climat, launched after the Portuguese campaign, offers a way forward in this regard. In fact, according to the previsions of the French campaign, 650.000 of the one million jobs to be created in the context of energy transition will be in the private sector, and only 35.000 will be in the public sector. Moreover, it is anticipated that the jobs created in the public sector will mostly be service jobs and the productive jobs will be left to the private sector (Aubé et al., 2016). In this scenario, the responsibility of the State will be to put in place effective and efficient legal and administrative instruments, and to ensure that those instruments are effectively implemented to facilitate a smooth energy transition. This approach, not totally rejecting the private sector, and without relying exclusively on the

State for ecological transition, proposes a balanced solution that can inspire other climate jobs campaigns among which the Portuguese campaign, as summarized in figure 3 below

Figure 3: Parallelisms between JT and global climate mobilizations

		Actors	methods	Results	Defenders		
Just Transition movements/ project	Eco-modernization	- Current neo-liberal institutions - States - Market - ITUC	- Uses of market solutions - Techno-fixes - Geo- engineering	- Global green deal - Green economy - Sustainable development	- COSATU in the South African OMCJC - CGTP in the Portuguese emprego para o clíma	Eco-modernization	: mobilization
	System changers	- Community organizations - Radical labour movements	-Abandonment of fossil fuels - Rejection of market mechanisms - Rejection of technological solutions	- Climate friendly development models - Post- capitalist societies	- NUMSA in the South African campaign - Climáximo in the Portuguese campaign	System changers	Global climate mobilization

Private leadership/ State control (example of the French climate jobs campaign)

The analysis of the current global climate governance teaches us several lessons:

- Global climate politics from above (under the leadership of market, corporations and States) will definitely never lead to a proper solution to the climate crisis, as we can learn from the experience of more than two decades of UNFCCC-led global climate struggles
- Global, national and local climate mobilizations/politics from below (under the leadership of local communities, climate movements and, more and more labour

movements and trade unions) offer an alternative forward from the current failing climatopolitics. Nevertheless, those climate mobilizations from below are still quite fragmented and generally divided between eco-modernizers and more radical movements such as climate justice movements asking for system change.

- The OMCJC as a way forward from current fossil fuels dependent development paths to a post-carbon society appears as a prominent alternative. Nevertheless, it is faced with international contradictions that need to be addressed, such as the reliance on neo-liberal States to fight the neo-liberal system, and the division between eco-modernizers and system changers. If those challenges are properly addressed, the OMCJC will become a great alternative that can be put forward to push States to engage in the path of JT.
- The Portuguese climate jobs campaign, even though it is still quite young, is already playing a substantial role in raising the awareness and motivating to action unions and labour movements in a country that, historically, has demonstrated a quite low and almost inexistent environmental consciousness among workers and unions.
- From the climate justice perspective, the protection of the environment is neither only an environmental matter nor simply a social matter, but a matter of self-survival. Slogans currently used by global as well as local climate justice movements such as "we are nature in self-defense", "we are not defending nature, we are nature defending itself" demonstrate that the vocabulary of the environmental justice movements is taking new roots; those of self-identification with nature which is quite close to the holistic environmental view expressed by Pope Francis in his Encyclical letter *Laudato si*.
- In order to succeed, the JT project does not have to be abandoned in the hands of States, nor in the sole control of the market, but to the "democratic management" of populations and communities. In this configuration, States have to play an important regulatory role, as proposed by the French OMCJC.

GENERAL BIBLIOGRAPHY

- Agência Portuguesa do Ambiente. 2015a. Estratégia Nacional de Adaptação às Alterações
 Climáticas. Agência Portuguesa do Ambiente. Lisboa
- Agência Portuguesa do Ambiente. 2015b. Programa Nacional para as Alterações
 Climáticas. Agência Portuguesa do Ambiente. Lisboa
- Agência Portuguesa do Ambiente. 2015c. Quadro Estratégico da Política Climática.
 Agência Portuguesa do Ambiente. Lisboa
- Aguinaga E. 2016. "Labor Day and Just Transition." Available http://www.gcclp.org/single-post/2016/05/01/Labor-Day-Just-Transition
- Ahmed A. and Sil R. 2012. "When Multi-Method Research Subverts Methodological Pluralism-or, Why We Still Need Single-Method Research." *Perspectives on Politics* 10(4):935-953
- Associação para a Competitividade da Indústria da Fileira Florestal (AIFF). 2015.
 Relatório de caracterização da fileira florestal 2014. Associação para a Competitividade da Indústria da Fileira Florestal. Lisboa
- Albritton R. 1999. Dialectics and Deconstruction in Political Economy. Palgrave Macmillan. New York
- Alston M. and Whittenbury K. 2013. Research, action and policy: Addressing the gendered impacts of climate change. Springer. Netherlands
- Alternative Information Development Centre (AIDC). 2013. *Climate change and climate jobs: Easy answers to 56 important questions*. Alternative Information Development Centre. Cape Town
- Amin S. 2010. "The Battlefields Chosen by Contemporary Imperialism: Conditions for an Effective Response from the South. Kasarinlan: Philippine" *Journal of Third World* Studies 25(1/2):5-48
- Anderson K. 2015. "Duality in climate science." *Nature Geoscience* 8:898–900
- Andreucci D. 2017. "Ecology after capitalism." Available at: https://entitleblog.org/2017/01/24/ecology-after-capitalism/
- Angelsen A., Brockhaus M., Sunderlin, W.D. and Verchot L.V. (éds.). 2013. *Analyse de la REDD+: Les enjeux et les choix*. Centre for International Forestry Research. Bogor

- Associação Nacional dos Guardas e Vigilantes da Natureza (APGVN). 2016. "Associação Nacional dos Guardas e Vigilantes da Natureza pede reforço do número de profissionais."
 Available at http://www.brigantia.pt/noticia/associacao-nacional-dos-guardas-e-vigilantes-da-natureza-pede-reforco-do-numero-de
- Armiero M. and Sedrez L.F. 2014. "Introduction" In Armiero M. and Sedrez L.F. (Eds.)
 2014. A history of Environmentalism: Local Struggles, Global Histories. Bloomsbury.
 London-New York. Pp. 1-19
- Aron R. 1966. *Peace and War: A Theory of International Relations*. Doubleday and Company. New York
- Arora-Jonsson S. 2011. "Virtue and vulnerability: discourses on women, gender and climate change." Global Environmental Change 21:744-751
- Arowolo S. 2015. "COP 21: Towards an inclusive climate negotiation in Paris" available at: http://www.csag.uct.ac.za/2015/07/17/cop-21-towards-an-inclusive-climate-negotiation-in-paris/
- Associação Nacional das Empresas do Comércio e da Reparação Automóvel (ANECRA).
 available at http://www.anecra.pt/gabecono/pdf/graf1993.pdf
- Atallah M. 2016. "The power of an enabling environment for REDD+ Action" Available at http://www.un-redd.org/single-post/2016/12/09/The-power-of-an-enabling-environment-for-REDD-Action
- Aubé D., Fink M., Planche J. and Rivoire J. (Cord.) 2016. Un million d'emploi pour le climat.
 Available at https://drive.google.com/file/d/0B1Wrzs_FvRAUSHU0Qzhjbi10SzA/view
- Austin-Evelyn K. 2012. "Civil Society at the UN Climate Change Conference: African Activism at COP17". Available at http://www.polity.org.za/article/civil-society-at-the-un-climate-change-conference-african-activism-at-cop17-2012-02-14
- Awash B. 2014. Political Ecology of Climate Change and Conflict Research: Methodological Pathways. Binghamton University Press and New York State University Press, New York
- Bachram H. 2004. "Climate fraud and carbon colonialism: The new trade in greenhouse gases." *Capitalism, Nature, Socialism* 15(4):1-16.
- Bäckstrand K. and Lövbrand E. 2007. "Climate Governance Beyond 2012: Competing Discourse of Green Governmentality, Ecological Modernization and Civic

- Environmentalism." in Pettenger M.E. (Ed.). 2007. *The Social Construction of Climate Change: Power, Knowledge, Norms, Discourses*. Ashgate. Hampshire. Pp. 123-148
- Badie B. and Smouts M-C. 1992. Le retournement du monde: Sociologie de la scène internationale. Presses de Science Pô, Dalloz. Paris
- Baechler G. 1999. Violence Through Environmental Discrimination: Causes, Rwanda Arena, and Conflict Model. Kluwer Academic Publishers. Boston
- Baker S. 2007. "Sustainable development as symbolic commitment: declaratory politics and the seductive appeal of ecological modernisation in the European Union." *Environmental Politics* 16(2):297-317
- Bakker K. 2015. "Neoliberalization of nature". In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 457-466
- Ban Ki M. 2007. "A Climate Culprit in Darfur." Washington Post June 16, 2007
- Barbier E. B. 2010. A Global Green New Deal: Rethinking the Economic Recovery.

 Cambridge University Press. New York
- Barca S and Delicado A. 2016. "Anti-Nuclear Mobilisation and Environmentalism in Europe: A View from Portugal (1976-1986)." *Environment and History* 22:497-520
- Barca S. 2012. "On working-class environmentalism: A historical and transnational overview." *Interface: a journal for and about social movements* 4 (2):61-80
- Barca S. 2014. "Telling the Right Story: Environmental Violence and Liberation Narratives." Environment and History 20:535-546
- Barca S. 2015. "Greening the job: Trade unions, climate change and the political ecology of labour." In Bryant R.L. (Ed.). *The International Handbook of Political Ecology*. Edward Elgar Publishing. Cheltenham/Northampton. Pp 387-400
- Barca S. 2016a. "Labor in the Age of Climate Change" Available at https://www.jacobinmag.com/2016/03/climate-labor-just-transition-green-jobs/
- Barca S. 2016b. "On the political in environmental history." *Ecological History Review* 1:145-146
- Barca S. 2017. "The labor(s) of degrowth." Available at: https://entitleblog.org/2017/01/31/the-labors-of-degrowth/
- Barrett S. 2008. "Climate treaties and the imperative of enforcement." *Oxford Review of Economic Policy* 24(2):239-258

- Barry J. 2013. "Trade Unions and transition from 'Actually existing unsustainability':
 From economic crisis to new political economy beyond Growth." In Uzzell D. and Räthzel
 N. (Eds.). 2013. Trade unions in the green economy: Working for the Environment.
 Earthscan, London.
- Batliwala S. 2012. Changing their World: Concepts and Practices of Women's Movements.
 2nd Edition. Association for Women's Rights in Development (AWID). Toronto
- Batterbury S. 2015. "Doing political ecology inside and outside the academy." In Bryant R.L. (Ed.). *The International Handbook of Political Ecology*. Edward Elgar Publishing. Cheltenham/Northampton. Pp 27-43
- Bauler T. 2013. "Political Ecology." Available at http://www.ejolt.org/2013/02/political-ecology
- Bennie A. 2013. "Sustainable Development or Environmental Justice? Questions for Trade
 Unions on Land, Livelihoods and Jobs." In Uzzell D. and Räthzel N. (Eds.). 2013. Trade
 unions in the green economy: Working for the Environment. Earthscan. London.
- Berger G., Flynn A., Hines F. and Johns R. 2001. "Ecological Modernization as a basis for Environmental Policy: Current Environmental Discourse and Policy and the Implication on Environmental Supply Chain Management." *Innovation* 14(1):55-72
- Betsill M.M. 2006. "Transnational Actors in International Environmental Politics." In Betsill M.M., Hochstetler K., and Stevis D. (Eds.). *Palgrave Advances in International Environmental Politics*. Palgrave Macmillan. Basingstoke and New York. Pp. 172-202
- Betzold C. 2013. Non-State Actors in International Climate Change Negotiations: A
 Synthesis. Working Paper 61. National Centre of Competence in Research (NCCR):
 Challenges to Democracy in the 21st Century. Zurich
- Bezuidenhout A. 2000. Towards global social movement unionism? Trade union responses to globalization in South Africa. Discussion papers 115. International Institute for Labour Studies. Geneva
- Bill A., Welters R., Rutovitz J., Evans G. and Mitchell W. 2008. *A Just Transition to a Renewable Energy Economy in the Hunter Region, Australia*. Centre of Full Employment and Equity. Newcastle
- Black Economic Empowerment Commission. 2001. *Black Economic Empowerment Commission Report*. Skotaville Press. Johannesburg

- Blaikie, P., Cannon T., Davis and Wisner B. 1994. *At risk: Natural hazards, people's vulnerability and disasters.* Routledge. London
- Blauwhof F.B. 2012. "Neoliberalizing nature? Market environmentalism in water supply in England and Wales." *Annals of the Association of American Geographers* 9:542-565
- Blue G. 2015. *Public Participation and Climate Governance: Opening up or Closing down Policy Options*. Public Participation and Climate Governance Working Paper Series. Available at http://cisdl.org/public/docs/BLUE.pdf
- Blumer H. 1951. "Collective hehavior." in McClug L.A. (ed.). 1951. New Outline of the Principles of Sociology. Barnes and Noble Book. New York. Pp. 166-222
- Böhm S. 2015. "Why the Paris climate talks are doomed to failure, like all the others"
 Available at: https://theconversation.com/why-the-paris-climate-talks-are-doomed-to-failure-like-all-the-others-50815
- Böhm S., Murtola A.M. and Spoelstra S. 2012. "The atmosphere business." *Ephemera* 12(1/2):1-11
- Bond P. 2015. "Challenges for the climate justice movement: connecting dots, linking Blockadia and jumping scale." In Temper L. and Gilbertson T. 2015. *Refocusing resistance* for climate justice: COPing in, COPing out and beyond Paris. Pp. 17-34. Available at http://www.ejolt.org/wordpress/wp-content/uploads/2015/09/climate-justice-report.pdf
- Bookchin M 1986. "Freedom and Necessity in Nature: A Problem in Ecological Ethics."
 Available at: http://theanarchistlibrary.org/library/murray-bookchin-freedom-and-necessity-in-nature-a-problem-in-ecological-ethics.pdf
- Boone C.G. and Klinsky S. 2016. "Justice and sustainable urban future." In Seto V.K., Solecki C.W.D. and Griffith C.A. 2016. The Routledge Handbook of Urbanization and Global Environmental Change. Routledge. New York
- Boucher J. 1990. Les mouvements sociaux : Réflexion à partir des théories de l'action collective et de la régulation. Cahiers du Centre de recherche sur les innovations sociales (CRISES) Collection Études théoriques. N° ET9003. Québec.
- Boundless. 2016. "New Social Movements." Boundless Sociology. Boundless. Available at https://www.boundless.com/sociology/textbooks/boundless-sociology-textbook/social-change-21/social-movements-140/new-social-movements-774-3153/ Retrieved 18/11/2016
- Bourdieu P., Chamboredon J-C. and Passeron J-C. 2005. Le Métier de Sociologue. De Gruyter Mouton. Berlin. [1st Edition in 1968]

- Bowles W. 2012. "Economic and Social Crisis in Post-Apartheid South Africa" Available at http://www.globalresearch.ca/economic-and-social-crisis-in-post-apartheid-south-africa/32505
- Brande V. 2008. "EU Normative Power on Climate Change: A Legitimacy Building Strategy?" Available at http://www.uaces.org/pdf/papers/0801/2008_VandenBrande.pdf
- Braun B. 2015. "From critique to experiment? Rethinking political ecology for the Anthropocene." In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 102-114
- Brecher J, Costello T. and Smith B. 2000. "Globalization From Below" Available at http://www.alternet.org/story/10220/globalization_from_below
- Breitmeier H. and Rittberger V. 1998. "Environmental NGOs in an Emerging Global Civil Society." Tübinger Arbeitspapiere zur Internationalen Politik und Friedensforschung 32. Tübingen.
- Briand A. 2011. "Background to One Million Climate Jobs for South Africa". In One Million Climate Jobs Workshop: Seminar report. 18 March 2011. AIDC. Cape Town
- Bridge G., McCarthy J. and Perreault T. 2015. "Editors' introduction." In Perreault T.,
 Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology.
 Routledge. Oxon and New York. Pp. 3-18
- Broder J. M. 2010. "Climate Fight Is Heating Up In Deep Freeze." New York Times.
 February 11th, 2010
- Brofenbrenner K. and Juravich T. 1998. "It takes more than house calls: Organizing to win with a comprehensive union building strategy." in Brofenbrenner K., Friedman R. W., Hurd, R. A. and R. L. Seeber R. L. (Eds). 1998. Organizing to Win: New Research on Labor Strategies. ILR Press. New York. USA
- Brown H.C.P., Smit B., Sonwa D.J., Somorin O.A. and Nkem J.N. 2011. "Institutional perceptions of opportunities and challenges of REDD+ in the Congo Basin." *Journal of Environment and Development* 20:381-404
- Bruno K., Karliner J. and Brotsky C. 1999. Greenhouse Gangsters vs. Climate Justice.
 Transnational Resource and Action Center. San Francisco
- Bullard N. and Müller T. 2012. "Beyond the 'Green Economy': System Change, Not Climate Change?" *Development* 55(1):54-62

- Bumpus A.G and Liverman D.M. 2011. "Carbon colonialism? Offsets, greenhouse gas reductions, and sustainable development." in Peet R., Robbins P. and Watts M. (Eds.).
 Global Political Ecology. Routledge. London and New York. Pp 203-224
- Burawoy M. 1998. "The Extended Case Method." Sociological Theory 16(1):4-33
- Burtraw D. and Szambelan S. J. 2009. U.S. Emissions Trading Markets for SO₂ and NO₂.
 RFF Discussion Paper. Washington
- Busby J. 2016. "After Paris: Good Enough Climate Governance." Current History 19:3-9
- Buxton N. 2016. "COP 21 Charades: Spin, Lies and Real Hope in Paris" Globalizations 13:934-937
- Buyse N. 2003. "Aperçus théoriques pour l'analyse de politiques publiques Action collective et négociation des politiques publiques". In Sabourin E., Antona M. et Coudel E. (éditeurs scientifiques). 2003. Séminaire Permanent Action Collective. Actes du séminaire. Decembre 2003. Cirad. Montpellier.
- Cabello J. and Gilbertson T. 2012. "A colonial mechanism to enclose land." *Ephemera: Theory and Politics in Organization* 12(1-2):167-180
- Camargo J. 2016. "Floresta: Como torná-la num verdadeiro sumidouro e armazém de carbono." Available at http://www.empregos-clima.pt/floresta-como-torna-la-num-verdadeiro-sumidouro-e-armazem-de-carbono-joao-camargo-ics/
- Camfield D. 2007. "Renewal in Canadian public sector unions: neoliberalism and union praxis." *Industrial Relations* 62(2):282-304
- Campaign against climate change. "Mission Statement: Campaign Aims and Objectives" available at: http://www.campaigncc.org/aboutus/missionstatement
- Campaign against climate change. 2009. One million climate jobs NOW! A report by the Campaign against Climate Change trade union group to the Communication Workers Union, Public and Commercial Services union, the Transport Salaried Staff Association and the University and College Union. Available at http://www.campaigncc.org/sites/data/files/Docs/one_million_climate_jobs_2014.pdf
- Campos I.S., Alves F. M., Dinis J., Truninger M., Vizinho A. and Penha-Lopes G. 2016.
 "Climate adaptation, transitions, and socially innovative action-research approaches."
 Ecology and Society 21(1): 1-11. Article 13. Available at https://www.ecologyandsociety.org/vol21/iss1/art13/

- Canadian Labour Congress. 2000. Just Transition during Environmental Change.
 Available at http://www.canadianlabour.ca/news-room/publications/just-transition-workers-during-environmental-change
- Caniglia B.S. 2001. "Informal Alliances vs. Institutional Ties: The Effects of the Elite Alliances on Environmental TSMO Network Positions" *Mobilization* 6(1):37-54
- Caniglia B.S., Brulle R.J. and Szaz A. 2015. "Civil Society, Social Movements, and Climate Change." In Dunlap R.E. and Brulle R.J. (Ed.). 2015. *Climate change and Society:* Sociological perspectives. Oxford University Press. New York. Pp 235-268
- Cano M. 1560. De locis theologicis. Available at http://www.documentacatholicaomnia.eu/03d/1509-1560, Cano Melchior, De Locis Theologicis, LT.pdf
- Carolan M.S. 2004. "Ecological Modernization Theory: What about consumption?" *Sociological Quaterly* 53:422-453
- Carton W. 2009. *Nature and the Myth of a Sustainable Capitalism*. Unpublished Master Thesis. Aalborg University
- Carvalho A., Schmidt L., Santos F.D. and Delicado A. 2014. "Climate change research and policy in Portugal." *Wiley Interdisciplinary Reviews: Climate Change* 5(2):199-217
- Carvalho P. 2017. "Transporte Público Rodoviário Urbano: Carris e o seu Potencial Impacto nas Emissões" Available at http://www.empregos-clima.pt/transporte-publico-rodoviario-urbano-carris-e-o-seu-potencial-impacto-nas-emissoes-filipe-carvalho-climaximo/
- Carvalho-Ribeiro S.M., Lovett A., and O'Riordan T. 2010. "Multifunctional forest management in northern Portugal: moving from scenarios to governance for sustainable development." *Land Use Policy* 27(4):1111-1122
- Castree N. 2008 "Neoliberalising nature: processes, effects, and evaluations." *Environment and Planning A* 40(153)
- Castree N. 2009. "Crisis, Continuity and Change: Neoliberalism, the Left and the Future of Capitalism." Antipode 41(S1):185–213
- Casula G. 2016. "A transição justa como solução para criação de emprego" Available at http://www.cgtp.pt/images/images/2016/11/TransicaoJusta.pdf

- Centemeri L. 2015. "Reframing problems of incommensurability in environmental conflicts through pragmatic sociology. From value pluralism to the plurality of modes of engagement with the environment." *Environmental Values* 24(3)299-320
- Center for Climate and Energy Solutions. 2015. "Market mechanisms: Understanding the options." Available at https://www.c2es.org/publications/market-mechanisms-understanding-options
- CGTP. 2016. "Por uma política de mais e melhor emprego, urge lutar contra a precariedade." Available at http://www.cgtp.pt/informacao/comunicacao-sindical/9774-por-uma-politica-de-mais-e-melhor-emprego-urge-lutar-contra-a-precariedade
- Chan G., Starvins R., Stowe R. and Sweeney R. 2012. The SO₂ Allowance Trading System and the Clean Air Act Amendments of 1990: Reflections on Twenty Years of Policy Innovation. Harvard Environmental Economics Program. Cambridge
- Chatterton P., Featherstone D. and Routledge P. 2012. "Articulating climate justice in Copenhagen: Antagonism, the commons, and solidarity." *Antipode* 45(3):602-620
- Childs M. 2012. "Privatising the atmosphere: A solution or dangerous con?" *Ephemera* 12(1/2):12-18
- Centre for International Forestry Research (CIFOR). 2009. *REDD tout simplement: Guide sur les forêts, le changement climatique et REDD*. Centre for International Forestry Research. Bogor
- Cimbes M. 2015. "Having the last word: towards Paris2015 challenges and perspectives."
 In Temper L. and Gilbertson T. 2015. Refocusing resistance for climate justice: COPing in, COPing out and beyond Paris. Pp. 42-52. Available at http://www.ejolt.org/wordpress/wp-content/uploads/2015/09/climate-justice-report.pdf
- Claeys P. and Delgado D. 2015. "Peasant and Indigenous Transnational Social Movements
 Engaging with Climate Justice." International Conference Paper Series 15. Transnational
 Institute. Amsterdam
- Clarke T. 2015. "Canada." In Neale J., Spence T. and Ytterstad A. 2015. Global climate jobs. Available at: https://globalclimatejobs.files.wordpress.com/2015/09/global-jobs-online-sept-2015.pdf
- Clawson D. 2003. *The Next Upsurge: Labor and the New Social Movements*. Cornell University Press, Ithaca. New York

- Climate Action Network. 2012. "Submission on Joint Implementation" Available at http://unfccc.int/resource/docs/2012/smsn/ngo/245.pdf
- Climáximo. 2016. "Lançamento da campanha: Empregos para o Clima." Available at https://climaximo.wordpress.com/2016/05/02/lancamento-da-campanha-empregos-para-o-clima/
- Climáximo. 2017. "100 000 Climate Jobs in Portugal." Available at http://www.empregosclima.pt/100-000-climate-jobs-portugal/
- Cock J. 2007. "Sustainable Development or Environmental Justice: questions for the South African labour movement from the Steel Valley Struggle". *Labour, Capital and Society*. 40(1-2)
- Cock J. 2010. "Review of Burawoy's 'The Extended Case Method" Available at: https://escarpmentpress.org/globallabour/article/viewFile/1077/1133
- Cock J. 2011. "Labour's Response to Climate Change." *Global Labour Journal* 2(3):235-242
- Cock J. 2014. "The 'Green Economy': A Just and Sustainable Development Path or a
 'Wolf in Sheep's Clothing'? Available at
 http://www.wits.ac.za/files/3pf1r_762213001404218311.pdf
- Cock J. and Lambert R. 2013. "The Neo-Liberal Global Economy and and Nature: Redifining Trade Union Role." In Uzzell D. and Räthzel N. (Eds.). 2013. Trade unions in the green economy: Working for the Environment. Earthscan. London
- Cock J. and Wainwright H. 2015. "Transformative Trade Unionism and Low-Carbon Futures." In Buxton and Hayes b. 2015. The Secure and the Dispossessed – How the Military and Corporations are Shaping a Climate-changed World. Pluto Press. New York
- Collinson D.L. 1992. Managing the Shopfloor: Subjectivity, Masculinity and Workplace Culture. De Gruyter Mouton. Berlin
- Corbera E. 2011. "Payments for Environmental Services: Are they a solution for conservation?" Paper presented at the European Forest Institute Winter School Freiburg, March 24, 2011. Available at: http://www.eficent.efi.int/files/attachments/eficent/corbera_pes.pdf
- COSATU. 2011. "COSATU policy framework on climate change: Adopted by the COSATU Central Executive Committee, August 2011." Available at http://www.cosatu.org.za/show.php?ID=5679

- Costanza R. d'Arge R., de Groot R., Farberk S., Grasso M., Hannon B., Limburg K., Naeem S., O'Neill R. V., Paruelo J., Raskin R. G., Sutton P. and van den Belt M. 1997.
 "The value of the world's ecosystem services and natural capital" in *Nature* 387(6630): 253-260
- Craft J. and Howlett M. 2013. "The dual dynamics of policy advisory systems: The impact of externalization and politicization on policy advice." *Policy and Society* 32(3):187-197
- Crossley N. 2002. *Making sense of social movements*. Open University Press. Buckingham, Philadelphia.
- D'Amours M., Bellemare G. and Briand L. 2012. "Grasping new forms of unionism: The case of childcare services in Quebec." *Interface: a journal for and about social movements* 4 (2):158-180
- Daily G.C. 1997. *Nature's Services: Societal dependence on natural ecosystems*. Island Press. Washington
- Day J. 2015. "Paris Agreement Sets the Stage for Global Greenhouse Gas Emission Reductions" Available at: <a href="http://www.jonesday.com/files/Publication/4b8db255-4f58-456f-9cba-53c1830587f9/Presentation/PublicationAttachment/37733814-f7ac-4f2e-9d19-709595c3fec3/Paris%20Agreement%20Sets%20the%20Stage.pdf
- De Groot R. 1987. "Environmental functions as a unifying concept for ecology and economics" *The Environmentalist* 7(2):105-109
- De Jong F. 2015. "Paris forges momentum towards enduring climate action" Available at: http://oneworld.org/2015/12/12/too-weak-too-late-says-climate-justice-campaigners/
- De Moor J. 2017. "COP21: The climate movement's last summit?" *Open Movements*.
 Available at https://www.opendemocracy.net/joost-de-moor/cop21-climate-movement-s-last-summit
- Dearden N. 2015. "Paris agreement: 1.5 degrees in the text, but 3 degrees in reality"
 Available at: http://oneworld.org/2015/12/12/too-weak-too-late-says-climate-justice-campaigners/
- Delmas C. 2014. "Political resistance: A matter of fairness." Law and Philosophy 3:465-488
- DeSombre E.R. 2000. Domestic Sources of International Environmental Policy: Industry, Environmentalists, and U.S. Power. MIT Press. Cambridge

- Dietz M. and Garrelts H. 2014. "Introduction: contours of the transnational climate movements- conception and content of the handbook." In Dietz M. and Garrelts H. (Eds.).
 2014. Routledge Handbook of the Climate Change Movement. Routledge Taylor and Francis Group. London and New York. Pp. 1-16
- Dilling L. and Lemos M. C. 2011. "Creating usable science: Opportunities and constraints for climate knowledge use and their implications for science policy." Global Environmental Change (21):680-689
- Doelle M. 2015. "Loss and Damage in the UN Climate Regime: Prospects for Paris."
 Available at http://dx.doi.org/10.2139/ssrn.2567368
- Doolittle A. 2015. "The best of many worlds: Methodological pluralism in political ecology". In Bryant R.L. (Ed.). 2015. The International Handbook of Political Ecology. Edward Elgar Publishing. Cheltenham/Northampton. Pp. 515-529
- Dougherty L. 2016. "The Roots and Shoots of Just Transition" available at http://breakfreepnw.org/2016/04/19/roots-shoots-just-transition/
- Duai A. 2009. "Value theory in ecological economics: the contribution of a political economy of wealth." *Environmental Values* 18:257-284.
- Duffield M. 2011. "Total war as environmental terror." *South Atlantic Quarterly* 110(3):757-769
- Earth Negotiation Bulletin. 1995. "Joint Implementation" Earth Negotiation Bulletin 12(7)
- Eden S. 2017. "Descarbonizar a Economia Portuguesa Criando Milhares de Empregos."
 Available at http://www.empregos-clima.pt/descarbonizar-economia-portuguesa-criando-milhares-de-empregos-sinan-eden-climaximo/
- Ehrlich P.R. and Ehrlich A.H. 1981. Extinction: the causes and consequences of the disappearance of species. Random House. New York
- Engeman C. 2015. "Social movement unionism in practice: organizational dimensions of union mobilization in the Los Angeles immigrant rights marches." In *Work, employment and society* 29(3):444–461
- Escobar A. 2010. "Postconstructivist political ecologies." In Redclift M.R and Woodgate G. (Eds.). The International Handbook of Environmental Sociology, Second Edition.
 Edward Elgar Publishing Limited. Cheltenham and Northampton. Pp. 91-105

- ETUC. 2016. "ETUC declaration on the Paris agreement on climate change" Available at: https://www.etuc.org/documents/etuc-declaration-about-paris-agreement-climate-change#.VtGw9vmsXww
- European Commission. 2005. *Doing more with less: Green paper on energy efficiency*. Available at http://ec.europa.eu/energy/efficiency/doc/2005_06_green_paper_book_en.pdf
- European Commission. 2015. "Paris Agreement" Available at: http://ec.europa.eu/clima/policies/international/negotiations/paris/index_en.htm
- European Federation of Public Service Unions. 2015. "Climate change, Just Transition and Jobs." Available at: http://epsu.org/a/11643
- European Trade Union Institute (ETUI). 2009. *Benchmarking Working Europe 2009*. European Trade Union Institute. Brussels
- European Union. 2017. "Unemployment statistics." Available at http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics
- Fairhead J. 2001. "International Dimensions of Conflicts over Natural and Environmental Resources." In Peluso N. and Watts M. (Eds.). 2001. Violent Environments. Cornell University Press. Ithaca and London. Pp. 213-236
- Falkner R. 2016. "The Paris Agreement and the new logic of international climate politics." *International Affairs* 92(5):1107-1125
- Fantasia R. and Voss K. 2004. *Hard Work: Remaking the American Labor Movement*. University of California Press. Berkeley
- Farias T.L., Barroso C.A., De Matos J.R., Campos M.H.A.C., Pires A.M.D and Fonseca I.D. 2016. Carris: Relatorio e contas 2015. Available at https://ecoonline.s3.amazonaws.com/uploads/2016/11/relatorioecontas2015_carris.pdf
- Federal Ministry of Environment, Nature conservation, Building and Nuclear Security.
 2015. "Kyoto Protocol." Available at http://www.bmub.bund.de/en/topics/climate-energy/climate/international-climate-policy/kyoto-protocol/
- Fern. 2016. "How are financial derivatives applied in the carbon market?" Available at http://www.fern.org/pt-br/node/5247#footnoteref11_le8cnj9
- Fernandes S. and Girard R. 2011. "Corporations, Climate and the United Nations: How Big Business has Seized Control of Global Climate Negotiations." Available at https://d3n8a8pro7vhmx.cloudfront.net/polarisinstitute/pages/31/attachments/original/1411
 065499/CorporationsClimateandtheUN.pdf?1411065499

- Fiedler M. 2017. "Just Transition: The energy transition will be socially just, or it won't happen." Available at http://www.rosalux.eu/topics/social-ecological-transformation/just-transition/
- Figueiredo E. Fidélis T. and Pires A.R. 2002. "Grassroots Environmental Action in Portugal (1974-1994)." In Eder K. and Kousis M. (Eds.). 2002. Environmental Politics in Southern Europe. Actors, Institution and Discourses in a Europeanizing Society. Springer-Science & Business Media, B.V. Berlin. Pp.197-225
- Finlayson R. 2016. "From Paris to Marrakech: forests, climate change and REDD+ in Southeast Asia." Available online at http://blog.worldagroforestry.org/index.php/2016/12/07/paris-marrakech-forests-climate-change-redd-southeast-asia/
- Fougner T. and Kurtoğlu A. 2011. "Transnational labour solidarity and social movement unionism: insights from and beyond a women workers' strike in Turkey." *British Journal* of *Industrial Relations* 49(2):353-375
- Francioni F. and Bakker C. 2014. "The evolution of the Global Environmental System: Trends and Prospects in the EU and the US" in Bakker C. and Francioni F. (Ed.). *The EU, the US and Global Climate Governance*. Published by Ashgate Publishing. Republished by Routledge Taylor and Francis Group in 2016. London and New York
- Fraser N. 1995. "From redistribution to recognition? Dilemmas of justice in a 'Post-Socialist' age." *New Left Review* I(212):68–93
- Fraser N. 2005. "Reframing justice in a globalizing world." New Left Review II(36):69–88.
- Fraser N. 2013. Fortunes of Feminism: From State-Managed Capitalism to Neoliberal Crisis. Verso. Brooklyn, New York.
- Fuhr L., Schalatek L., Primova R., Verolme H., Santos M. and Bogunovic D. 2015. "COP 21 and the Paris Agreement: A Force Awakened" Available at: https://us.boell.org/2015/12/15/cop-21-and-paris-agreement-force-awakened
- GAIA. 2016. "O GAIA apoia a campanha "empregos para o clima" em Portugal." Available at https://gaia.org.pt/tag/climaximo/
- Gieryn T. F. 2000. "A Space for Place in Sociology." *Annual Review of Sociology* 2000(26):463-496
- Gigounas G., Gunst A. and Webb S. 2015. "The UNFCCC Paris agreement: impressions from the negotiating table for the energy sector and 10 key points about what comes

- next" Available at: https://www.dlapiper.com/en/us/insights/publications/2015/12/the-unfccc-paris-agreement/
- Gilbertson T. and Reyes O. 2009. *Carbon Trading: How it works and why it fails*. Occasional Paper Series. Critical currents N° 7. Dag Hammarskjöld Foundation. Uppsala
- Gilpin R. 1981. War and change in World Politics. Cambridge University Press.
 Cambridge
- Gindin S. 2016 "Beyond Social Movement Unionism: Bringing together weak unions and weak social movements isn't enough. We need a new kind of socialist party." Available at https://www.jacobinmag.com/2016/08/beyond-social-movement-unionism
- Glover L. 2006. "From Love-ins to Logos: Charting the Demise of Renewable Energy as a Social Movement." In Byrne J., and Glover L. (Ed.). 2006. Transforming Power: Energy, Environment and Society in Conflict. Transaction Publishers. New Brunswick
- Gluckman M. 1961. "Ethnographic Data in British Social Anthropology" *Sociological Review* 9(1):5-17
- Gobo G. 2001. Descrivere il Mondo. Carocci. Roma
- Goldmark P. 2013. "Goldmark: Unemployment and climate change both addressed by one plan" Available at: http://www.newsday.com/opinion/columnists/petergoldmark/unemployment-and-climate-change-both-addressed-by-one-plan-petergoldmark-1.5380734
- Gómez-Baggethun E., de Groot R., Lomas P. L. and Montes C. 2010. "The history of ecosystem services in economic theory and practice: From early notions to markets and payment schemes". *Ecological Economics*. Vol. 69, Issue 6(1):1209-1218
- Goodman J. 2009. "From global justice to climate justice? Justice ecologism in an era of global warming." *New Political Science* 31(4):499-515
- Goodman J. 2017. "Social Movement Participation and Climate Change." In Oxford Research Encyclopedia of Climate Science. Oxford University Press. Available at http://climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-340
- Gough J. 2010. "Workers' strategies to secure jobs, their uses of scale, and competing economic moralities: Rethinking the 'geography of justice'." *Political Geography* 29:130-139

- Green Economy Network. 2015. « GEN's One Million Climate Jobs Challenge" Available at http://greeneconomynet.ca/one-million-climate-jobs-challenge/
- Green Economy Network. 2017. "GEN Member Organizations." Available at http://greeneconomynet.ca/about-us/gen-member-organizations/
- Greer I. 2008. "Social movement unionism and social partnership in Germany: the case of Hamburg's hospitals." *Industrial Relations* 47(4):602-624
- Gudynas E. 2016. "Climate Change, the Quadrilemma of Globalization, and Other Politically Incorrect Reactions." Globalizations 13(6):938-942
- Guha R. and Martínez-Alier J. 1997. Varieties of environmentalism: Essays North and South. Earthscan. London
- Gulbrandsen L. H. and Andresen S. 2004. "Influence in the Implementation of the Kyoto Protocol: Compliance, Flexibility Mechanisms, and Sinks." *Global Environmental Politics* 4(4):54-75.
- Gupta A., Visseren-Hamakers I.J., Herold M., Peña-Claros M. and Vijge M. 2012. "Will REDD+ work? The need for interdisciplinary science to address key challenges." *Current Opinion in Environmental Sustainability* 4(6)4590-596
- Gupta R. C. 2012. Energy and Environmental Management in Metallurgical Industries.
 PHI Learning Private Limited. New Delhi
- Gutstein E. and Lipman P. 2013. "The Rebirth of the Chicago Teachers Union and Possibilities for a Counter-Hegemonic Education Movement." *Monthly Review* 65(2). Available at https://monthlyreview.org/2013/06/01/the-rebirth-of-the-chicago-teachers-union-and-possibilities-for-a-counter-hegemonic-education-movement/
- Hamman K. 2003. "European Integration and Civil Society in Spain." *South European Society and Politics* 8(1-2):47-63
- Hampton P. 2015. Workers and Trade Unions for Climate Solidarity: Tackling climate change in a neoliberal world. Routledge. New York and London.
- Hamrick K. and Goldstein A. 2016. Raising Ambition: State of the Voluntary Carbon Markets 2016. Forest Trends' Ecosystem Marketplace. Washington. Available online at http://www.forest-trends.org/documents/files/doc_5242.pdf
- Haraway D. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective" Feminist Studies 14:575–599

- Harding S. 1992. After the Neutrality Ideal: Science, Politics, and "Strong Objectivity."
 Social Research 50(3):567-588
- Harding S. 1995. "Strong Objectivity': a response to the notion of Objectivity question."
 Available
 http://130.58.92.210/Students/phys29_2013/ElectronicReadings/Week%2012/Harding.pdf
- Harlan S.L., Pellow D.N., Timmons R., Shannon E.B. William G.H. and Nagel J. 2015
 "Climate Justice and Inequality." In Dunlap R. E. and Brulle R. J. (Ed.). 2015. *Climate change and Society: Sociological perspectives*. Oxford University Press. New York. Pp. 127-163
- Harrison J. L. 2011. Pesticide Drift and the Pursuit of Environmental Justice. MIT Press.
 Cambridge
- Haskell L. T. 1990. "Objectivity is not Neutrality: Rhetoric vs. Practice in Peter Novick's That Noble Dream." *History and Theory* 29(2):129-157
- Healy H., Lorek S. and Rodríguez-Labajos B. "Environmentalism of the poor" Available at http://www.ejolt.org/2012/12/environmentalism-of-the-poor/
- Healy H., Lorek S. and Rodríguez-Labajos Beatriz. 2015. "Clean Development Mechanism" Available at: http://www.ejolt.org/2015/09/clean-development-mechanism/
- Heynen N and Van Sant L. 2015. "Political Ecologies of activism and direct action politics". In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 169-178
- Holifield R. 2015. "Environmental justice and political ecology". In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 585-597
- Huber M. 2016. "The carbon Tax is doomed: The burden of market-based climate change solutions will fall on workers. We need strong state intervention" Available at https://www.jacobinmag.com/2016/10/oil-fossil-fuel-climate-cap-trade-tax-renewables/
- Icke D. 2004. ...And the truth shall set you free. 21st Century Edition. Available at: http://www.crowhealingnetwork.net/pdf/Icke%20-%20And%20The%20Truth%20Shall%20Set%20You%20Free,%2021st%20Century%20Edition.pdf
- ILO and UNEP. 2012. Working towards sustainable development: Opportunities for decent work and social inclusion in a green economy. International Labour Office. Geneva

- ILO. 2010. Climate change and labour: The need for a just transition. International Labour Office. Geneva
- ILO. 2012a. Global Employment Trends 2012: World faces a 600 million jobs challenge. International Labour Office. Geneva
- ILO. 2012b. *Promoting safety and health in a green economy*. International Labour Office. Geneva.
- ILO. 2015a. "ILO welcomes new climate change agreement committing nations to a just transition and the creation of decent work". Available at: http://www.ilo.org/global/topics/green-jobs/news/WCMS_436322/lang--en/index.htm
- ILO. 2015b. Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Office. Geneva. Geneva
- Inglehart R. 1977. The Silent Revolution: Changing Values and Political Styles Among Western Publics. Princeton University Press. Princeton
- InterAcademy Council 2010. *Climate Change Assessments, Review of the Processes and Procedures of the IPCC*. Available online at http://reviewipcc.interacademycouncil.net/report.html
- International Business Publications. 2016. US Commodity Futures Trading Handbook Strategic Information and Regulatory. International Business Publications. Washington
- International Encyclopedia of the Social Sciences. 2008. "Case Method, Extended."
 Available at http://www.encyclopedia.com/doc/1G2-3045300286.html
- International Energy Agency. 2016. Energy Policies of IEA Countries: Portugal 2016 Review. International Energy Agency. Paris
- International Journal of Labour Research. 2010. *Climate change and labour: The need for a just transition*. International Labour Office. Geneva
- IPCC (Intergovernmental Panel on Climate Change). 2001. Third Assessment Report.
 Working Group II. "Annex B: Glossary of Terms." Available at https://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689
- Irish Corporate Leaders on Climate Change. 2014. *Unlocking opportunity the business case for taking climate action in Ireland: A Report by the Irish Corporate Leaders on Climate Change*. Irish Corporate Leaders on Climate Change. Dublin

- ITF and Global Labor Institute. 2010. *Transport workers and climate change: Towards sustainable, low carbon mobility*. International Transport Workers' Federation (ITF). London
- International Trade Unions Confederation (ITUC). 2009. *Trade unions and climate change*, equity, justice & solidarity in the fight against climate change. Available at https://www.ituc-csi.org/IMG/pdf/climat_EN_Final.pdf
- Ivanova M. 2016. "Good COP, Bad COP: Climate Reality after Paris." *Global Policy* 7(3):411-419
- Jakopovich, D. 2009. "Uniting to win: Labour-environmental alliances." *Capitalism*, *Nature*, *Socialism* 20(2):74-96
- Jamison A. 2010. "Climate change knowledge and social movement theory." Wiley Interdisciplinary Reviews: Climate Change (1):811-833
- Jenkins G. J. 1983. "Resource Mobilization Theory and the Study of Social Movements."
 Annual Review of Sociology 9:527-553
- JISC. 2015a. Annual report of the Join Implementation Supervisory Committee to the Conference of the Parties serving as the meeting of the parties to the Kyoto Protocol. Available at http://unfccc.int/resource/docs/2015/cmp11/eng/04.pdf
- JISC. 2015b. Joint implementation two-year business plan and management plan 2016-2017.
 Available
 at http://ji.unfccc.int/UserManagement/FileStorage/OEXHFSQZG1D89U3YCTRMWJ2P4KI7VB
- Jones S. 2002. "A Woman's Place in on the Picket Line. Towards a Theory of Community Industrial Relations." *Employee Relations* 24(2):151-166
- Joyce D. 2015. "No jobs on a dead planet (Updated)" Available at: http://www.ictu.ie/blog/2015/12/11/no-jobs-on-a-dead-planet-updated/
- Kallis G., Gómez-Baggethun E. and Zografos C. 2013. "To value or not to value? That is not the question." *Ecological Economics* 94:97-105
- Kaninnen M., Murdiyarso D. 2009. Les arbres poussent-ils sur l'argent ? Implications de la recherche sur la déforestation pour les politiques de promotion de REDD. Coll. Regard sur la forêt N° 4. CIFOR. Bogor
- Kay J. 2015. "The failure of atmospheric commodification." Available at: https://libcom.org/library/failures-atmospheric-commodification

- Kenfack C.E. (Forthcoming). Changing environment, just transition and Job creation perspectives from the South: Case study of the 'One million climate Jobs Campaign' of South Africa. CLACSO. Buenos Aires
- Kenfack C.E. 2013. "Perspectives pour une climatopolitique anthropocentrée." In Organisation Internationale de la Francophonie (Ed.). 2013. Enjeux environnementaux et économiques face à la gouvernance mondiale. Col. Regards croisés. Les Presses universitaires de Yaoundé. Yaoundé
- Kenfack C.E. 2015a. "Climate migrants: Victims and actors of environmental violence." Human Welfare Journal 4:11-22
- Kenfack C.E. 2015b. "Changements climatiques et droits humains fondamentaux : Vers une climatopolitique anthropocentrée." In Mahktar Kante A. (Dir.). 2015. Environnement, changement climatique et sécurité alimentaire en Afrique de l'Ouest et du Centre : compréhension des enjeux et pistes pour l'avenir. CODERIA. Dakar. Pp. 37-64
- Kenfack C.E. 2016a. Vulnérabilité humaine et enjeux climatiques internationaux: De la climatopolitique stratégique aux droits de l'homme. Connaissances et Savoirs. Saint Denis
- Kenfack C.E. 2016b. "REDD+ and Participatory Processes in the Congo Basin Forests Countries: A Critical Reading of the Appropriation of the Free Prior Informed Consent" International Journal of Political Science 2(4):18-27
- Kenfack C.E. 2017. "Un million d'emplois pour le climat." Available at http://www.empregos-clima.pt/one-million-jobs-climate-france/
- Keohane R. and Nye J. (Ed.). 1972. *Transnational relations and world politics*. Havard University Press. Cambridge
- Keohane R. and Nye J. 2012. "Power and Interdependence Revisited." *International Organization* 41(4):725-753
- Kill J. 2015. Economic Valuation and Payment for Environmental Services: Recognizing Nature's Value or Pricing Nature's Destruction? A Discussion Paper for the Heinrich Böll Foundation.
- King E. 2015. "Kyoto Protocol: 10 years of the world's first climate change treaty."
 Available at http://www.climatechangenews.com/2015/02/16/kyoto-protocol-10-years-of-the-worlds-first-climate-change-treaty/
- Koch M. 2014. "Climate change, carbon trading and societal self-defence." *Real-World Economics Review* (67):52-66

- Kollmuss A., Schneider L. and Zhezherin V. 2015. *Has Joint Implementation reduced GHG emissions? Lessons learned for the design of carbon market mechanisms*. Stockholm Environment Institute. Working Paper 07. Stockholm Environment Institute. Stockholm
- Koltai K., Nhut T., Masequesmay G., Niedober D.J., Skoog M., Johnson W., Cacanindin A. and Lyons J. B. 2014. "An Extended Case Study Methodology for Investigating Influence of Cultural, Organizational, and Automation Factors on Human-Automation Trust" Available at: http://human-factors.arc.nasa.gov/publications/Koltai_etal_2014.pdf
- Koubo D. 2003. La stratégie environnementale en question (cote d'Ivoire). Harmattan. Paris
- La Viña A.M.G, De Leon A. and Barrer R.R. 2016. "History and future of REDD+ in the UNFCCC: Issues and challenges." In Voigt C. (Ed.) 2016. *Research Handbook on REDD-Plus and International Law*. Research Handbooks in Climate Law series. Edward Elgar Publishing Limited. Cheltenham and Northampton. Pp. 11-29.
- Laclau E. and Mouffe C. 1981. "Socialist Strategy: Where Next?" *Marxism Today* 25(1):17-22
- Lambert R. 1998. "Globalization: Can unions resist?" *South African Labour Bulletin* 22(6):72-77
- Lambert R. and Webster E. 1988. "The Re-emergence of Political Unionism in Contemporary South Africa?" in Cobbett W. and Cohen R. (Eds.). 1988. In *Popular Struggles in South Africa*. James Currey. London. Pp.20-41
- Lamont M. 2002. The Dignity of Working Men: Morality and the Boundaries of Race, Class, and Immigration. Harvard University Press. Cambridge
- Lang K. and Lang G. 1961. *Collective Dynamics*. Crowell. New York
- Latourelle R. and Fisichella R. (Ed.). 1992. *Dictionnaire de théologie fondamentale*. Bellarmin and Cerf. Montréal and Paris
- Le Billon P. 2015. "Environmental conflicts". In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 598-608
- Le Galès P. and Thatcher M. 1995. Les réseaux de politiques publiques: Débats autour de la notion des policy networks. L'Harmattan. Paris.
- Le Prestre P. 1997. *Ecopolitique internationale*. Guérin. Québec

- Leander A. 2013. Strong Objectivity" in Security Studies: Ethnographic Contributions to Method Development. Carlos Alberto Notebooks 301. Available at https://www.carloalberto.org/assets/working-papers/no.301.pdf
- Leff E. 2015a. "The power-full distribution of knowledge." In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 64-75
- Leff E. 2015b. "Political Ecology: a Latin American Perspective." *Desenvolvimento e meio ambiente* 35:29-64
- Lemos, M.C., Morehouse, B., 2005. "The co-production of science and policy in integrated climate assessments." *Global Environmental Change* (15):57–68
- Leonardi E. 2012. *Biopolitics Of Climate Change: Carbon Commodities, Environmental Profanations, And The Lost Innocence Of Use value* (unpublished dissertation). The School of Graduate and Postdoctoral Studies. The University of Western Ontario. Ontario. Available at: http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=2239&context=etd
- Leonardi E. 2015. "For a Critique of Carbon Trading Dogma" Available at: https://entitleblog.org/2015/12/14/for-a-critique-of-carbon-trading-dogma/
- Leonardi E. 2017a. "Carbon trading dogma: Theoretical assumptions and practical implications of global carbon markets." *ephemera: Theory and politics in organization* 17(1):61-87
- Leonardi E. 2017b. "For a Critique of Neoliberal Green Economy: A Foucauldian Perspective on Ecological Crisis and Biomimicry." *Soft Power* 7. (forthcoming)
- Levin K. and Fransen T. 2015. "Insider: Why Are INDC Studies Reaching Different Temperature Estimates?" World Resources Institute. Available at http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates
- Levy M. 2007 "Postmaterialism". In *Encyclopedia Britannica*. Available online at https://www.britannica.com/topic/postmaterialism
- Licker R. and Oppenheimer M. 2013. Climate induced human migration: A review of impacts on receiving regions. Available at http://www.climate-impacts-2013.org/files/wism_licker.pdf
- Lidskog R. and Sundqvist G. 2015. "When Does Science Matter? International Relations Meets Science and Technology Studies." *Global Environmental Politics* 15(1):1-20

- Lier D.C. and Stokke K. 2006. "Maximum working class unity? Challenges to local social movement unionism in Cape Town." Antipode 38(4):802–824
- Lipman P. 2011. "Neoliberal Education Restructuring: Dangers and Opportunities of the Present Crisis." *Monthly Review* 63(3):114-127
- Liverman D. 2015. "Reading climate change and climate governance as political ecologies." In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. *Routledge handbook of political ecology*. Routledge. Oxon and New York. Pp. 303-319
- Liverman D.M. and S. Vilas S. 2006. "Neoliberalism and the environment in Latin America." *Annual Review of Environment and Resources* 31:327-363
- Lohmann L. 2010. "Climate Crisis: Social Science Crisis." Available at: http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/SocSci.pdf
- Lohmann L. 2011. "Capital and Climate Change." Review Essay. *Development and Change* 42(2):649-668
- Lopez S.H. 2004. Reorganizing the Rust Belt: An Inside Study of the American Labor Movement. University of California Press. Berkeley
- MacKenzie D. 2008. "Making Things the Same: Gases, Emission Rights and the Politics of Carbon Markets." Available at:
 http://www.socialpolicy.ed.ac.uk/ data/assets/pdf_file/0018/4860/bottom_line.pdf
- Maharjan S. K., Carling J., and Sherpa L. N. 2012. Training manual on free, prior and informed consent (FPIC) in REDD+ for indigenous peoples. Asia Indigenous Peoples Pact (AIPP) and International Work Group for Indigenous Affairs (IWGIA). AIPP Printing Press Co., Ltd. Chiang Mai. Thailand
- Marcu A. 2016. "Carbon Market Provisions in the Paris Agreement (Article 6): Avoiding
 the trap of carbon metrics. CEPS Special Report 128. Available at http://www.ceps-ech.eu/sites/default/files/SR%20No%20128%20ACM%20Post%20COP21%20Analysis%20of%20Article%206.pdf
- Martin A., Akol A. and Gross-Camp N. 2015. "Towards an explicit justice framing of the social impacts of conservation." *Conservation and Society* 13(2):166-178
- Martínez-Alier J. 1997. "Environmental justice (Local and Global)." *Capitalism, Nature, Socialism* 8(1):97-107
- Martínez-Alier J. 2001. "Mining conflicts, environmental justice, and valuation." *Journal of Hazardous Materials* 86(1):153-170

- Martínez-Alier J. 2002. *The Environmentalism of the poor. A study of ecological conflicts and evaluation*. Edward Elgar. Northampton
- Martínez-Alier J. 2009. "Environmental justice (Local and Global)". Capitalism, Nature, Socialism 8(1):91-107
- Martínez-Alier J., Temper L, Del Bene D. and Scheidel A. 2016. "Is there a global environmental justice movement?" *Journal of Peasant Studies* 43(3):731-755
- Martins A.N. 2017. "Taxa de desemprego cai para 10,5% em novembro." Available at http://observador.pt/2017/01/06/taxa-de-desemprego-cai-para-105-em-novembro/
- Mary Robinson Foundation. 2013. Climate Justice Baseline. Report July 2013. http://www.mrfcj.org/media/pdf/ClimateJusticeBaseline.pdf
- McGuire D. and Scherrer C. 2010. Developing a labour voice in trade policy at the national level. Global Labour University Working Papers 8. Global Labour University.
 Berlin
- Mearns R. and Norton A. 2010. "Equity and vulnerability in a warming world." In Mearns R. and Norton A. (Eds.) Social dimensions of climate change: equity and vulnerability in a warming world. World Bank Publications. Washington. Pp. 1-46
- Mearsheimer J. 1997. The Tragedy of Great Power Politics. Colombia University Press.
 New York
- Merchant C. 1992. *Radical Ecology. The Search for a livable world*. Routledge. New York and London
- Merchant G. E. 2012. "A Return to Expertise? A Proposal for an Institute of Scientific Assessments." In Johnston J. S. (Ed.) 2012. *Institutions and Incentives in Regulatory Science*. Lexington Books. Plymouth. Pp. 199-219
- Meyrowitz, J. (2005) "The rise of glocality. New senses of place and and the global village." In Nyiri K. (Ed.). 2005. A sense of place: The global and the local in mobile communication. Passagen. Vienna. PP 21-30
- Mijin Cha J and Skinner L. 2016. A climate jobs program for New York State. Reversing inequality, combatting climate change: preliminary recommendations. The Worker Institute. New York
- Mijin Cha J. 2015. In Neale J., Spence T. and Ytterstad A. 2015. *Global Climate Jobs*.
 Available at https://globalclimatejobs.files.wordpress.com/2015/09/global-jobs-online-sept-2015-2nd-1.pdf

- Millennium Ecosystem Assessment. 2005. *Ecosystems and Human Well-Being: Synthesis*. World Resources Institute. Washington
- Moody K. 1997. Workers in a Lean World: Unions in the International Economy. Verso.
 London and New York
- Moore J. W. 2011. "Transcending the metabolic rift: A theory of crises in the capitalist world-ecology." *Journal of Peasant Studies* 38(1):1-46
- Morgan J. 2016. "Paris COP 21: Power that Speaks the Truth?" *Globalizations* 13:943-951
- Morgenthau H. 1948. Politics among Nations, the Struggle for Power and Peace. Mc Graw-Hill, Inc. New York.
- Murillo L.M. 2013. "From sustainable development to a green and fair economy: Making the environment a trade union issue." In Uzzell D. and Räthzel N. (Eds.). 2013. *Trade unions in the green economy: Working for the Environment*. Earthscan. London. PP.29-41
- Naples N. A. 2007. "Strong Objectivity" in Ritzer G. (Ed). *Blackwell Encyclopedia of Sociology*. Blackwell Publishing. Oxford
- Nasiritousi N., Hjerpe M. and Linnér B-O. 2016. "The roles of non-state actors in climate change governance: understanding agency through governance profiles." *International Environmental Agreements: Politics, Law and Economics* 16(1):109-126
- National Intelligence Council and the Eurasia Group. 2007. "Non-state Actors: Impact on International Relations and Implications for the United States." Available at https://fas.org/irp/nic/nonstate_actors_2007.pdf
- Newell P. and Paterson M. 2010. *Climate Capitalism: Global Warming and the Transformation of the Global Economy*. Cambridge University Press. Cambridge.
- Newell R.G. Pizer W.A. and Raimi D. 2012. Carbon Markets: Past, Present, and Future.
 Discussion paper. Resources for the Future. Washington
- Newton C.A. and French S. 2003. Science and Partial Truth: A Unitary Approach to Models and Scientific Reasoning. Oxford University Press. Oxford
- Nielsen T. D. 2014. "The role of discourses in governing forests to combat climate change." International Environmental Agreements: Politics, Law and Economics 14(3):265-280
- Nissen B. 2003. "Alternative strategic directions for the US labor movement: recent scholarship." *Labor Studies Journal* 28(1):133–155

- Novelli M. 2003. "Globalisations, Social Movement Unionism and New Internationalisms:
 The Role of Strategic Learning in the Transformation of the Municipal Workers Union of EMCALI," *Globalisation, Societies and Education* 2(2):161-190.
- Nye S.J. 2004. Soft Power: The means to success in world politics. Public Affairs. New York
- O'Connor P. 2009. "Climate change, emissions trading schemes and the profit system" Available at: https://www.wsws.org/en/articles/2009/12/etpo-d21.html
- O'Driscoll D. 2011. "Airbrushing in Just Transition" available at https://notesfrombelow.wordpress.com/2011/05/19/airbrushing-in-just-transition/#_edn2
- O'Neill K. 2009. *The Environment and International Relations*. Cambridge University Press. Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo
- Obergassel W., Arens C., Hermwille L., Kreibich N., Mersmann F., Ott H.E., and Wang-Helmreich H. 2016. Phoenix from the Ashes- An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change. Wuppertal Institute for Climate, Environment and Energy. Wuppertal
- Offe C. 1985. "New Social Movements: Challenging the Boundaries of Institutional Politics." Social Research 52(4):817-868
- Olsen L. 2010 "Supporting a Just Transition: The role of international labour standards". In International Labour Organization. 2010. Climate change and labour: The need for a "just transition. Vol. 2. Issue 2. International Labour Office. Geneva
- Olsen L. and Kemter D. 2013. "The International Labour Organization and the environment: The way to a socially just transition for workers." In Uzzell D. and Räthzel N. (Eds.). 2013. Trade unions in the green economy: Working for the Environment. Earthscan. London. Pp.41-58
- One Million Climate Jobs Campaign. 2011. One Million Climate Jobs: A just transition to
 a low carbon economy to combat unemployment and climate change. Available at:
 http://womin.org.za/images/the-alternatives/fighting-destructive-extractivism/One%20Million%20Climate%20Jobs.pdf
- Palier B. and Surel Y. 2005. "Les trois I' et l'analyse de l'État en action." *Revue française de science politique* 1(55):7-32

- Paterson M. 2014. "Theoretical Perspectives on International Environmental Politics." In Betsill M., Hochstetler K. and Stevis D. (Eds.) 2014. Advances in International Environmental Politics. Palgrave Macmillan. London. Pp. 45-77
- Pechoin D and Demay F. (Dir.). 1989. Petit Larousse en couleur. Larousse. Paris
- Peluso N. and Watts M. 2001. "Violent Environments." In Peluso N. and Watts M. (Eds.).
 2001. Violent Environments. Cornell University Press. Ithaca and London
- People's Protocol on Climate Change. 2008. IBON Primer on Climate Change. IBON International. Quezon City
- Pereira T., Seabra T., Pina A., Canaveira P., Amaro A. and Borges M. 2016. Portuguese
 National Inventory Report on Greenhouse Gases, 1990-2014. Agência Portuguesa do
 Ambiente. Lisbon
- Perez A.C., Grafton B., Mohail P., Hardin R., Hintzen K. and Orvis S. 2016. "Evolution of the environmental justice movement: activism, formalization and differentiation." *Environmental Research Letters* 10:1-12
- Peters G.P., Minx J.C., Weber C.L. and Edenhofer O. 2011. "Growth in emission transfers via international trade from 1990 to 2008." *Proceedings of the National Academy of Sciences*, 108:8903-8908
- Peterson J. 2003. *Policy networks*. Political Science Series 89. Department of Political Science, Institute for Advanced Studies (IHS). Vienna
- Peterson, J. and Bomberg, E. 1999. Decision-making in the European Union. Palgrave Macmillan. Basingstoke and New York
- Pizzorno A. 1990. "Considérations sur les théories des mouvements sociaux." Politix 3(9):74-80
- Podobnik B. 2010. "Building the Clean Energy Movement: Future Possibilities in Historical Perspective". In Abramsky K. (Ed.). 2010. Sparking a Worldwide Energy Revolution: Social Struggles in the Transition to a Post-petrol World. AK Press. Oakland. Pp. 72-80
- Pope Francis. 2015. Laudato Si. [Encyclical Letter on care for Our Common Home.]
 Libreria Editrice Vaticana. Vatican
- Pope Francis. 2016. "Pope's message for the 22nd meeting of the Conference of Parties to the United Nations Framework Agreement on Climate Change (COP22): The fights

- against climate change and poverty are linked" Available at http://press.vatican.va/content/salastampa/en/bollettino/pubblico/2016/11/15/161115b.html
- Portuguese Bishops' Conference. 2003. Responsabilidade Solidária pelo Bem Comum.
 Pastoral Letter. Available at:
 http://www.agencia.ecclesia.pt/noticias/documentos/responsabilidade-solidaria-pelo-bem-comum/
- Poushter J. 2014 "Inequality, joblessness are top threats in 2015, World Economic Forum experts say" Available at http://reports.weforum.org/outlook-global-agenda-2015/top-10-trends-of-2015/2-persistent-jobless-growth/
- Precarios Inflexiveis. "Estatutos Associação de combate à precariedade Precários Inflexíveis."
 Available
 at https://drive.google.com/file/d/0B4rUxvOVeEgxVzM0aTgyVHNKTG8/edit
- Présidence de la COP 21. 2015. Le guide des espaces géneration climat. Available at https://planetevivante.wordpress.com/2015/11/24/cop21-les-espaces-generations-climat/
- Purdon M. 2015. "Advancing Comparative Climate Change Politics: Theory and Method."
 Global Environmental Politics 15(3):1-26
- Purdon M. 2017. "Neoclassical realism and international climate change politics: Moral imperative and political constraint in international climate finance". *Journal of International Relations and Development* 20(2):263-300
- Räthzel N. and Uzzell D. 2013. "Mending the breach between labour and nature: A case for Environmental Labour Studies." In Uzzell D. and Räthzel N. (Eds.). 2013. *Trade unions in the green economy: Working for the Environment*. Earthscan. London. Pp. 1-13
- Räthzel N. and Uzzell, D. 2011. "Trade Unions and Climate Change: The Jobs versus Environment Dilemma." *Global Environmental Change* 21:1215-1223
- Raworth K. 2008. Climate wrongs and human rights: putting people at the heart of climate-change policy. Oxfam Briefing Paper 117. Oxfam International
- Reiss J. 2005. "Social Movement Unionism and Progressive Public Policy in New York City" Just Labour 5:36-48
- Reitan R. and Gibson S. 2012. "Climate change or social change? Environmental and leftist praxis and participatory action research." *Globalizations* 9(3):395-410
- Republic of Argentina. 2006. "Global Climate Change strategies for sustainability of labor in a changing world." Argentina Statement. Nairobi. January 2006. Available at:

http://www.ambiente.gov.ar/archivos/web/trabajo/file/Herramientas2020comunicados/C.p df

- Rey A. and Rey-Debove J. (Ad.). 1977. *Petit Robert 1*. Le Robert. Paris
- Richards J.A. and Boom K. 2014. Carbon Majors Funding Loss and Damage. Discussion Paper. Heinrich Böll Stiftung Publication Series Ecology. Vol. 39. Berlin
- Robbins P. 2012. Political ecology: A critical introduction. Wiley Blackwell. Chichester
- Roberts D. 2010. "Prioritizing climate change adaptation and local level resilience in Durban, South Africa" *Environment and Urbanization* 22(2):397-413
- Roberts J.T. and Parks B.C. 2007. A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy. The MIT Press. Cambridge, Massachusetts
- Robertson M.2015. "Environmental governance: Political Ecology and the State". In Perreault T., Bridge G. and McCarthy J. (Eds.). 2015. Routledge handbook of political ecology. Routledge. Oxon and New York. Pp. 457-466
- Rosemberg A. 2013. "Developping global environmental union policies through the International Trade Union Confederation." In Uzzell D. and Räthzel N. (Eds.). 2013. Trade unions in the green economy: Working for the Environment. Earthscan. London. Pp. 15-29
- Rowlands I. H. 2001. "Major Theoretical Approaches." In Sprinz D. and Luterbacher U. (Eds). International Relations and Global Climate Change. PIK Report 21. Potsdam Institute for Climate Impact Research (PIK). Potsdam. Pp 32-52
- Rudd M. A. 2015. "Scientists' framing of the ocean science–policy interface." *Global Environmental Change* 33:44-60
- Salleh A. 2010. "Climate strategy: Making the choice between ecological modernisation or living well." *Journal of Australian Political Economy* 66:124-149
- Santos B.S and Nunes J.A. 2004. "Introduction: Democracy, Participation and Grassroots Movements in Contemporary Portugal." South European Society and Politics 9(2):1-15
- Santos B.S. 2005. "General Introduction: Reinventing Social Emancipation: Toward New Manifestos." In Santos B.S. (Ed.). 2005. Democratizing Democracy. Beyond the Liberal Democratic Canon. Verso. London
- Santos B.S. 2006a. *The Rise of the Global Left. The World Social Forum and Beyond*. Zed Books. London
- Santos B.S. 2006b. "Globalizations". Theory, Culture and Society 23(2-3):393-399

- Santos B.S. 2008. "The World Social Forum and the Global Left." *Politics and Society* 36(2):247-270
- Santos B.S. 2013. "Alternatives the egg of Columbus in search of author." Public presentation of the first report of the Observatory for Crisis and Alternatives. Held on 11 December 2013 at the Gulbenkian Foundation in Lisbon. available at http://alice.ces.uc.pt/en/index.php/portugal/alternatives-the-egg-of-columbus-in-searchof-author/#sthash.Huwdlhwh.dpuf
- Santos B.S. 2016. "Epistemologies of the South and the Future." *The European South: a transdisciplinary journal of postcolonial humanities* 1:17-29
- Santos B.S. and Carlet F. 2010. "The movement of landless rural workers in Brazil and their struggles for access to law and justice." In Ghai Y. and Cottrell J. (Orgs.). 2010.
 Marginalized Communities and Access to Justice. Routledge. Abingdon. Pp. 60-82
- Santos R. 2015. "Payment for Environmental/Ecosystem Services (PES schemes)"
 Available at: http://www.ejolt.org/2015/02/payment-environmental-ecosystem-services-pes-schemes/
- Sarewitz D. 2010. "World view: Curing climate backlash." *Nature 464:28*. Available at http://www.nature.com/news/2010/100303/full/464028a.html
- Satgar V. 2015. "A Trade Union Approach to Climate Justice: The Campaign Strategy of the National Union of Metalworkers of South Africa." Global Labour Journal 6(3):267-282
- Schlosberg D. 2007. Defining environmental justice: Theories, movements, and nature.
 Oxford University Press. Oxford
- Schmidt L., Delicado A., Guerreiro S. and Gomes C. 2012. "Mudanças climáticas e económicas na costa portuguesa: Percepções das comunidades, justiça social e democratização." VII Congresso Português de Sociologia. Available at http://www.aps.pt/vii_congresso/papers/finais/PAP0829_ed.pdf
- Schmidt L., Gil Nave J. O'Riordan T., and Guerra J. 2011. "Trends and Dilemmas Facing Environmental Education in Portugal: From Environmental Problem Assessment to Citizenship Involvement." *Journal of Environmental Policy and Planning* 13:159-177

- Schmidt L., Gomes C., Guerreiro S. and O'Riordan T.. 2014. "Are we all on the same boat? The challenge of adaptation facing Portuguese coastal communities: risk perception, trust-building and genuine participation." *Land Use Policy* 38:355-365
- Schneider D. K. 2007. Méthodes qualitatives en sciences sociales: Petite introduction aux méthodes qualitatives. Available at http://tecfa.unige.ch/guides/methodo/quali/quali.book.pdf
- Schneider L. and Kollmuss A. 2015. "Perverse effects of carbon markets on HFC-23 and SF₆ abatement projects in Russia" *Nature Climate Change* 5:1061-1063
- Schumacher J. 2015. *Climate change: A question of justice*. The Rosa-Luxemburg-Stiftung. Berlin
- Scipes K. 1992a. "Social Movement Unionism and the Kilusang Mayo Uno." *Kasarinlan [Third World Studies Center, University of the Philippines]* 7(2-3):121-162
- Scipes K. 2003. "Understanding the New Labor Movements in the 'Third World': The Emergence of Social Movement Unionism." *Critical Sociology* 19(2):81-101
- Scipes K. 2014. "Social Movement Unionism or Social Justice Unionism? Disentangling Theoretical Confusion within the Global Labor Movement." *Class, Race and Corporate Power* 2(3, Article 9):1-43
- Searles J. H. 1998. "Analysis of the Kyoto Protocol to the UN Framework Convention on Climate Change." *International Environment Reporter* 21:131-133
- Seidman G. W. 1994. *Manufacturing Militance: Workers' Movements in Brazil and South Africa, 1970-1985*. University of California Press. Berkeley and Los Angeles
- Sen A. 1993. "Capability and Well-being." In Sen A. and Nussbaum M. (Ed.). 2013. *The quality of Life*. Clarendon Press. Oxford. Pp. 30-53
- Sentro. 2015. "Labor groups push for 'just transition' in March for Climate Justice."
 Available at https://sentrolabor.wordpress.com/2015/11/28/labor-groups-push-for-just-transition-in-march-for-climate-justice/
- Serdar A. 2012. "Strategies for revitalizing labour movements: union organizing and building alliances with community in Argentina." *Economic and Industrial Democracy* 33(3):403-420
- Siegele L. 2012. "Loss and damage from the adverse effects of climate change A SIDS view on Africa." Available at https://germanwatch.org/en/4747
- Sikor T. and Newell P. 2014. "Globalizing environmental justice?" *Geoforum* 54:151-157

- Smith N. 1996 "The production of nature." In: Robertson G., Mash M., Tichner L., Bird J., Curtis B. and Putman T. (Eds.). 1996. *Future Natural*. Routledge. London
- Somorin O.A, Visseren-Hamakers I.J., Arts B., Tiani A.M. and Sonwa D.J. 2016. "Integration through interaction? Synergy between adaptation and mitigation (REDD+) in Cameroon." *Environment and Planning C: Government and Policy* 34: 415-432
- Somorin O.A., Visseren-Hamakers I.J., Arts B, Sonwa D.J. and Tiani A.M. 2014.
 "REDD+ policy strategy in Cameroon: actors, institutions and governance."
 Environmental Science and Policy 35:87-97
- Spash C. L. 2016. "This Changes Nothing: The Paris Agreement to Ignore Reality." Globalizations 13:928-933
- Stevis D. 2014. "The Trajectory of International Environmental Politics." In Betsill M.M.,
 Hochstetler K. and Stevis D. 2014. Advances in International Environmental Politics.
 Palgrave Macmillan. Basingstoke and New York. Pp 13-44
- Stevis D. and Felli R. 2015. "Global labour unions and just transition to a green economy." *International Environmental Agreements: Politics, Law and Economics* 15(1):29-43
- Sullivan S. 2009. "Green capitalism, and the cultural poverty of constructing nature as service provider." *Radical Anthropology* 3:18-27
- Sultana F. 2014. "Gendering climate change: geographical insights." *The Professional Geographer* 66(3):372-381
- Summers L. 2014. "Persistent jobless growth" Available at http://reports.weforum.org/outlook-global-agenda-2015/wp-content/blogs.dir/59/mp/files/pages/files/trend-2.pdf
- Sustainlabour. 2011. "The Madrid Dialogue took off". Available at http://www.sustainlabour.org/infocus/PressRelease_18.04.2011.pdf
- Sutcliffe J. 2012. "Labour movements in the global South: A prominent role in struggles against neoliberal globalisation?" *Interface: a journal for and about social movements* 4(2):52-60
- Takacs D. 2014. "Environmental Democracy and forest carbon (REDD+)." *Environmental Law* 44(1):71-134

- Tattersall A. 2005. "There is power in coalition: a framework for assessing how and when union-community coalitions are effective and enhance union power." *Labour and Industry* 16:97-112.
- The Munden Project. 2011. *REDD and Forest Carbon: Market-Based Critique and Recommendations*. Available at: http://www.redd-monitor.org/wp-content/uploads/2011/03/Munden-Project-2011-REDD-AND-FOREST-CARBON-A-Critique-by-the-Market.pdf
- Third World Forum. 2006. "Bamako Appeal." Available at http://forumtiersmonde.net/eu/index.php?option=com_content&view=article&id=88:appel-de-bamako-2006&catid=90&Itemid=115
- Thomson J. 2014. "A History of Climate Justice" Solution 5(2):89-92
- Tilly C. 1978. From Mobilization to Revolution. Reading, Mass. Addison-Wesley
- Tokar B. 2010. "Movements for Climate Action: Toward Utopia or Apocalypse?"
 Available at http://anarchiststudies.mayfirst.org/node/483
- Tokar B. 2013. "Movements for climate justice in the US and worldwide" In Dietz M. and Garrelts H. (Eds.). 2013. Routledge Handbook of the Climate Change Movement. Routledge. New York and London. Pp. 131-146
- Tokar B. 2014. "The Myths of 'Green Capitalism." *New Politics* XIV-4:56. Available at http://newpol.org/content/myths-%E2%80%9Cgreen-capitalism%E2%80%9D
- Touraine A., Wieviorka M. and Dubet, F. 1984. Le mouvement ouvrier. Fayard. Paris
- Trade Unions Congress (TUC). 2008. A Green and Fair Future: For a Just Transition to a Low Carbon Economy. TUC Pamphlet 3. Available at http://www.tuc.org.uk/economic-issues/touchstone-pamphlets/social-issues/environment/green-and-fair-future-just-transition?themeaa=touchstone&theme=touchstone
- Tramel S. 2016. "The Road Through Paris: Climate Change, Carbon, and the Political Dynamics of Convergence" *Globalizations* 13:960-969
- Travay Pou Klima. 2016. "Travay Pou Klima: Workshop on Alternative Transport System and Climate Change." 09 August 2016. Available at https://globalclimatejobs.wordpress.com/category/uncategorized/
- Tschakert P. and Machado M. 2012. "Gender justice and rights in climate change adaptation: opportunities and pitfalls." *Ethics and Social Welfare* 6:275-289

- Turner L. and Hurd R.W. 2001. "Building Social Movement Unionism: The Transformation of the American Labor Movement." In Turner, L., Katz, H.C., Hurd, R.W. (Eds.). 2001. Rekindling the Movement: Labor's Quest for Relevance in the Twenty-First Century. Cornell University Press. Ithaca. Pp.9-26
- UNEP. 2008. *Payments for Ecosystem Services Getting Started: A Primer*. Available at: http://www.unep.org/pdf/PaymentsForEcosystemServices_en.pdf
- UNEP. 2011. "Towards a green economy: Pathways to sustainable development and poverty eradication: A synthesis for policy makers." Available: http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf
- UNFCCC. 1992. United Nations Framework Convention on Climate Change. Available at http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
- UNFCCC. 1998. *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. Available at http://unfccc.int/resource/docs/convkp/kpeng.pdf
- UNFCCC. 2009. FCCC/AWGLCA/2009/8. Negotiating text. Document prepared by the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWGLCA). Available at http://unfccc.int/resource/docs/2009/awglca6/eng/08.pdf
- UNFCCC. 2012. Views and information from Parties and relevant organizations on the possible elements to be included in the recommendations on loss and damage in accordance with decision 1/CP.16. Submissions from Parties and relevant organizations. Available at: http://unfccc.int/resource/docs/2012/sbi/eng/misc14a01.pdf
- UNFCCC. 2015. "Adoption of the Paris Agreement." Available at: http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf
- Union of Concerned Scientist. "The IPCC: Who Are They and Why Do Their Climate
 Reports Matter?" Available at
 http://www.ucsusa.org/global_warming/science_and_impacts/science/ipcc-backgrounder.html#bf-toc-0
- United Federation of Danish Workers and Ecological Council. 2009. Green jobs (Copenhagen). Available at http://www.unep.org/labour_environment/pdfs/unep-labour-env-synergy.pdf

- United Nations Conference on Environment and Development. 1992. "Rio Declaration on Environment and Development." Available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm
- United Nations Environment Program, World Health Organisation, International Labour Organisation. 2007. Labour and the Environment: A Natural Synergy. Available at www.unep.org/labour_environment/PDFs/UNEP-labour-envsynergy.pdf
- United Nations. 2015. *The Millennium Development Goals Report 2015*. United Nations Secretariat, New York.
- University of East Anglia's online course on "Climate justice":
 https://www.futurelearn.com/courses/environmental-justice/steps/31087
- Valentin J. M. 2009. "Copenhague, capitale de la terre: Émergence de la climatopolitique." In Martelly S. and Lacarrière S (dir.). 2009. "Sommet de Copenhague: quand le climat devient stratégique." Available at http://www.affaires-stratégiques.info
- Van Velsen J. 1967. "The Extended-case Method and Situational Analysis." In Epstein A.
 L. (Ed.). 1967. The Craft of Social Anthropology. London: Tavistock. Pp 129-149
- Verheyen R. and Roderick P. 2008. *Beyond adaptation: The legal duty to pay compensation for climate change damage*. WWF-UK Climate Change Program discussion paper. Available at http://assets.wwf.org.uk/downloads/beyond_adaptation_lowres.pdf
- Victor D. 2015. "Climate change: Embed the social sciences in climate policy." *Nature* 520(7545):27-29
- Vira, B. and Adams W.M. 2008. "Institutional Complexity, Biodiversity and Ecosystem Services." Paper presented at "Governing Shared Resources: Connecting Local Experience to Global Challenges", 12th Biennial Conference of the International Association for the Study of Commons, Cheltenham, England, July 14-18, 2008.
- Virela M. 2015. "Climate Justice Groups Respond to the Paris Agreement" Available at: http://oneworld.org/2015/12/12/too-weak-too-late-says-climate-justice-campaigners/

- Visseren-Hamakers I. J., Leroy P. and Glasbergen P. 2012. "Conservation partnerships and biodiversity governance: Fulfilling governance functions through interaction." Sustainable Development 20:264-275
- Von Holdt K. 2002. "Social Movement Unionism: The Case of South Africa." Work, Employment and Society 16(2):283-304
- Wahl A. and Ytterstad A. 2015. "Norway." In Neale J., Spence T. and Ytterstad A. 2015.
 Global climate jobs. Available at: https://globalclimatejobs.files.wordpress.com/2015/09/global-jobs-online-sept-2015.pdf
- Wallis V. 2010. "Beyond green capitalism." Monthly Review: An Independent Socialist
 Magazine 61(09). Available at http://monthlyreview.org/2010/02/01/beyond-green-capitalism/
- Waltz K. N. 1979. *Theory of International Politics*. Waveland Press (2010 reprint). Long Grove. Illinois
- Warner K., van der Geest K. and, and Kreft S. 2013. Pushed to the limit: Evidence of climate change-related loss and damage when people face constraints and limits to adaptation. United Nations University Institute for Environment and Human Security. Bonn
- Waterman P. 1988. "Social Movement Unionism: A Brief Note." Unpublished paper.
 Institute of Social Studies. The Hague
- Waterman P. 1991a. Social Movement Unionism': Beyond 'Economic' and 'Political'
 Unionism. Working Paper 19. International Institute for Research and Education.
 Amsterdam
- Waterman P. 1991b. *Social-movement unionism: A new model for a new world*. Working Paper Series 110. Institute of Social Studies. The Hague
- Webster E. 1987. "The Rise of Social Movement Unionism-The Two Faces of the Black Trade Union Movement in South Africa." University of Witwatersrand. Sociology Department. Johannesburg. (Unpublished paper)
- Weiss, C. H. 1978. "Improving the linkage between social research and public policy." In: Lynn, L.E. (Ed.). *Knowledge and Policy: The Uncertain Connection*. National Academy of Sciences. Washington
- Westman W. 1977. "How much are nature's services worth?" Science 197:960–964.

- Whitington J. 2012 "The prey of uncertainty: Climate change as an opportunity". Ephemera 12(1-2):113-137
- Whyte K.P. 2014. "Indigenous women, climate change impacts, and collective action."
 Hypatia 29:599-616
- Widge K. 2015. "Carbon markets in the Paris Agreement an early holiday gift" Available at: http://blogs.worldbank.org/climatechange/carbon-markets-paris-agreement-early-holiday-gift
- Wieviorka M. 2005. "After New Social Movements." Social Movement Studies 4(1):1-19
- Williams R. 1980. Culture and Materialism. Verso. London
- World Rainforest Movement. 2014. Trade in Ecosystem Services: When 'payment for environmental services' delivers a permit to destroy. Available at: http://www.wrm.org.uy/html/wp-content/uploads/2014/04/Trade-in-Ecosystem-Services.pdf
- Wunder S.2005. *Payments for environmental services: Some nuts and bolts*. CIFOR Occasional Paper No. 42. Center for International Forestry Research. Bogor, Indonesia. A
- Wykes S. 2013. "Tar sands: extreme oil: the wrong road for sustainable development in Africa." In Temper L., Yánez I., Sharife K., Godwin O. and Martínez-Alier J. (Coords.).
 2013. Towards a Post-Oil Civilization: Yasunization and other initiatives to leave fossil fuels in the soil. Ejolt report Na 6. Pp. 113-138
- Wylie A. 2003. "Why Standpoint Matters." in Figueroa R. and Harding S. (Eds.). Science and Other Cultures: Issues in Philosophies of Science and Technology. Routledge. New York. Pp. 26-48
- Yeo S. 2017. "Clean energy: The challenge of achieving a 'just transition' for workers." Available at https://www.carbonbrief.org/clean-energy-the-challenge-of-achieving-a-just-transition-for-workers
- York R. E. A. Rosa A. and Dietz T. 2003. "Footprints on the Earth: The environmental Consequences of Modernity." *American Sociological Review* 68(2):279-300
- Zalta A.N., Nodelman U., Allen C. and Perry J. 2006. "Feminist Social Epistemology" in Stanford Encyclopedia of Philosophy. (With substantive revision of February 13th 2013). Available at. http://plato.stanford.edu/entries/feminist-social-epistemology/#StrObj
- Zatzman G. M. 2012. Sustainable Energy Pricing: Nature, Sustainable Engineering, and the Science of Energy Pricing. Wiley-Scrivener. New Jersey- Massachusetts