Climate Crimes

Climate change and deforestation: a case-study of state-corporate crime in Peru

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Abstract

During the last decades, climate change studies have been focusing more intensely on its anthropocenic essence, as the consequence of production and consumption patterns that require the intensive exploitation of the environment. In line with this school of thought, and new generations of studies on environmental crime, this work aims to present the environmentally and climate-related issues arising from land degradation in the Peruvian Amazon; focusing on those casual mechanisms developed from the collusion between Peruvian-economic policies and new private actors such as transnational corporations (TNCs). Relying on the assumption that: the processes moving the issue of climate change overcome the global space, and can be observed from regional, national or local point of view; this work's purpose is to analyze how a single country as Peru, currently considered of low ecological footprint, could, by means of the definition of national laws (environmentally and economic-related) burden climate change. The analysis focuses on a single case-study identified with the territory within the Northern Ucayali and Southern Loreto regions in Peru, and builds on the theory of state-corporate crime developed in the 1990s by Ronald C. Kramer and Raymond J. Michalowski to define the role of state-corporate relationships in the production of social harms. To show how this relationship is today shaping the globally spread issue of climate change, the analysis of the palm oil industry in Ucayali is presented as main example of a broader phenomenon of transgression and partnership between private and public spheres in Peru. In this optic, the purpose is to give further contributions to the studies of climate change as state-corporate crime, focusing on the analysis of those territory, as the Amazon, whose preservation has been identified as mayor tool against global warming and which is instead harmed by the relation between private and governments interests.

Keywords
Peru, Amazon, climate change, environmental crime, state-corporate crime, palm oil industry, indigenous peoples.
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1. Introduction

Climate change can be considered today the biggest socio-political challenge for modern governments, and one of the most harmful threat for vulnerable territories and populations. Climate change has already started to cause environmental and social problems that threaten ecological sustainability and jeopardize human security, inducing migration, social conflicts, struggles over natural resources and transnational environmental crimes (Tekayak, 2016). Latin America is one of the global regions which is suffering the most from global warming. Flooding, hurricanes, periods of drought, desertification, forest fires, melting glaciers and natural phenomena such as El Niño Southern Oscillation (ENSO), are leading part of the region to socio-economic degradation and cultural, environmental and human losses. The most subjected are those with less resources or who, as indigenous populations, mostly depend on an healthy environment. In addiction, many Latin American countries are overcoming today the “north-centric” origin of climate change. The rapid escalation for economic development of some countries (as Peru and Brazil) led to embrace capitalistic models and turned themselves into active contributors of environmental-related issues and global warming\(^1\), exacerbating an already precarious context.

Despite the solidity of the scientific proofs on the anthropocenic\(^2\) nature and the effects of global warming, there is still a strong discordance on the topic, which seems built more on a political-economic level than a scientific one (Lynch et al. 2010: 218). Accordingly, if the process of global warming faced today is the result of a constant increase of the greenhouse gases (GHG) level in the atmosphere due to production and consumption patterns that require the intensive exploitation of natural resources, it is in the intersection of these elements that it is possible to find its political-economic framework. While the last forty years registered the intensification (on paper) of the efforts to mitigate and adapt to climate change by the interna-

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\(^1\) The concepts of global warming and climate change are used in this work according to Rob White's (2012) conceptual explanation, which identifies the former with the globally spread process of rising temperature over a short period of time; while, the latter describes the effects of this rise in temperature (White 2012: 2). Conceptually, climate change is then presented as the main consequence of the anthropocenic product of global warming.

\(^2\) With the term anthropocenic are meant all the processes and effects of human activity which contrast with natural ones, especially in natural and environmental science (Fernández Durán, R., 2011. *El antropoceno. La crisis ecológica se hace mundial*. Bilbao: Virus Editorial). To talk about the anthropocenic nature of climate change refers to the proven connection between the increase of global warming and the capitalistic patterns of production.
tional community of states\(^3\), it clearly emerged that to face the problem would mean drastically reduction, or banning of fossil fuel energy, deforestation, mineral exploitation and many more tools underpinning capitalistic economies. Thus, it is in the interconnection of economic interests and (failed) political decisions that the conceptualization of climate change as crime\(^4\) takes form.

1.1. Aim and Research Questions

This dissertation aims to present the environmental and climate-related issues arising from intensive land degradation due to the collusion between Peruvian-economic policies of land-exploitation, and new private actors, as transnational corporations (TNCs), operating in the Amazon rainforest. Although there have been numerous researches on climate change from environmental or economic prospective, this dissertation builds on the statement that its tremendous impacts imply a re-conceptualization of environmental-related criminality (White 2016). Toward the exploration of those political-economic causal mechanisms behind it, the analysis focuses on a single case-study within the Northern Ucayali and Southern Loreto regions in Peru, and builds on the theory of state-corporate crime developed in the 1990s by Ronald C. Kramer and Raymond J. Michalowski to define the role of state-corporate's relationships in the production of social harms. To show how this relationship is today shaping the globally spread issue of climate change, this work presents the analysis of the palm oil industry in Ucayali as main example of a broader phenomenon of transgression and partnership between private and public spheres in Peru.

The reported relationship between large-scale palm oil plantations, deforestation, environment exploitation, climate change and Peruvian political economy is here based on the two research questions:

1. How can the definition of national laws burden climate change?

\(^3\) The terminology “International community of states” is commonly used in geopolitics and international relations to refer to a broad group of people and governments of the world, implying the existence of a common point of view towards specific issues, as human rights or climate change. Activists, politicians, and commentators often use the term in calling for action to be taken (Wikipedia, 2017. International community. [online] Wikipedia. Available at: https://en.wikipedia.org/wiki/International_community [Accessed 25 May 2017]), as in the case here presented.

\(^4\) According to modern criminology, when studying state or corporate crimes of the globalization age (as the wrongdoing of transnational corporations (TNCs) in (developing) hosting countries), the law of nation-state appears as a poor toll for the analysis, and a new conceptualization of crime should be taken into account. Indeed, the focus should move from the simple violation of law toward the transgression of international standards of conduct that create social harms, originated through both legal and illegal actions (Kramer & Michalowski 1987). See section 2.1. of this dissertation for further information.
2. Why could climate change be considered a case of state-corporate crime in Peru?

This dissertation will answer to these questions to develop a solid base for deeper and future studies on those criminogenic relationships between state and corporations, promoter of the environmental crime of climate change in the Peruvian Amazon rainforest.

1.2 Disposition

This dissertation is below structured in six main chapters. While the current one outlines the introductory presentation of the topic, the following and second chapter presents the theoretical frameworks underpinning this work, which includes: the theory of state-corporate crime developed by Kramer and Michalowski and their integrated theoretical model; and the previous literature, that introduces fundamental studies on the conceptualization of climate change as state-corporate crime, and some correlated environmentally-related issues. The third chapter describes the methodological approaches and the research's tolls adopted in this study, furthermore presenting issues of validity, reliability and the delimitations faced during both fieldwork and the empirical analysis of the collected data. The fourth chapter is aimed to present and explain the case-study, and it is structured to highlight: the impact of climate change in the region under analysis; the economic and environment-related policies adopted by Peruvian governments during the past decade; the local environmental degradation due to palm oil industry; the harmful relationship between public and private actors of the sector; and finally the case of the Melka Group and the struggle of the indigenous community of Santa Clara de Uchunya in Ucayali. The background shown here makes the base on which to build the analysis, developed in the fifth chapter, on the relationship between Peruvian state and the Melka Group, by means of the theoretical model of state-corporate crime. Furthermore, this chapter introduces the explanatory study of the conceptualization of climate change as state-corporate crime, building on the case of palm oil industry's environmental damages (forest deforestation and pollution) in the Peruvian region of Ucayali. Finally, the conclusive chapter will develop a short lead between the research questions and the results obtained through the analysis, keeping open for further insights.

2. Theoretical Framework

This chapter presents the theory of state-corporate crime developed by Ronald C. Kramer and Raymond J. Michalowski in 1990, which connects the injurious relationship between states agencies and private corporations in the era of globalization. Aimed toward an explanatory analysis of the conceptualization of climate change as state-corporate crime in Peru, the study focuses here on the emerging processes and contemporary essence of this theoretical approach. The presentation of both concept and theory of state-corporate crime aims to show how the new globalization order, and the emergence of new players (such as TNCs)6 shaped the study of corporate and state crimes, putting into question the tools of analysis used until then. The integrated theoretical model developed by the two scholars is here presented and re-adapted toward the analytical chapter of this dissertation. Finally, the second section on the previous research presents five main studies on environmental crime, from which few key concepts, and analytical points of view will emerge.

2.1. Theory of state-corporate crime

The theory of state-corporate crime was developed in the early 1990s by the collaboration of Michalowski and Kramer, but it owns much to the work of Richard Quinney (1970), and his incentive to bring the focus of criminological studies back on the corporate organizations. Despite Quinney's focus on how some behaviors come to be defined as crime, while Michalowski and Kramer focus instead on 'how certain behaviors … come to be understood as not-crime, either because they are not named as such by law or are not treated as such by those who administer and enforce the law, regardless of the social harm these behaviors cause' (Kramer et al. 2002: 266), the questions study are to be connected. From Quinney's analysis of corporate crime, 'we recognize that the primary function of the political state in the United States is to secure and reproduce the process of capital accumulation, the legal/justice system on which the state rests and reflects the will of economic and political elites' (Quinney 1977 in Kramer et al. 2002: 267). Coming out from this analysis is a capitalist world of economical interests, where the profits of a stronger elite, composed of private and public actors (state actors), forge laws at personam, manipulating the juridical system, increasing the chances of social harms, and simultaneously decreasing those of being criminalized. Some years later, with

6 The analysis of TSCs plays in these years a fundamental role for criminology studies, due to the intense spread of agencies of private policing, facilitate by the emergent transnational capitalist activity in high-risk regions from the 1970s (O'Reilly, 2010).
the stability of neoliberal revolution and the new global post Cold-War order, this historical awareness became roots for the development of the theory of state-corporate crime.

The concept of state-corporate crime was previously introduced in Kramer and Michalowski's (1987) groundbreaking study on the conduct of transnational organization. While corporate crimes have been studied almost exclusively at the level of nation state, that study highlights the need for a theoretical step forward to cross nation-state borders and cover a transnational space. Furthermore, if the economic relationship between developing and developed countries had been profoundly examined by the dependency theory, it was felt that a deeper study of the regulatory adaptation, or the pressures allowing these relationships, was missing (Kramer & Michalowski 1987: 39). Socially-injurious actions by TNCs in hosting countries produced important sociological questions, as those concerning the conceptualization of crime and corporate crime. Kramer and Michalowski's study is here groundbreaking because it questions the validity of national laws as departure point for the identification and analysis of corporate crime in the new global order. According, 'criminologists should not limit their investigations to categories set up by the criminal law, because these categories do not arise intrinsically from the nature of the subject matter, but instead, reflect the character and interests of those groups in the population which influence legislation' (Thorsten 1938, quoted in Michalowski & Kramer 1987:45). The statement that the law of nation-state is a poor tool for the analysis of corporate crime is not new in the criminology field, but it is here aggravated by modern researches on TNCs that engages in practices that, if illegal in their home nations, could be legal in a number of host nations. The focus is then moved from the simple violation of law, toward the transgression of international standards of conduct that create social harms, originated through both legal and illegal actions. It is indeed moving beyond national laws that we can begin to study the transgressions that arise in the space between national legal systems.

Corporate transgressions by TNCs encompass any action in pursuit of corporate goals which violates national laws, or international standards such as codes of conduct for TNCs developed within the U.N. Or which results in social injury analogous in severity and source ti that caused by corporate violations of law or international standards (Michalowski & Kramer 1987: 47).

7 The dependency theory arose as theoretical answer to the socio-economic stagnation of Latin American countries in the twentieth century. Developed by few Latin American scholars of social sciences, the dependency theory identifies the roots of disparities, and the inflamed processes of dependency between developed and developing countries, into the economic and political arrangements of capitalism (Wikipedia, 2016. Teoria della Dipendenza. [online] Available at: https://it.wikipedia.org/wiki/Teoria_della_dipendenza [Accessed 14 February 2017]).
In their research for an alternative framework which could allow a less controversial analysis of such crimes, Michalowski and Kramer turned toward to the prospect that the better way to face this theoretical challenges would be taking for grounded the existence of moral preferences in every level of analysis, and employ a critical reflexivity approach, which provides a 'theoretically-grounded way to expand the scope of study beyond the limits of the law, and to incorporate a positive commitment to the reduction of social injuries by corporate actors', questioning rather than accepting those validity claims that either the law or other conceptions of human rights treat non-problematic (Michalowski & Kramer 1987: 46-47).

The study of TNCs crimes, and the awareness that many examples of new forms of injurious corporate actions were globally emerging (often faster than their official recognition as such) made it urgent to restore the theoretical approach through which confront these new global issues. The theory finds its primary source in the case-study of the space shuttle Challenger disaster. On January 1986, the United States space shuttle Challenger exploded causing the death of six astronauts and the first civilian on space, the schoolteacher Christa McAuliffe. While the official version called for a technical accident – 'the failure of the O-ring seal in a field joint of a solid rocket booster' (Kramer 1992: 238) – pouring the entire accusation of negligence on the governmental agency National Aeronautics and Space Administration (NASA), the deeper analysis made by Kramer the same year of the explosion, blamed for a predictable crime arise by the relationship, and political economic interests, developed between NASA, and the private business corporation Morton Thiokol Inc. (MTI). To make the accusation evident, Kramer analyzed the 'historical, political and organizational contexts within which the social actors of NASA and MTI were operating' (Kramer, 1992:238). The external political pressure on NASA, summit to internal motivation of competitive and economic prestige, created an 'unreasonable launch rate schedule which placed enormous goal attainment pressure on the organization' (Kramer, 1992:239). For such reasons, despite informed on the internal deficiency, they decided to keep flying in concurrence with MTI's top brass (Kramer 1992: 239). The case-study of the Challenger disaster, was the first work officially identified as an instance of state-corporate crime, giving credits to the theoretical model developed by Kramer and Michalowski some years after the explosion. As will be explained below, this case-study confirms the hypothesis that crime at organizational level result from the interaction of pressure for goal attainment, perceived attractiveness or availability, and the absence or negligence of social control.
Following this study, at the annual meeting of the American Society of Criminology in Baltimore of 1990, Kramer and Michalowski presented the first publication introducing an integrated theoretical model for the analysis of state-corporate crime (Kramer et al. 2002). The study started from the awareness that until then, studies on corporate crime had been characterized by one insight and one more important deficit: the acknowledgment that corporate crimes are form of organizational deviance; the failure in recognizing the historical and dynamic base of such interdependence between state and private corporations. Thus, to be clearer, 'modern corporations in the United States could not have developed, nor could it currently function, without the legal, economic, and political infrastructure provided by governments' (Sklar 1988 in Kramer et al. 2002: 270). It is here demonstrated impossible to reach a full understanding of any subject if leaving aside from the analysis the interaction between the different levels behind such deviant behaviors. Furthermore, according to Kramer et al. (2002: 271) such interorganizational relationship can develop as state-initiated or state-facilitated in relation of the role assumed by the state as promoter or partner of the harmful behavior.

In its previous conceptualization, state-corporate crime was defined as:

An illegal or socially injurious social action that is the collective product of the interaction between a business corporation and state agency engaged in a joint endeavor. These crimes involve the active participation of two or more organizations, at least one of which is private and one of which is public. They are the harmful result of an interorganizational relationship between business and government (Kramer et al. 2002: 269).

As mentioned before, the collaboration of the two authors for the meeting in Baltimore, introduced not only the revision of the concept of state-corporate crime, but also an integral theoretical framework. Until then, the analysis of corporate crime had been carried on through the levels of three major theoretical approaches: the differential association theory (individual level); the organizational theory (institutional level); and the connection between crime and the political and economic structure of capitalism (social level, or political economy). The innovative work of Kramer and Michalowski unified these three levels of analysis into one single theoretical framework.
Table 1: Integrated Theoretical Model of State-corporate Crime

<table>
<thead>
<tr>
<th>Levels of analysis</th>
<th>Catalyst for Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Opportunity</td>
</tr>
<tr>
<td>Institutional</td>
<td>Social movements</td>
</tr>
<tr>
<td>Culture of competition</td>
<td>Availability of illegal means</td>
</tr>
<tr>
<td>Economic pressure</td>
<td>Access to resources</td>
</tr>
<tr>
<td>Organizational</td>
<td>Opportunity</td>
</tr>
<tr>
<td>Corporate culture and goals</td>
<td>Subcultures of resistance</td>
</tr>
<tr>
<td>Creation of illegal means</td>
<td>Normalization of deviance</td>
</tr>
<tr>
<td>Interaction/Individual</td>
<td>Operationality of Control</td>
</tr>
<tr>
<td>Individual goals</td>
<td>Obedience to authority</td>
</tr>
<tr>
<td>Perception of availability &amp; attractiveness of illegal means</td>
<td>Separation from consequences</td>
</tr>
</tbody>
</table>

Source: Adapted from Kramer et al. 2002: 274.

The integrated perspective shows that the structure, dynamics, and cultural meaning associated with a capitalistic model in any particular society will influence goals and means of both corporations and the state; the organizational level links the internal structure of specific economic or political units with the external political and economic environment, showing, at the same time, how the actions of individuals, internal these same units, are shaped by the requirements of their positions; the differential association level, instead, focusing on individuals, enables us to identify the reality of the symbolic world coming out from the social interactions within organizational spaces. Furthermore, the two scholars linked these three levels of analysis with three catalysts for actions: motivation or performance pressure; opportunity structure; and the operationality control. 'The integrated model is based on the hypothesis that criminal or deviant behavior at the organization level results from a coincidence of pressure for goal attainment, availability and perceived attractiveness of illegitimate means, and an absence of effective social control' (Kramer 1992: 217): (1) as the emphasis on goal attainment of political-economic institutions, organizations and individuals grows, corporations, and states become more vulnerable to undertake organizational deviance; (2) organizational deviance are more high, or possible to occur, where legitimate means are scarce relative to goals; (3) the presence, absence or negligence of social control arise the possibility of deviant behaviors (Kramer et al. 2002).

If the analysis of state-corporate crime shows how state and corporate interests can join to produce social injuries, “more research is needed on both types of state-corporate crime (state-initiated and state-facilitated) as both the theoretical models and conceptual frameworks were designed to be flexible analytical tools for scholarly inquiry” (Kramer et al. 2002: 278).
Successive scholars will overcome the model not only through new case studies, rather expanding the framework of analysis for corporate crime.

2.3. Previous researches on environmental crime

While the literature addressing the issue of climate change has reached high levels of study in different natural disciplines yet during XIX century, the interest of social sciences, as criminology, has recent origins. Despite this latest nature, studies on environmental crimes have been growing in the last decades. Internal to the scientific recognition of the social weight of deviant behaviors which affect basic human rights, the study of climate change as one of the biggest environmental crime in history has recently crossed the study of state and corporate crimes. Often more scholars are aimed to exam the anthropocenic production, the failed mitigation and political denial of climate change in light of the cooperation and economic shared interests between states and corporations. Intent of this section is to: analyze the main researches on environmental crime, which conceptualized climate change as state-corporate crime; and identify the key concept invested in the analysis.

Penny Green, Tony Ward and Kirsten McConnachie (2007), drawing on recent works on state crime, build an analysis of the illegal logging in Tasmania on the conceptual discordance between “legality” and “illegality”, to demonstrate how governmental institutions act toward the protection of private interests, while civil society emerges as only effective regulatory actors. Arguing that illegal logging and trade in timber are today the most economically significant international environmental crime (which contributes to deforestation, biodiversity destruction, threat of species and the hast of climate change), and despite the different laws concerning them, there are still problems accepting the more conventional meaning of “legality” as criterion of criminality, or means to contain the deviant behaviors. This study is important precisely because it challenges the legal value of national laws. According to Green et al. the socially contested legitimacy of state law, contradictory and ambiguous legislations, and the lack of enforcement make of the identification and quantification of illegal activities a difficult work. 'Since most serious crime is carried out by or with the complicity of states, how can we use the criminals own definition of “crime”?' (Green et al. 2007: 97). Building on a previous proposal of state crime as 'organizational deviance by state agencies that not only violate human rights, but also violate norms with which the agency in question was under significant pressure to conform' (pressures coming from institutional law enforcement, domestic civil society, international organizations or other states) (Green et al. 2007: 98), the
authors extended this definition to environmental crime. According to them 'the legality of such activities, far from rendering them innocent, can be seen as an indication of state collusion, thus bringing the activities of logging companies within the concept of state-corporate crime' (Green et al. 2007: 98). Illegal logging is a state-corporate crime in the moment that it arises from a mutual reinforcement between state agencies and corporations, each of which is pursuing its organizational purposes. In Tasmania, the government 'has not only sanctioned the regulatory capture of the Forest Practices Board/Authority and squandered Tasmania's greatest natural resource, but it has also fostered a set of explicitly deviant practices that have resulted in concealment, denial, and redefinition' (Green et al. 2007: 103).

In 2010, Michael Lynch, Ronald G. Burns and Paul B. Stretesky made a step further and directly conceptualized climate change as state-corporate crime through the analysis of the politicization of global warming under the Bush administration. The examination of the political attempt to refute climate change science and the stipulation of economic and environmental policies to deny it, emerge here as a structured state-corporate strategy built on a wide-spread level of collusion between the Bush Administration and the corporate sector. This work (Lynch et al. 2010) was developed by means of three interconnected levels of analysis: the presentation of the scientific proof of climate change; the analysis of the different state-initiated policies impacting global warming and aimed to secure private interests; corporations strategies to reach governmental strategic roles, and obstruct climate change science. Despite the scientific evidence on climate change, there continues to be controversy concerning this topic, but it must be clear that the disagreements are more political than scientific (Lynch et al. 2010: 218). According to Lynch et al. 'the G.W. Bush administration's stance on the environment and global warming became evident from the moment he took office' (Lynch et al. 2010: 219). Taking into account elements such as the high anti-regulatory approach to global warming fostered by Bush; the huge number of key positions held in Bush's Cabinet by former fossil fuel sectors lobbyists; the openly environmentally-hostile politic emerged during international meetings for climate change mitigation (Bush's administration was the only missing signature in the Kyoto Protocol in 1997); or again, the pressure to boycott climate change researches; it clearly emerges how the state promoted corporate interests instead of reaching a problem-solving for the tremendous threats of global warming (Lynch et al. 2010). On the other side, the corporate effort to undermine global warming involved two strategies: fund and create organizations that
produce myths about the existence of global warming, as the Global Climate Science Team (GCST) created by ExxonMobil and several other corporations and private actors; design structured deviant activities of deceit, corruption and crime to forestall governmental actions on global warming. Thus, the 'story of global warming as a state-corporate crime' proves how political and economic powers merged to undermine science and to promote economic interests over public ones; furthermore, it highlights the normalization of state-corporate deviant intersections (itself a form of deviance) which undermine the broader principles of democracy, and which should deserve special care by future studies aimed to examine in depth the issue of climate change as a state-corporate crime (Lynch et al. 2010: 230).

In 2010, the same year Lynch et al. undertook their analysis on the politicalization of global warming, Rebecca S. Katz (2010) developed a model to explain corporate-state crimes in the chemical industry, built on Kramer and Michalowski's model. On the stage of the recent economic crisis, the proposal of Katz comes from the hypothesis that the corporation has become the initiator of corporate-state crime, managing and regulating state's behaviors: 'corporate-state actions aim to increase economic and political hegemony resulting in environmental and high cancer mortality rates' (Katz 2010: 295-296). To validate the concept of corporate-state crime Katz analyzed the criminal activities of Dow Chemical, a transnational corporation of chemical manufactures repeatedly accused of international crimes against humanity. The focus based on specific cases of wrongdoing, such as the sterilization and injures of thousands of Central American banana workers by the pesticide Nemagon, produced in the late 1950s by Dow and Shell, and commercialized from the 1960s. If both companies were aware of the harms of a long exposure to the pesticide yet at that time, only in 2003 a Nicaraguan court ordered Dow to pay a compensation of US$489 million to 450 workers. As it emerge from the many case studies presented by Katz in this work, Dow has maintained a long-term, mutually rewarding, symbiotic relationship with different governments 'in order to accumulate political and economic hegemony under the guise of

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8 The term “symbiotic” was introduced in criminology by the work of Conor O'Reilly (2010) The Transnational security consultancy industry. A case of state-corporate symbiosis. The concept of symbiosis was borrowed here from natural sciences, delineating a fluid and ongoing relationship between two organisms with connected goals, or better, where the benefit of one side will automatically bring benefits for the other side. 'Borrowing the analytical framework of symbiosis from natural sciences provides a productive mechanism for theorizing state-corporate relationships within transnational policing' (O'Reilly 2010: 197). Through the conceptualization of such a theoretical concept O'Reilly's intent was to put light on the dominant influence of the ongoing relations between security interests arose within transnational policing. Accordingly, the high economic and geopolitical interests intrinsic to the new global order facilitate the fluid and largely informal connection of governments and private business in the field of security, conceptualized by O'Reilly as state-corporate symbiosis (O'Reilly, C., 2010. The transnational security consultancy industry. A case of state-corporate symbiosis. Theoretical Criminology, 14(2): 183-210).
national security and international development assistance resulting in transnational corporations not being held accountable for numerous environmental crimes (Katz 2010: 305).

In 2013, Ronald C. Kramer conceptualized the political failure of US governments to mitigate GHG emissions, and the socially organized denial of climate change that shape that failure, as state-corporate crime of omission. Key element of this study is the lack of an international body of law surrounding the issue of climate change. Accordingly, ‘there is currently no established body of international or domestic law that offers a legal framework to bring these harms within the boundaries of criminology’ (Kramer 2013: 156). Despite the proposed recognition of ecocide\(^9\) as international crime to the United Nations, recently made by the British lawyer Polly Higgins; and the proposal to include GHG into the Montreal Protocol (1987), which has been successful in eliminating the hydrofluorocarbons that damage the ozone layer; the lack of a legal framework has a huge weight on the legal recognition, and criminalization of harmful behaviors against the environment. What is needed, to take environmental harms under analysis, 'is a conceptualization of harm that goes beyond conventional understanding of crime' (White 2011 in Kramer 2013: 156). According to Kramer, the anthropogenic nature of global warming, and its ongoing catastrophic effects, appear as one of those situations where the international political community should assume the duty to intervene but deliberately fails. However, the failure to pass legislation to address climate change must be understood as the outcome of long relationships and conflicts among carbon-intensifying corporations, carbon-reducing industries, political organizations of workers dependent on these industries, lobbying firms, banks, regulatory bodies, and so on.

The state-corporate crime that result in catastrophic climate change are rooted in political and economic arrangements. They are caused by a set of broader structural and cultural forces within the global political economy. The continued “criminal” emission of GHG in much of the world arises from the global dominance of a predatory corporate capitalistic economic system and the popular desires it stimulates\(^10\), protected by state economic and/or military actions against any nations that might seek to pursue policies and practices that contradict the interests of that system (Kramer 2013: 159).

After a sharp analysis of the historical failure on climate change mitigation by US

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\(^9\) The concept of ecocide refers to the damage, destruction or loss of ecosystem(s) in a given territory, caused by human or other agencies, to such an extent that the standard running of life of the inhabitants of that territory is threaten or diminished (Higgins et al. 2012, in Tekayak 2016)

\(^10\) Kramer is here referring to the cultural ideologies of “growth fetishism” and consumerism (Kramer 2013: 159).
governments, Kramer focused on the political obstructionism staged by the US Republican Party. The deniers understand that to achieve mitigation and reductions a radical reordering of the economic and political systems at the heart of the global capitalist system will be required. Through the effort to impede governmental actions that would force the fossil fuel industry to make changes that would reduce emissions, these processes, which brought political corruption to a new high level, produced a large amount of ideological propaganda built on lies. 'In a very basic and fundamental way then, political economy stands at the heart of the state-corporate crimes of climate change denial and the failure to mitigate global warming' (Kramer 2013: 166).

In 2014 Elizabeth Bradshaw connected the fields of environmental crime and state-corporate crime, developing the concept of state-corporate environmental crimes, which helps recognizing the fact that many environmental crimes are the result of state and corporate interactions, rather than just on one them. One year later (2015) Bradshaw examined the historical role US federal governments had in shaping the crimogenic conditions of the offshore oil drilling industry that resulted in the 2010 Gulf of Mexico oil spill. Building on the integrated theoretical model of state-corporate crime, this study explored the industry as a level of analysis, and introduced the concept of “crimogenic industry structures” (Bradshaw 2015). The organizational perspective of the new level of analysis would help future scholars moving beyond isolated case studies of state-corporate crime to reach a 'systemic understanding of how the type, severity and frequency of harm varies between industries across time' (Bradshaw 2015: 379). Building on the assumption that an industry is shaped by numerous organizational units in competition for the same resources and customers, and affected by multiple historical and political-economic factors, this new level of analysis (located between the institutional and organizational levels of Kramer and Michalowski integrated theoretical model) captures the unique inter-organizational relationships of each industry. Even more if the focus is reversed on the environmental harms caused by industries in the contemporary neoliberal era, where both 'state and corporations are working toward shared goals of privatization and private capital accumulation, often at the expense of workers rights, environmental protection and public health and safety' (Bradshaw 2015: 381). The analysis of US historical processes and policies highlighted the lack of and cuts in funding of regulatory agencies; high-level of collusion and corruption; and the fusion between employees of the Minerals Management Service (MMS), the governmental agency in charge of regulation, leasing and royalty collection of duties from fossil fuel and mineral extraction
industries working on the Outer Continental Shelf (OCS), and the oil industry.

When corruption and environmental degradation have become the *status quo* within the culture of an industry, deviance has moved beyond normalization to the point of institutionalization. Due to this, the state-corporate arrangements of the offshore oil industry must fundamentally be viewed as a criminogenic industry structure (Bradshaw 2015: 391).

Summing up, the environmental disasters caused by the operation of the US offshore oil industry are symptomatic of a broad criminogenic relationship between the federal government and the oil industry (*in*)formally institutionalized.
3. Methodology

For the analysis of the harmful role of the profit-oriented relations between state and private corporations that lead to the conceptualization of climate change as state-corporate crime, this work resorts to the qualitative case-study methodological approach, and builds on the data collected during a five months fieldwork in Pucallpa, Peru, and some secondary resources. The case-study presented regards the geographical area of Southern Loreto and Northern Ucayali, in the Peruvian Amazon forest, and focuses on the environmental and socio-economic issues growing by the deals and means of palm oil industry, deforestation and the impact of climate change. More specifically, the case-study comprehends the area around three Shipibo communities (Paoyhan, Calleria, Santa Clara de Uchunya), where the interviews were conducted, or about which data were collected concerning climate change and palm oil plantations issues. Following the standard model of a single case-study, this method is here used to elucidate those mechanisms, intrinsic the political-economic sphere of modern Peru, shaping the environmental degradation of the area in analysis. As deepened below, the increasing presence in the territory of such industry have been developing under the protection of neoliberal policies (as a matter of national interest) causing tremendous losses to the nature and local communities (especially indigenous), as threats of human and environmental rights. Additionally, the same profit-oriented relationships between state and private actors, have been shown to have a tremendous weight on the global process of climate change, strengthening its conceptualization as a state-corporate crime.

Considering that the case-study method offers a vantage point 'in the search for some replicable reality in a single case that is seen to offer an accurate reflection of a knowable social world; or in Hamel's terms ... offers a concentration of the global in the local' (May 2011: 221); it is worth to underline that if it comes natural to think of climate change as a global product, the processes moving this issue overcome the global space, and can be observed from regional, national or local point of view. In line with that, this dissertation focuses exclusively on the Amazonian selected area.

With an estimate population of 35000 the Shipibo-Conibo represents around 8% of the total indigenous population of Peru, and one of the biggest indigenous group of the Amazon, placed long the Ucayali river (Wikipedia, 2017. Shipibo-Conibo People. [online] Available at https://en.wikipedia.org/wiki/Shipibo-Conibo_people [Accessed 10 April 2017]). Because of the contact with missionaries, the exploitation of Amazonian resources, the relocation of a big part of population to urban areas (especially the city of Pucallpa, Iquitos and Lima) and the daily interaction with other cultures, the Shipibo-Conibo have creatively adapted to western cultures and Spanish language, without leaving their native language, traditions (decorative art and the use of medical plants as the Ayahuasca) and ancestral beliefs.
3.1. Data's sources

The case-study was selected during the investigation done around the Amazonian regions of Ucayali and Loreto, Peru, from September 2016 to February 2017. During the five months stay in Pucallpa I co-worked with a local NGO, Alianza Arkana, whose support facilitated the contact with Shipibo-Conibo communities and some political and social actors. Toward the broader analysis of the impact of the abetting of the national legislations of a single state on the increase of climate change, the research's design addressed two levels of investigation: identify the harm(s); identify the cause(s). These two levels where approached through qualitative tools, comparable to ethnographic research method as: unstructured interviews with key actors and informants – previously sampled, then transcribe and analyzed (Appendix 1); participative observation, and note keeping, in topic-related public meetings and conferences (Appendix 2); and official documents as secondary sources, including: NGOs investigative reports and project plans; international and Peruvian newspaper's articles; legislative decrees and international agreements about climate change, economy and the environment.

The choice of unstructured interviews was encouraged by the will to reach a more informal and confidential connection with the interviewees, since this instrument, in May's words, 'allows them to talk about the subject within their own frames of reference; and it thereby provides a greater understanding of the subject's point of view' (May 2011: 136). Furthermore, the snowball sampling technique facilitated my personal inclusion in local communities and society, obtaining the trust of the informants, and allowed a wider range of action. The interviewees where always informed about the topic of the investigation but, while talking with indigenous people the focus dealt more on the perceived causes and effects of climate change, the weight of TNCs presence in their territory and correlate social struggles; the interviews arranged with NGOs and political actors were oriented on economic concerns, legislative and regulatory frameworks, and the developed solutions for climate change. No previous structure was designed, and all the interviews were driven by reciprocal interest and learning processes between interviewer and informants.

12 The snowball sampling technique consists in gathering connections, informers and contacts through primary references, inside a close social space otherwise difficult to reach (May 2011).
3.2. Method: case-study analysis

According to Robert Yin (2003),

in general, case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life content … (it) allows investigators to retain the holistic and meaningful characteristics of real-life events (Yin 2003: 1-2)

For the aim of this work the choice of the case-study methodological approach shown itself coherent with the research questions, oriented to the descriptive analysis of the case selected. Relying on the theoretical framework and integrated model of state-corporate crime the case-study is examined by means of an explanatory strategy, where the two levels of analysis selected, organizational and institutional, are explored through the three catalyst for action of the model: motivation, opportunity and operationality of control (Table 1). The study bases on an embedded single case-study, where more unit of analysis, or subunits, are involved. Respectively: Peruvian laws related to agro-industries; the normalization of harmful behaviors; deforestation; the politicization of climate change through politics of mitigation and adaptation. As mentioned before, the analysis of the data was developed through a qualitative methodological approach. According to Thorne (2000),

it is important to recognize that qualitative data analysis processes are no entirely distinguishable from the actual data. The theoretical lens from which the researcher approaches the phenomenon, the strategies that the researcher uses to collect or construct data, and the understanding that the researcher has about what might count as relevant or important data in answering the research question are all analytic processes that influence the data (Thorne 2000: 68).

For the analysis of the harms caused by climate change an explanatory strategy based on the claims of the research questions was used. Focused on explaining the “why” and “how” of the topic, the analysis (started yet during the fieldwork) was addressed to identify prevalent and comparable elements and create a descriptive knowledge. On the other side, the analysis of the data concerning the influence of the political-economic structure of Peru on climate change, was supported by the literature review aimed, above all, to plant solid theoretical roots on which to develop the work. In this case the “direct content analysis” method was used, which builds on a pre-existing theory or literature that could be supported, non-supported or extended by the findings of the analysis itself (Hsieh & Shannon 2005). This method, among all, generally involves formulating the research questions to be answered, selecting the
sample to be analyzed, defining the categories to be applied, implementing the coding process, determining trustworthiness, and analyzing the results of the coding process' (Kaid 1989 quoted in Hsieh & Shannon 2005: 1285).

The literature review was characterized by two separate moments: one previous the fieldwork, aimed to identify the topic of the research; and a consecutive one directs to link data and theory. The first led to the development of the theoretical proposition on the state-legitimated economic harming mechanisms affecting environment and local communities in the Peruvian rainforest. This proposition does not have to be read as grand theory as the simple goal was, quoting Yin, 'to have a sufficient blueprint for (the) study, and this requires theoretical propositions, usefully noted by two authors as a (hypothetical) story about why acts, events, structure, and thoughts occur' (Yin 2003: 29).

3.3. Validity, reliability and delimitations

To ensure reliability in qualitative research, examination of trustworthiness is crucial. Reliability refers to the ability to yield consistently the same result if the study was to be repeated. 'It requires that a researcher using the same or comparable methods obtained the same or comparable results every time he uses the methods on the same or comparable subjects' (Brink 1993:35). On the other side, in Brink's (1993) words, 'validity in research is concerned with the accuracy and truthfulness of scientific findings. A valid study should demonstrate what actually exists and a valid instrument or measure should actually measure what it is supposed to measure' (Brink 1993: 35). To overcome the empirical discussion on the possibility to apply the concepts of “validity” and “reliability” (key concepts regard the quality of a quantitative analysis) in a qualitative study, this dissertation bases on the strategy of triangulation. Triangulation is usually defined by four levels, referring to the application of more than one method, theory, data and researcher in the same analytical work. Accordingly, the use of this strategy improves the validity and reliability of research or evaluation of finding (Golafshani 2003: 603).

The goal is to use different types of evidence to triangulate or converge on the same research questions. The findings will then be less open to the criticism that they had resulted from and possibly been biased by a single data collection method. To take advantage of this principle, good case study investigators need to be adept at using different data collection methods (Bickman & Rog 2009: 261).
Even if in this dissertation both research and analysis count on one single researcher, it builds on different methods (case-study and content analysis), different data (interviews, participate observation, secondary resources), the integrated model of state-corporate crime (Table 1), and the theoretical framework of state corporate crime. In spite of the fact that triangulation may include multiple methods of data collection and analysis, it would be wrong to talk about a fixed method for all researches. Instead, these are intrinsic the criterion of the research itself (Galofshani 2003: 604). In this case, as we saw, the analysis of the palm oil industry builds on the model of state-corporate crime, while the theoretical concepts selected from the literature link the broader climate-environmental issue with their conceptualization of crime.

When it comes to delimitation, it is worth to keep in mind that to use the direct content analysis, based on a defined theory and literature, may involves some delimitation during both data collection and analysis, since the researcher could find, more likely, evidence that support rather than not the same theory (Hsieh & Shannon 2005: 1283). In line with that, and expanding the discourse on an ethical level, we need to consider that the collection of data during the fieldwork, especially through interviews and participate observation, could easily been “contaminate” by the presence of the researcher, putting on risk its validity and influencing the outcome of the same interviews. In my personal case I am aware that my background may have conditioned the answers received, and the relationship with the informants. Even more if we take into account my position of European researcher, co-worker of a local NGO engages in cooperation and development projects in the area. For this reason the data collected by means of these tools have been carefully analyzed and, above all, compared each other, or with secondary resources (scientific publications or previous research). Concerning the theory, using a dynamic theoretical framework and the previous literature helped overcoming the risk of strong interference. One more time triangulation comes out as trustworthy guarantor.

Furthermore, we need to consider that lack of time shaped the fieldwork period, reflecting also on the following analysis. A longer stay in the field would have led to more information being collected. Despite this, while the casual mechanisms of the climate-environmental crisis and the socio-economic issues growing in the selected area have shown to be interconnected with other topics of scientific interest which would need more time to be explored; the conceptualization of climate change as state-corporate crime is supported by the case-study selected.
4. Results

Climate change can be considered today the biggest environmental crime in history and main threat to the socio-ecological balance of the world. Causes and effects of climate change have been studied by different disciplines, and are today subject of socio-political discussions at international level. Despite its global spread, the consequences of climate change are perceptible regionally and locally, particularly in the most vulnerable regions of the world, as Latin America. As the prerogative of this work is to explain: the conceptualization of climate change as state-corporate crime in the stage of modern Peru; and how some legislative and political mechanisms within the Peruvian government are burdening climate and environmental issues; this chapter builds on the assumption that to identify the transgression it is necessary a previous analysis of the harm inflicted. With this in mind, this first explanatory work presents the main issues and actors of the analysis, and focuses on: the anthropocenic nature of climate change; the failed policy of mitigation and adaptation of Peru; the effects of climate change in the selected geographical area; and the connection between the social harms produced by the palm oil industry and climate change. By means of the data collected during the fieldwork in Pucallpa, secondary sources, and defining the temporal limits to the last decade, the chapter addresses the strategic and vulnerable position of the Amazon in relation to climate change and economic-related policies. Oriented toward the case-study on the environmental crime on stage in the Peruvian Amazon forest, the imprint of the palm oil industry in the region of Ucayali, and the struggle of the Shipibo Community of Santa Clara de Uchunya against Dennis Melka's palm oil corporation, are both reported as sample case for the final analysis on the conceptualization of climate change as state-corporate crime.

4.1. The anthropocenic nature of climate change

With climate change are generally defined all the atmospheric, hydrological and geological processes produced by climate variations on a global scale, which affect the different ecosystems of the planet (Espinosa & Gonzales 2014). If changes on the climate have always been recorded as consequences of natural phenomena, from the second half of last century the scientific community started correlating the rapid and inconstant increase of the global temperature with human activities, highlighting a second and anthropocenic nature. The process of global warming faced today is the result of the constant increase of carbon dioxide (CO₂) and other greenhouse gases (GHG) concentration in the atmosphere, due to production and con-
sumption patterns that require the intensive exploitation of natural resources. According to Castillo (2016), scientific studies agree that the incrementation of GHG's emission by human activities are responsible for 80% of the atmospheric heating recorded from the middle of the twentieth century, in order: fossil fuels burning processes for electricity generation (26%); industrial activities (19%); deforestation (17%); agro-industries (14%); infrastructure and transportation (13%) (Castillo 2016: 18-19). Indeed, to highlight the anthropocenic nature of climate change lets emerge its political-economic framework. From the prospective of Andrea Lampis (2016), the global environmental change (of which global warming and climate change are part) should be rethought as social and political phenomenon since (from the publication of the Stern Review on the effects of climate change on the world economy in 2006, and the Assessment Report No. 4 of the Intergovernmental Panel on Climate Change (IPCC) in 2007) a knowledge of hegemonic tendencies has been created based on the epistemological positions of natural and economic sciences (Lampis 2016: 13). Today, the intensification of environmental exploitation and degradation by governments of capitalistic order (first in developed countries, and now always more in developing countries\textsuperscript{13}) and the private corporations behind them are the proof that economic and short-term interests are developed at the expense of environment's integrity and human health; they produce an 'environmental terrorism which degrades millions of peoples lives, enrolled in a spiral of ecological destruction never seen in history' (Castillo 2016: 21; translation mine).

Nevertheless, we need to keep in mind that around Latin America, the process by which climate change is internalized in the political space is designed differently according to subregions and countries. Until now, because Latin American countries do not have the international obligation to reduce emissions\textsuperscript{14}, the actions taken have been mostly aimed by processes of adaptation\textsuperscript{15}. In this context, many countries created \textit{ad hoc} policies and new organisms to comply with international agreements. But, in spite of the theoretical efforts, 'many of these mechanisms are maintained at the discursive and technocratic level of elites, evidencing the construction of guiding instruments rather than normative ones, with little institutional capa-

\textsuperscript{13} It is worth to keep on mind that the majority of GHG emissions in developing countries, as those in Latin America, are indeed given by the production of goods mainly direct to export to developed countries (such as US, Europe and China), and not for local consumption (A1)

\textsuperscript{14} The Intergovernmental Panel on Climate Change (IPCC) divides the signatory countries into: developed countries with obligation to mitigate (Annex I); developed countries with obligation to mitigate, and fund climate change programs in developing countries (Annex II); countries without any obligation to mitigate, but instead to adapt and develop strategies to internalize climate change as public policy (No-Annex I), as Latin American countries (Blanco Wells 2016: 59).

\textsuperscript{15} While with mitigation are intended the processes aimed to limit climate change by reducing GHG emissions, adaptation aims to decrease its impact and effects by means of different actions at national level.
city to be implemented' (Blanco Wells 2016: 46-47; translation mine). This is the case of Peru where, in the last years, the acknowledge of climate change made of its different dimensions agenda for the public sector, letting to develop programs such as the Estrategia Nacional ante el Cambio Climático (ENCC) (MINAM 2015); Estrategia Regional ante el Cambio Climático (ERCC); Manejo Forestal Comunitario (MFC); Estrategia Nacional sobre Bosques y Cambio Climático (ENBCC) (MINAM 2016); and different projects of the UN program REDD+ (Reducing Emissions from Deforestation and forest Degradation). Furthermore the Peruvian State actively participates in the international negotiations on climate change (latest the Conference Of the Parties in Marrakesh – COP22) since it signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, and the Kyoto Protocol in 1997. These public policies are part of a bigger project of “Green Development” which, a part from them, includes programs of Intended Nationally Determined Contributions (INDCs) such as new hydroelectric and mining projects to reduce the use of fossil fuels, or electrical interconnection projects as the one with Ecuador (A1). Despite the effort (often pushed by below movements and social actors instead of government's stance) the majority of these programs remain palliative (aimless and non-transparent) and have not yet demonstrated the concrete intent of Peruvian government to safeguard the environment in spite of the visible impact of climate change on the country. Neoliberal policies of economic development introduce action plans and state prerogatives that lead to opposite roads than mitigation or adaptation, challenging the socio-environmental integrity of the country, and showing 'how climate change is considered, politically and economically, as a further opportunity for new businesses' (A1; translation mine).

4.2. The effects of climate change in the Peruvian Amazon forest

The problem here is not that the atmosphere is warmer – there are always been climate change on Earth – rather that it is warming up faster than ever in history. Processes that used to happen over millennium, now take decades to occur. The rapidity of global warming left biodiversity with few possibilities to adapt and acclimate, furthermore threatening the way of life, and life itself, of the majority of the world population (Castillo 2016: 24; translation mine).

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16 INDCs pair national policy setting (in which countries determine their contributions in the context of their national priorities, circumstances and capabilities) with a global framework under the Paris Agreement that drives collective action toward a zero-carbon, climate-resilient future (World Resources Institute. What is an INDC. [online]. Available at: http://www.wri.org/indc-definition [Accessed 02 April 2017]).

17 These projects of mitigation are based on the assumption that buying electricity from other countries will allow the internal decrease of GHG emissions, without taking into account that the Ecuadorian energy matrix, for example, as the Peruvian, is deeply dependent to and derives from fossil fuels and not clean energy (A1; translation mine).
According to different scholars, from a moral standpoint, the most alarming element of climate change is that it harms mostly those geographic areas and populations that have contributed the least to the problem and which appear to be the most vulnerable (Espinoza & Gonzalez 2012; Kramer 2013; White 2012). Most of the countries which do not have a significant ecological footprint are in fact highly sensitive to the effects of climate change, and are today the most affected. Hence, while Latin America is one of the regions of the world suffering for a stronger impact, Peru showed to be one of the most vulnerable and affected countries inside the region. It is indeed important to keep on mind, that, as explained by Borg Rasmussen and Pinho (2016),

> The uneven distribution of detrimental effects is not simply a biophysical phenomenon but a social and political one, deeply contingent upon social and political conditions. This perspective maintains that climate change impacts do not just “fall from the sky” but are shaped by preexisting socioeconomic and politically contingent vulnerabilities that are maintained by the current global political economy order of production, consumption, and commerce (Borg Rasmussen & Pinho 2016: 8).

Climate change is today harming all the different ecosystems of Peru, arising issues of ecological, social, political, economic, cultural and ethics dimensions. Here climate change appears as the drop that overflows a vessel yet full of inequity, rights denied and social struggles on the stage of a political order that, as we saw, try to cure instead of preventing. The country counts today of only 'one policy of alarm and re-action against certain disasters. But public prevention policies are lacking. That is why there is the National Strategy against Climate Change, but no adequate budget has been developed', says Antonio Zambrano, director of the NGO Movimiento Ciudadano frente al Cambio Climático (MOCICC) of Lima (quoted in López Tarabochia 2017b). The 2017 Niño Costero\textsuperscript{18} is only the last of a series of similar extreme events affecting the country, which, if not completely consequences of global warming, become more critical when placed side by side this phenomenon.

As the rest of the country, also the Amazon regions have been subject to extreme climate events in the past years. But, despite the general interest about the effect of climate change, until now public concern have been focusing mostly on the impact suffered in the high Andean zones and the coast of Peru, while less attention was played to study the affection of the Amazon regions (Espinosa & Gonzales 2014: 157; L1), underestimating the fundamental role of the Amazon forest. The Amazonian rainforest has in fact a balanced relationship with cli-

\textsuperscript{18} El Niño Costero is a climatic anomaly that develops exclusively on the coasts of Peru and Ecuador, due to the warming of the Pacific waters (López Tarabochia 2017a).
mate, due to the eco-systemic services it provides regionally and globally. As humid tropical forest, the Amazon is an important consumer of solar energy: it absorbs a huge part of the CO₂ atmospheric (annually around half a billion tons of carbon – 'more than Russia's annual carbon emissions, and equivalent to about a third of those from the US' (Salisbury 2017)); and it is one of the biggest water reserve of the world (providing 50% of the rains usually produced by evaporate-transpiration¹⁹). In this region, although there are always been a permanent cycle of growth and decrease in the flow of rivers due to precipitations, during the last years changes in the precipitations caused tremendous floods which became a real threat to entire populations that lost their homes and food crops (Espinosa & Gonzales 2014). Simultaneously, longer and stronger dry periods have been reported, generating negative impacts on the ecosystem and the socio-economic sphere of local populations, as demonstrated by the information collected in the Shipibo community of Paoyhan (Loreto):

During the past years many things have changed in the Community of Paoyhan. We had forest, we had lagoons, there were many fishes, but today we are facing a different reality than 20 years ago. Too much has changed. Before we had trees close, *chiwakacerte*, which are important trees that capt the carbon dioxide and give water to the soil, in this way the lagoons preserved the water. But today we see that these lagoons are drying out, there are no fishes now. Why? I started to analyze a little ... Because the trees that gave water have been catted down. The ground is dry. There is a total change. The sun is much stronger now, and for longer periods (L3; translation mine).

The rate of warming in Amazon has been around 0.25°C in the last decades, but what worries is that under midrange GHG emission scenarios, temperatures are projected to rise 3.3°C this century (Malhi *et al.* 2008: 169), which could implicate a lost in CO₂ (and a further and consequent rise in temperatures)²⁰, water storage and habitat.

According to Limbe, the young Shipibo leader of the community of Paoyhan, seated along the Ucayali river in the south of the Loreto region:

The State thinks that Lima is all Peru, that Pucallpa ... Iquitos is all Peru. They never come here, to the communities, where we are living the greatest needs ... We are living all of this, the total change of the river. Look, in the middle of August more or less, this river, the

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¹⁹ *The rios voladores*, made of evaporated water, provide water supply to extreme areas across South America (as the Argentinian Pampa, the Andean or the Peruvian desert coast), and the Northern hemisphere (Voces de la Amazonia, Appendix 2; translation mine).

²⁰ According to John Vidal (2017), tropical deforestation causes carbon dioxide to linger in the atmosphere and trap solar radiation. This process raises temperatures and leads to climate change: 'deforestation in Latin America, Asia and Africa can affect rainfall and weather everywhere from the UC Midwest, to Europe and China' (Vidal 2017).
Ucayali river that comes to reach Paoyhan ... is drying up already... the ravine is advancing and the beach is advancing. The were no beaches before in the river (L3; translation mine).

The United Nations Permanent Forum on Indigenous Issues (UNPFII) declares that 'climate change represents a threat and harm for indigenous Peoples survival all over the world, despite the fact that indigenous Peoples contribute very little to greenhouse gas emissions' (UNPFII 2008 quoted in Espinosa & Gonzales 2014: 163-164; translation mine). As we saw, in the Amazon with climate change the usual equilibrium of atmospheric events has going changing toward longer, more intense and unpredictable periods of droughts and floods. It is always more difficult to predict these phenomena and their characteristic, rising the level of vulnerability of local populations and the ecosystem. 'Today many things are changing. Traditionally we used to notice the beginning of winter from the rising of the river, but now it is always harder to understand and predict the seasonal changes' (L3; translation mine). If indigenous Peoples have been usually known also for their ability of resilience and adaptation to climate changes, the rapidity and unpredictability of modern courses are disorienting their traditional knowledges and techniques, making them more vulnerable subjects. Among the most visible impacts of climate change on indigenous communities there are: 'food shortage, greater exposure to diseases, difficulties to access to drinking water, loss of property and even lives' (Espinosa & Gonzales 2014: 164; translation mine); forced migrations and displacements (Castillo 2016; Gonzaga 2016); loss of traditions and cultural knowledge, and socio-economic changes (among others).

A comparative analysis on the impact of climate change between the Shipibo communities of Paoyhan (Loreto), Calleria (Ucayali), and Nueva Saposoa (Ucayali), makes visible a similar outcome, letting emerge that all these communities have been extremely affected during the 2010-2011 and 2015-2016 biennium by the worst drought and floods in decades.

In 2011 we had a huge flood, in terms of height, more than all the years he had experienced. Every year the community floods but this year it flooded more than all the times. Normally it is not a heavy rain, it floods and already in the afternoon the water goes down (but this time), the water remained, so many families had to migrate, and this migration effectively affects them ... many left and did not return. Always lesser return, and this problem is increasing, not only in Calleria but in general with all the communities ... This has to do with climate change in some way (P1; translation mine).

When the river grows (usually around the months of January and February) the communities are fully inundate, which leads to poor hygiene, logistic problems, difficulties in obtaining
food, and an increase risk of epidemics. Whoever has the chance migrate to the closest city (mostly Pucallpa) to returns when the river drops, about two months after. The situation in these communities is becoming increasingly critical for the unusual frequency of these extreme events. In the specific case of Paoyhan, the river is so rapidly eroding the coast that the community is constantly forced to move the houses. 'Now every year Paoyhan floods, and before it was not like this' (L3; translation mine). During the winter months, the sound of the collapsing banks of the Ucayali river is part of the everyday-life in the community. 'Paoyhan was big, the stadium that is in the main port was far from the center. And now? The ravine has reached more than 2 km ... and it continues. I am worried … Every year the river is stronger and closer' (L3; translation mine).

As mentioned before, one of the sphere suffering the most for the effects of climate change is the socio-economic one, related to food storage and family-economy. According to the data collected in the field, changes in the diet and some traditional mechanisms are intrinsically related with the degradation of the surrounding environment of the communities, since forest and rivers are one of the main sources of food, medicinal plants, and building materials for homes. Until few generations ago, the daily alimentation of the Shipibo was based on self-productions (mostly agriculture and fisheries) or food-exchanges between communities, while today the majority of the food arrive from city-markets. This change comported a re-configuration of the socio-economic set-up of the communities, as the sale of self-produced high-quality food (mostly fruit, tubers, hens and fishes) for the purchase of low-quality food: 'If there are fishes now, we take them to sell them and buy other things to survive. Here in Paoyhan we buy everything … there are no fishes (for us) now' (L3; translation mine). Additionally, the change of the seasonal cycle is a further cause of the change of diet. In fact, the prolongation of heavy rains leads to faster and not traditional cultivation of crops (e.g. different varieties of manioc) (Espinosa & Gonzales 2014). In this context, malnutrition appears as one of the major causes of the high rate of diseases, especially among children. According to Espinosa and Gonzales's analysis in the Shipibo community of Nueva Saposoa, the community is facing today the acute diffusion of new diseases, and a greater presence of mosquitoes, increasing cases of malaria, dengue and typhoid (Espinosa & Gonzales 2012: 173-174). The data collected in Paoyhan did not show a significant increase in disease, although childhood malnutrition is high.

In order to highlight the link between the perceived impact of climate change, and the intensive exploitation of lands along the Ucayali river, it is indeed important to underline the
double essence of the Amazon rainforest in respect to climate change. If on one side, as rainforest, it carries out the fundamental role of climate regulator, on the other side it is extremely suffering for the impact of global warming, locally increased by: economic-related processes as deforestation, mining, agro-industries or infrastructure's projects. Indeed, many Amazonian regions (as Ucayali) are those suffering the most for deforestation, an issue strongly related with climate change in this territory (Espinosa & Gonzales 2014: 165). The Amazon's integrity is visibly threatened by exploitive economies which not only are giving rise to an ecological crisis of global range, but are also showing to burden the impact of climate change in the local sphere. These statements finally introduce the political-economic background on which we base the analysis developed in this dissertation on the conceptualization of climate change as a crime state-corporate related.

4.4. The palm oil industry in the Peruvian Amazon: the case of the TNC Melka

The palm oil industry is today one of the first causes of deforestation in the Amazon rainforest. In the global stage of such environmental destruction, Latin America is now replacing Asian countries such as Indonesia and Malaysia, where this industry brought enormous harms equated with a climate catastrophe. The thousands of hectares of Latin American forest destined to palm oil plantations are mainly exploited by transnational corporations for export to countries and regions as China, India, Europe and North America where this resource is strongly demanded by food, cosmetics and biofuels markets. In the Peruvian side of the Amazon rainforest there are today many indigenous communities and small farmers struggling against some of the same actors responsible for environmental crimes in Southeast Asia, aimed to preserve their ancestral lands and forests (Oxfam 2016b). 'High-yield oil palm plantations are just beginning to be important drivers of deforestation in Peru. Strong political support and legal stimuli for the cultivation of this crop in the country, along with extensive suitable areas and increasing global demand for palm oil, suggest that expansion will continue' (Gutiérrez-Vélez et al 2011: 4).

The relationship between the Peruvian Amazon forest and the palm oil business is long-standing, locating the first projects during the 1960s in the region of San Martin by national companies as the Romero Group, the largest company in the country operating in different sectors (Oxfam 2016a; EIA 2015). As in other Latin American countries, the situation is today different, and the large-scale business of palm oil industry is mostly in the hands of foreign and transnational companies which, in the last decade, started to invest in some Peruvian
regions (mostly Loreto, Ucayali and San Martin) where soil's composition, political favoritism, and legislative lack favored their growth. From 2012 the palm oil industry started to rapidly expand in Peru, laying on the governmental proclamation of palm oil as national priority (Decreto Supremo Nº 015-2000-AG), and Peru's 2011 biofuels legislation, which requires that all diesel must contain 5% biodiesel (AIDESEP 2016)\textsuperscript{21}. Additionally, Peru imports 70% of the oils it consumes, making of the development of palm oil crop a further justified reason to satisfy the internal demand (Oxfam 2015). 'The increasing penetration of transnational capital into agro-business plantations in the Peruvian Amazon has radically changed the situation, not only in terms of the scale of projects, but also with regards the kinds of relations these companies establish with both local communities and the environment' (Alianza Arkana 2016). Currently, between the regions of Loreto, Ucayali and San Martin, large-scale palm oil projects occupy around 120,000 hectares between the production zones and the lands recently acquired by medium and large companies (Oxfam 2016b: 19). According to the 2016 Report of Oxfam, pending approval projects could triplicate short-term extensions of palm oil, and the Peruvian government has announced to have the capacity to allocate a minimum of 1.5 million hectares of land to palm oil cultivation (Oxfam 2016b: 19)\textsuperscript{22}. The official policy of the Peruvian government is to allow the production of palm oil only in previously defunct or degraded forest areas, however, voids in legislation and violations of national law permit pristine rainforest areas to be considered suitable for planting palm oil (Oxfam 2016b). Moreover, in Peru only 55% of Amazon lands have been classified (as agricultural or forestry), while the remaining percentage is unrecognized and at risk of being devastated (Oxfam 2016a). These limitations and lack of information on Amazon lands did not allow the State to rapidly implement to block harmful business operations which are now one of the major causes of deforestation (Oxfam 2016a: 16).

\textsuperscript{21} The 2003 Law of Biofuels Promotion (Ley de Promoción de Biocombustibles) marks the production of biofuels as strategic national priority. This determination is made through standard economic justification, (as economic growth and job creation), but also includes criteria related to climate change mitigation, as well as the possibility of increased rural investment to provide a model of alternative development that could compete with crops used for illicit drug production. The law and the associated regulations include measures to encourage agro-industrial development in the production and transformation of raw materials in biofuels, such as palm oil. In line with that, since 2010, diesel in Peru must have a content of 5% biodiesel of any vegetable origin and of national or international origin (USAID 2015: 6).

\textsuperscript{22} According to USAID's report instead, the position of the Ministry of Agriculture on the assignation of land for the development of palm oil industry in the Amazon has changed over time: 1,405,000 hectares with the National Palm Oil Plan in 2001; 1,135,000 hectares in 2012; 600,000 hectares in 2014 (USAID 2015: 25-26).
When talking about palm oil in Peru it is mandatory to talk about Dennis Nicholas Melka, the Czech-American entrepreneur funder of the Asian Plantations Limited, a company linked to massive deforestation and corrupt land transactions in the province of Sarawak, in Malaysia; and CEO of the United Cacao, a Cayman Islands-based company that has been accused by scientists and NGOs of clearing thousands of hectares of primary forest only in Peru (Cannon 2015). The plantations of the TNC in Peru (which in the country counts on 25 shell companies) are based in the province of Tamshiyacu in Loreto, and Coronel Portillo in Ucayali (USAID 2015). In Ucayali at the end of 2014 Melka, through the local affiliates Biodiesel Ucayali SAC and Plantaciones Ucayali SAC, reached to acquire more than 12 thousands hectares of land to amply its projects, the majority of which were bought from third par-

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23 The 2015 EIA’s report stated that of these Peruvian companies, only one registers Dennis Melka as an owner, while for the remaining 24 (according to documents filed with the official Peruvian property registry), Melka holds a special designation that grants him authority to act alone to make legal and commercial decisions for the company. All other registered individuals with legal authority are below this status, and therefore unable to exercise the same control over the companies as Melka (EIA 2015: 20).
ties. From the analysis of most of the documents on these purchase mechanisms, it emerges that the economic escalation of this TNC was counted on the political support encountered within the regional government, and the unclarity or gaps in the national legal framework on palm oil\(^{24}\) (Oxfam 2016a; Oxfam 2016b; Oxfam 2015; AIDESEP 2016; Cannon 2015). In fact, according to the sources of the 2015 Oxfam Report on the palm oil industry in Peru, in the search for new ways to invest in the country, Dennis Melka found the support of both Ucayali and Loreto regional government officials and some bureaucratic loopholes, as the direct purchase of lands by associations of small producers with property titles for agricultural activities.

The interpretation made by the public officials and the TNC based on the assumption that when acquiring lands by this means, they did not have to deal with the administrative requirements for the development of a plantation (such as the procedure for the change of land use or, failing that, the forest use permits) (Oxfam 2015: 40-41; translation mine).

The analysis of the data collected on the topic undoubtedly demonstrate the intrinsic, profit-driven, relationship between government officials and authorities of the two Amazon regions and the TNC, even more facilitate by a “revolving door”\(^{25}\) process. As example, according to Oxfam's report (2016a), since 2010 Melka built a tight collaboration with the United Nations Office on Drugs and Crime (UNODC), which further facilitated land acquisition and gave way to illegal deforestation: 'In May 2012, Alfredo Rivera Loarte, then representative of UNODC in Tocache (region San Martin), became bank agent and partner of Plantaciones de Ucayali SAC, a company of Melka. From this position he could have access up to $10,000 US-dollars of the funds of the company' (Oxfam 2016a: 31). Furthermore, the director of Plantaciones de Ucayali SAC has been the vice-president for the Roundtable on Sustainable Palm Oil (RSPO) in Peru, a global working group on environmental issues which ‘is a voluntary certification scheme for the palm oil industry based on company self-reporting, and has

\(^{24}\) There are three main laws and regulatory frameworks that affect the palm oil sector in Peru: (1) \textit{Ley de Tierras y la Ley de Agricultura}, regulates land tenure and agricultural production systems, including both individual private property and communal rights; (2) \textit{Ley Forestal y de Fauna Silvestre}, oversees the management of forest landscapes and wildlife resources; (3) \textit{La Ley de Promoción de biocombustibles}, offers a series of incentives and norms aimed at promoting the use and consumption of liquid biofuels. These laws are implemented by the Ministry of Agriculture and Irrigation, the Ministry of Environment and Regional Governments (USAID 2015: 4).

\(^{25}\) According to Conor O'Reilly's work (2010) \textit{The Transnational security consultancy industry. A case of state-corporate symbiosis}, the ability of TSCs to tie informal bilateral relationships between their work and strategic governmental agencies, is often facilitate by a process called “revolving door”: as the habit to hire ex employees of national agencies, or viceversa, to secure a closer link between public and private goals (O'Reilly, 2010).
been widely criticized for being overly lenient on companies found to violate forest laws, rights to land and human rights' (EIA 2015: 20).

For the specific case of Ucayali, the acquisition of land through the Dirección Regional Sectorial de Agricultura de Ucayali (DRSAU) was done within the framework of the Law 29151, General Law of the National Property System (Oxfam 2015: 44). In short words, the DRSAU incorporated into the state's domain a 12,481-hectare plot of land with available agricultural ability as a result of an order from the Comite Central de Palmicultores de Ucayali (COCEPU), part of which was successively sold to Melka, and for which COCEPU sent a claim that was dismissed. According to the Economic Technical Feasibility Study presented by the TNC, and a legal report, all requirements had been fulfilled (Oxfam 2015: 44). If it was not enough, an official document presented by DRSAU insisted that the development of such projects was a matter of national and regional interests based on the previous mentioned legislation on palm oil (Oxfam 2015: 44). The regional authorities adjudged to Melka's Planta- ciones de Ucayali 4,759 hectares of land without having submitted any environmental impact study, soils study or forest management adaptation program (required by law). Furthermore, there is evidence that Melka's affiliates bought small peasants lands (who owned 50 hectares of state-owned forests) for $30 US-dollar per hectare, in many cases under pressures by officials suspected of being close to the TNC (Oxfam 2016b: 19). The harmful relationship between public officials and Melka was furthermore facilitated by the lack of a well-defined law on palm oil plantations, and the Ley Forestal y de Fauna Silvestre which regulates agricultural and agro-industries conceptions, and establishes the classification of lands as suitable for agricultural activities or not. Despite the fact that forests are protected by Peruvian laws, according to the 2016 report of the Asociación Interétnica de Desarrollo de la Selva Peruana (AIDESEP) and an investigation published in 2015 by the Environmental Investigation Agency (EIA), in many occasions Peruvian government's current procedure for the classification of lands has allowed for extensive tracts of forest to be wrongly categorized as lands best-suited to agricultural production (EIA 2015: 28); or directly authorized deforestation of primary forest 'through a system that permits developers to pay for the forest classification studies and successfully lobby for the reclassification of primary forests as agricultural land' (AIDESEP 2016: 2; translation mine). It comes natural that such a weak and contradictory legislative system could be easily manipulated by public and private actors in a country with a high-rate of corruption as Peru.
Hence, the political-economic aim of the topic shows to be extremely interconnected with the socio-environmental issues of deforestation and climate change. 'In Peru there is deforestation in every case where large-scale palm oil plantations have been developed' (Oxfam 2015: 51; translation mine). The environmental impact of replacing amazonian vegetation with palm oil plantations is now debated worldwide, and it has been demonstrated that mayor consequences are: loss of primary forests; reduction of biodiversity and emission of greenhouse gases; contamination of aquifers, rivers and lagoons through the use of fertilizers and pesticides; increased soil dryness and temperature in the microclimate where they are installed; higher wind speed due to lack of coverage by trees (Espinosa & Gonzales 2014). Not to mention the socio-economic damages inflicted on local populations, especially indigenous ones.

'Melka's Peruvian plantations have been mired in controversy and conflict, with evidence of irregularities in the way lands have been acquired and subsequently managed, the illegal destruction of primary forests and human rights violation' (Alianza Arkana 2016). Until now, Melka deforested thousands of hectares of land between Tamshiyacu in Loreto, and the district of Nueva Requena in Ucayali. In this last case the two plantations incriminated lie on the north bank of the Aguaytía river, a tributary of the Ucayali River, home of different Shipibo communities. Based on Cannon's article for Mongabay 'several related companies appear to be responsible for the deforestation: Grupo Palmas del Peru, Plantaciones de Ucayali, and Plantaciones de Pucallpa all operate in the area, and each has ties to Dennis Melka' (Cannon 2015). Indeed, 'palm oil and cacao are the first responsible and incentive to deforestation and CO2 emissions in Ucayali' (P1; translation mine).26 According to the The Guardian's reporter Collyns Dan (2015), Dennis Melka denies the implication of the TNC in the deforestation of this area, arguing that by the time the plantation companies actually got there, the land had already been logged and clearcut by small farmers who previously occupied it: 'He went on to accuse “radical NGOs” of having a “neo-colonialist attitude” adding that Peru had 70 millions hectares of rainforest and should not be “importing food to meet the needs of its population” ' (Collyns 2015). However, satellite's analysis from 1990 to 2014 show that most of the area where Plantaciones de Ucayali SAC is located was natural forest until 2012' (EIA 2015: 28).

26 According to the 2015 USAID's report, a research on palm oil deforestation in an area of interest in the Norther Ucayali, compared large-scale, high-yield palm oil plantations to small-scale, low-yield plantations. Low-yield plantations of small farmers accounted for the largest global expansion (80%), but only 30% of their expansion involved forest conversion, which contrasts with 75% of the high-yield expansion involving deforestation. High-yield expansion minimizes the total area required to reach a given level of production, but with greater deforestation than poor yielding plantations (USAID 2015: 18).
The authorities specialized public prosecutors investigated these facts, and on July 2014 the Regional Government of Ucayali imposed administrative sanctions ($400,000 + $250,000 US-dollar) against Plantaciones de Ucayali for violations of the Forest and Wildlife legislation and the deforestation of 4,000 hectares without the required land use change authorization; but until now there is no publicly available information showing that these fines have been paid (EIA 2015: 28). At the end of January 2016 a financial investigation showed to have found a new direction: the Specialized Public Offense in Environmental Crimes of Peruvian Environmental Ministry requested to include Dennis Melka in the investigation as a perpetrator of the crime against forest and land usurpation. Judging from satellite images, in the case of Loreto the deforestation would be around 2 thousand hectares, and in Ucayali more than 11 thousand hectares (Oxfam 2016a: 61); for a total of more than 13 thousand hectares of

Figure 2: Deforestation for palm oil plantations in the proximities of Nueva Requena (Ucayali).

Source: MAAP - Monitoring of the Andean Amazon Project (MAAP 2015a: 2)

37 Regarding the deforestation of hectares of virgin forest in Loreto, when questioned by journalists about the legality of the logging operations, the legal representative of the companies stated that the agricultural activities in the parcels titled by the Legislative Decree 838 of 1997, Law for the allocation of land in the regions economically depressed (Ley para la asignación de tierras en las regiones económicamente deprimidas) did not require any authorization for land use change. In any case, on March 2014, the regional judicial and prosecutorial authorities initiated a formal process for the Tamshiyacu development project (USAID 2015: 15).
deforested land of which seventy-seven percent had been primary forest over the past 25 years, and 'nearly another twenty percent was secondary forest that had been cleared at one time but had since grown back' (Cannon 2015). Social accuse is of Ecocide.

4.5. The struggle of the CC.NN. Santa Clara de Uchunya against Melka

In a strong relationship with the environmental impact presented above, the palm oil industry is harming rights and livelihoods of many indigenous communities in the Peruvian Amazon, whose identities and traditional ways of life are closely related with the forest. These perceived threats have been turning into social conflicts in both Ucayali and Loreto, aimed by struggles for human and indigenous rights and land possession. In the district of Nueva Requena, north-Ucayali, the ongoing struggle of the Shipibo community of Santa Clara de Uchunya against the local businesses of Melka is the most emblematic. From 2012, with the expansion of Melka's business in the region, the ancestral lands of the Shipibo community of Santa Clara de Uchunya had become to be (il)legally acquired and deforested by Plantaciones de Pucallpa SAC, shell company of the TNC (AIDESEP 2016). Without any previous consultation (imposed by Peruvian Act Nº 29785 for the Consulta Previa and ILO-convention 169 ratified by Peru)28 the Shipibo of Uchunya woke up one morning to discover bulldozers operating in their land. Community resistance and lobbying of the central government resulted in a high level investigation by the Ministry of Agriculture in August 2015 (AIDESEP 2016), but, according to the 2016 report of the Asociación Interétnica de Desarrollo de la Selva Peruana (AIDESEP):

Even when the government does take decisive action to suspend some of these operations it appears unable or unwilling to enforce its own orders ... (in fact) after the General Directorate of Agricultural Affairs (DGAAA) ordered the immediate suspension of two of the companies operating in Tamshiyacu (Loreto) and Nueva Requena (Ucayali), members of local communities claim that little has changed. This is confirmed by independent satellite analysis which highlights that deforestation in Tamshiyacu continued despite the suspension order (AIDESEP 2016; translation mine)29.

28 According to the 2016 report of Forest Peoples Programme, in Peru traditional lands and territories of indigenous peoples enjoy the same level of legal and constitutional protection of indigenous peoples whose land has been titled, owing to constitutional provisions and international legal obligations (such as ILO Convention 169 and the jurisprudence of the Inter-American System of Human Rights). According to the legal system, the Regional Government could not grant any rights to ancestral territories of indigenous peoples not yet titled, as done in the case of Santa Clara de Uchunya (Forest Peoples Programme, 2016. The struggle of the Shipibo community of Santa Clara de Uchunya against the expansion of oil palm. [online] Available at http://www.forestpeoples.org/tags/palm-oil-rspo/struggle-shipibo-community-santa-clara-de-uchunya-again-st-expansion-oil-palm; translation mine).

29 Further confirmation is given by amateur video reachable online, as the one published on youtube by the NGO Forest Peoples Programme (17 May 2016) recording how the company has continued to maintain and
The same day of the order of stop in the plantation in Uchunya's ancestral territories, with a bureaucratic escamotage (escrow) more than 10 thousands hectares were transferred from Plantaciones de Pucallpa SAC to La Fiduciaria, to be successively re-acquired at auction by United Oils, yet another shell company of Melka, only few months later (Convoca 2017). 'By this time, only 0,3% of the forests and community's lands remained, 80% of which was once primary forest according to government estimates' (AIDESEP 2016; translation mine).

Figure 3: Deforestation for palm oil in Nueva Requena by Plantaciones de Pucallpa SAC. July 2010 (left panel), June 2012 (central panel) and September 2015 (right panel).

Source: MAAP - Monitoring of the Andean Amazon Project (MAAP 2016: 2)

The community of Santa Clara de Uchunya cannot longer rely on its main resource, the forest, where they cultivated, hunted, picked up supplies and fished in the now polluted water-courses. 'Our lands have been devastated, all the forest is gone, and the streams are completely churned up and blocked, there is now only one stream we can still use for clean drinking water' (community leader quoted in AIDESEP 2016; translation mine).

We are practically living under siege in our own territory. Almost every day there is more expansion of the plantation and anyone who challenges them is threatened. Our lands are still untitled and the plantations continue to operate. It seems that they are growing bolder cultivate its plantation operations in violation of the suspension order of the Ministry of Agriculture issued in September 2015. (Forest Peoples Programme, 2016. Entrada a Plantaciones de Pucallpa, constatacion que la empresa sigue operando. [video online] Available at: https://www.youtube.com/watch?v=UPL9nRtTc8&feature=youtu.be ).
seeing that the government is doing nothing. Do we have to die like Edwin Chota\(^{30}\) before they do anything? Where are we supposed to live? If our home is destroyed what hope for us and our future generations? (Carlos Soria, head of the community of Santa Clara de Uchunuya, quoted in Forest Peoples Programme 2017).

According to leaders of the community, around seven-thousand hectares have been taken away, and the struggle is still on stage today, with many community's members and social actors close to the cause threatened of death and intimidated, in addition to multiple denunciations. A recent article of the NGO Forest Peoples Programme (2017) reported the case of the community member Huber Flores Rodriguez, whose house and farm border the plantation of *Plantaciones de Pucallpa SAC* and who, several times, has been intimidated to abandon his lands through threatens:

(He) has reported several incidents where he has been accosted at night by groups of men threatening him and his family if they didn’t abandon their house. Mr. Flores claims that these include individuals with close ties to the palm oil company and a local land trafficking mafia connected with the regional Ministry of Agriculture\(^ {31}\). In February 2017, Mr Flores formally filed a request for physical guarantees from the Interior Ministry, but to date there has been no response (Forest Peoples Programme 2017).

On the meantime, the TNC denies the community's rights on these lands because of the lack of official titles. In this context it is indispensable to emphasize that as the government avoids the obligation to titrate indigenous lands, or to preserve non-titrating lands, it exposes 20 million hectares of indigenous lands to the risk of illegal expropriation for the expansion of palm oil plantation and other businesses (AIDESEP 2016). This issue is currently made more urgent by the recent approval of the Legislative Decree 1333 (successor of the disputed law 30230-2014, better known as "paquetazo ambiental"\(^{32}\) which, according to different NGOs

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\(^{30}\) Edwin Chota was an Indigenous Ashaninka, shot dead on September 1, 2014, along with three other men. He was the most popular Peruvian activist who fought against the deforestation of the Amazon Forest and drug trafficking in his rivers. Chota was a well-known character in Peru, a hero for environmentalists who, as an advocate, also lawfully fought against corruption in his country that favored deforestation by means of permission to break down trees and replace them with farmland (RQuotidiano, 2014. Edwin Chota. Ucciso l'attivista peruviano che difendeva la foresta Amazzonica. Ilfattoquotidiano [online] 12 September. Available at: http://www.ilfattoquotidiano.it/2014/09/12/ucciso-edwin-chota-lattivista-peruviano-che-difendeva-la-foresta-amazzonica/1118881/ [Accessed 24/05/2017]).

\(^{31}\) This episode is well explained by Flores’ brother on a video released on youtube by the local NGO Federacion de Comunidades Nativas del Ucayali y Afluentes (Feconau), one of the main support of their cause against Melka, on March 23, 2017. (Federacion de Comunidades Nativas del Ucayali y Afluentes, 2017. Nuevas amenazas en la comunidad Santa Clara de Uchunuya. Feconau [video online] Available at: https://www.youtube.com/watch?v=-jCY3_7LQBg4&feature=share [Accessed 22/04/2017]).

\(^{32}\) The Law 30230 was enacted in July 2014 under the government of Ollanta Humala with the purpose of re-activate the economy of the country. It was the first re-activator package of a series of later packages, but this one mainly focused on the environmental theme. The idea with Law 30230, according to the Mongabay journalist López Tarabochia (2017), was to promote sustainable investments to increase the public treasury
and social movements, undermines the rights of land and territory of communities and indigenous Peoples, smallholders and farmers in general (Servindi 2017a). At the same time, the company seems to have found ways to avoid legal issues, as the sale of its satellites (both Asian and Peruvian) such as Plantaciones de Pucallpa SAC (Servindi 2017a).

After the failed attempts to receive justice from the state's judicial system, on November 2016 the Shipibo of Uchunya started a process of autolideramiento and titling of their land, with the support of local and international NGOs. According to the portal Servindi (2017b) at the end of March 2017 the Civil Chamber of the Superior Court of Ucayali dismissed the claim for the rights of protection presented by the community of Santa Clara de Uchunya against: Plantaciones de Pucallpa SAC; the Regional Directorate of Agriculture of the Regional Government of Ucayali for the lack of land titling; and the regional office of Public Records, for the inscription of titles of owners of settlers obtained irregularly on the ancestral territory of the community. Based on a new regulation that provides the constitutional rights of protection when there are cases of highly vulnerable groups (such as indigenous peoples), the Shipibo community of Santa Clara de Uchunya is now pending to appeal to the Constitutional Court (Servindi 2017b) as last hope of the lawsuit against the colossal Melka.

through private investments, especially in the extractive sector. However, this was not achieved. Even the number of socio-environmental conflicts due to extractive activities of mining, oil and energy sector increased: 139 in 2014; 145 in 2015; 146 in 2016 (López Tarabochia, M., 2017. Perú: ¿El Paquetazo Ambiental cumplió con sus objetivos?. Mongabay, [online] 01 February. Available at https://es.mongabay.com/2017/02/paquetazo-peru-ambiente/ [Accessed 20/05/2017].)

One of the most discussed clauses of the Law 1333, is the creation of a Proyecto Especial de Acceso a Predios Para Proyectos de Inversión Priorizados (APIP) called a true “bureaucratic Frankenstein”, which does tabula rasa of the powers of the Ministry of Agriculture and Irrigation (MINAGRI), the Ministry of the Environment (MINAM), the Organismo de Formalización de la Propiedad Informal (COFOPRI), the regional governments, and blocks and hampers the operations of titling projects. All to facilitate access to rural areas, both public and private, formally or informally, in favor of projects of “national interest”, as palm oil plantations (Rumrrill 2017; Servindi 2017a).
5. Discussion

This chapter presents the analysis of the relationship between the palm oil of Dennis Melka and Peruvian state, by means of the theoretical model of state-corporate crime created by Kramer and Michalowski (2010). The model is here re-adapted toward the explanatory study of climate change as state-corporate crime, whose conceptualization builds on the case of Melka's environmental damages in the Peruvian region of Ucayali. Because of a lack of time and space, the analysis takes into account only two of the three levels of analysis of the model: the organizational, represented by the palm oil's TNC; the institutional, represented by Peruvian governmental institutions.

The chapter develops on two parts: the integrated analysis made through the model, where the two levels are analyzed by means of the three catalyst for actions (motivation, opportunity and operationality of control); and a second explanatory part where more theoretical concepts are employed to explain how the environmental crimes coming from the sample industry are connected to climate change. In few words, once established the injurious relationship between Peruvian state and the TNC the analysis goes on to highlight how and why this partnership, the legislative order behind it, and the effects given by deforestation are locally burdening climate change.

5.1. State-corporate crime: Peruvian state and the Melka Group

The analysis of the palm oil industry in Ucayali (closely related with issues of deforestation and environmental degradation in the region Loreto) is presented in this work as main example of a broader phenomenon of collusion and partnership between public and private actors in Peru. For the explanatory analysis of the illegal behaviors and the transgression of international standards of conducts causing social harms in the territory under study, we base here on Kramer and Michalowski's model presented in this same work (Table 1).

1. Motivation

(a) According to the data presented in the previous chapter, main incentive of Melka to develop the TNC's interests in Peruvian territory comes from the need to find new place where to invest. In fact, after the saturation of Asiatic territories suitable for palm oil expansion (expected to run out by 2022) and the rising of labour's costs, the same corporates convicted in the Asian environmental disaster started to invest in the Peruvian Amazon (EIA 2015: 3). Ac-
According to the 2015 EIA's analysis on the TNC, the progress of the company's affairs in Asia are closely related to the development of its businesses in Peru and shows great affinities in both the entrance into national market and the territorial development.

The fate of oil palm cultivation in Malaysia provides a cautionary tale … Logging companies operating forest concessions, given by politicians to curry favor with local ethnic leaders, subsequently funneled their profits from harvesting and selling tropical timber into oil palm plantations. Start-up capital for palm plantations was used to purchase new land and clear forests. Land was repeatedly allocated at far below market rates and subsequently reappraised for its true value, with massive profits accruing to palm oil companies and hidden in offshore accounts. The massive allocation of land and forests for cheap and without public transparency constitutes, in essence, theft of resources that should be for the benefit of all Malaysia’s citizens (EIA 2015: 3).

For our case, the research of new lands where to grow the company's interests highlights both: the ideal environment for rapid palm growth of Peruvian Amazon rainforest; and the State's position on the topic, which made of the palm oil business a national priority. In other words, the choice to operate in Peru in those ways, dictated by the need for rapid economic growth and freedom from bureaucratic intrusions, shows itself in line with Peruvian neoliberal policies of development. The pressure of goal attainment was even originated by the 'increasing profit margins for the global corporate industry of palm oil since 2007, when global raw materials experienced an unprecedented increase in demand, reaching a record peak in 2011 of $1,200 US-dollar per ton' (USAID 2015: 23; translation mine).

(b) At institutional level, Peruvian government showed to have symbiotic objectives with the industry of palm oil. As evidenced by historical data, the roots of this tendency bases on the adoption of a neoliberal political-economic ideology. According to Antonio Zambrano, president of the MOCICC in Lima, 'there are legal bios in the Peruvian legislature that allow the economic development in spite of the environmental damage, and those kinds of practices that avoid regulation are the modus operandi of Peruvian state since the 1990s of Alberto Fujimori's dictatorship and the new constitution' (A1; translation mine). Looking for economic progress towards the developed North, and backed by the international and free trade agreements established over the years, Peru has begun a process of reforms that have gradually given the market more room to allocate resources, rewrote the role of the state in economic activities, and promoted private initiatives (Solimano 2005: 225). In line with these political and economic trends, over the last decades, the governmental administrations that followed have
led the country to be an attraction for multinationals and transnationals in various sectors such as extractive industries, agro-business and mega projects as infrastructure and hydroelectric. Far from willing to delineate the Peruvian economic history of the past thirty years, these information help us to understand the background of palm oil reform and laws. Just as the other sectors just mentioned, once recognized Peruvian soil's adaptability to the international and constantly growing palm oil business, laws, regimes and regional decentralization schemes, favoring the introduction of foreign capital, have been developed. The Palm oil business became national interest in the 2000s with the law Act N° 015-2000-AG laying on the Ministerial Resolution N° 0641-99-AG through which the Amazon Development Unit (UDA) was established, aimed to promote, facilitate, and supervise agrarian development programs, projects and actions in the Amazon region, according to 'the provisions in the Law of Promotion of Investment in the Amazon, mainly of native and/or alternative crops, such as palm oil (Elaeis guineensis)' (El Peruano 2000: 186334; translation mine). From that moment on, several Palm Oil Sustainable Development Plans have followed (Plan Nacional de Desarrollo Sostenible de la Palma Aceitera), last signed by the Ministry of Agriculture and Irrigation (MINAGRI) on April 2016, reaching the goal to make of Peru a strong competitor in the future of the global palm oil market.

2. Opportunity

(a) According to Kramer and Michalowski's model, criminal or deviant behaviors at the organization level results from a 'coincidence of pressure for goal attainment, availability and perceived attractiveness of illegitimate means, and an absence of effective social control' (Kramer 1992: 217). In line with that, the availability and perceived attractiveness of illegitimate means at the base of the spread of Melka in Peru was given by limited institutional capacity and law enforcement, exacerbated by high levels of corruption in regions eligible for palm oil plantations. As we explained in the previous chapter, the legal facilities provided by the relevant laws for land purchases and the creation of new plantations in Loreto and Ucayali were supported by collusion with regional public officers, whose governments (very interested in promoting such projects) are, after the last decentralization, responsible for the approval of agro-industrial projects involving land use's changes (Oxfam 2015: 40). It is furthermore important to underline the links Dennis Melka was weaving with different authorities in the Peruvian rainforest. As main example we should keep in mind the cases previously reported of the “revolving door” process, as those between the representative of the United Nations Office on Drugs and Crime (UNODC) in Tocache, and the TNC, and the inclusion of the di-
rector of Plantaciones de Ucayali SAC among the tops of the Roundtable on Sustainable Palm Oil (RSPO) in Peru. Regarding the region Ucayali, the deviant collaboration with state's authorities allowed Melka to acquire its first lands in the region. In fact, thanks to the collaboration between Melka and officials of the agricultural management of the region, suitable farmers' land for palm oil plantations were identified. To facilitate the acquisition, it was suggested to the TNC the creation of a farmers association, Las Palmeras de Tibecocha, whose 5000 hectares were the first land obtained by Dennis Melka in Ucayali in 2012 (Oxfam 2016a: 3). The commissioner for the selling to Plantaciones de Pucallpa SAC, another company of Melka, was the president of the same association (Oxfam 2016a: 31-32). Quoting Oxfam's report (2012a) Amazonia Arrasada:

The participation of the Peruvian government, through Proinversión and the Ministry of Foreign Affairs, was key to the promotion of Malayan investments in the country. First came the companies Kausar Corporation and Sime Darby Planations. However, these did not prosper and in the end the only one who managed to undertake their projects was the entrepreneur Dennis Melka, who counts on financial allies in Malaysia. Officials from the regional governments of Loreto and Ucayali played a key role in the implementation of Dennis Melka's corporate projects. According to people interviewed who closely knew the process, these regional authorities even served as advisers so that the Czech businessman could develop an efficient strategy to obtain land (Oxfam 2016a: 59-60; translation mine).

On the environmental side, availability was given by the way in which TNC in Peru are allowed to remove forest and replace it with monoculture commodity crops such as palm oil, through a skewed interpretation of the forest definition established in Peruvian law. According to the Environmental Investigation Agency (2015):

The Peruvian authorities are using the Best Land Use Classification (BLUC) regulations – which only consider soil and climate, and not the trees on top of the land – as the only way to officially define forests. If a private investor submits a BLUC study arguing that the soil under the forest they are considering for development has some agricultural capacity, the trees can be removed and the government does not call this deforestation (EIA 2015: 62).

According to Forest Peoples Programme's article (2017), by means of a public statement issued on their website, the RSPO’s Complaints Panel recently condemned Plantaciones de Pucalp for its destruction of primary forests in violation of the RSPO’s code of practice. The RSPO’s findings come despite the company's withdrawal from the membership in October 2016: 'The RSPO Complaints Panel has found Plantaciones de Pucalpa (PdP) (Peru) to be in breach of RSPO Code and Conduct and RSPO Principles and Criteria during its membership period from 14 October 2013 to 12 October 2016'. After over a year of deliberation and an independent satellite analysis commissioned by the RSPO, the Complaints Panel concurred with the complaint filed in December 2015 by the Shipibo community of Santa Clara de Uchunya that Plantaciones de Pucalpa had deforested over 5000 hectares of forests, including primary forests (Forest Peoples Programme 2017).
Motivation and opportunity were given to Peruvian governments by the increasing international demands of palm oil. In the last decade, the neoliberal policies underpinning the reforms on matter as land exploitation, Amazon regions development, forestry regulation or incentives to biofuels industry, gave governments the possibility to create a perfect soil for foreign investors and TNCs businesses. The combination of the legal framework described in the previous chapter creates the conditions for the development of a market that includes both smallholder farmers and corporate agroindustrial actors, and a legal pathway that allows the conversion of primary Amazonian forests into plantations. 'In practical terms, by means of this legal framework, forest vegetation can legally be deforested and become an alternative land use without the intervention of the Ministry of Environment' (MINAM) (USAID 2015: 8; translation mine). According to the 2015 report of the United States Agency for International Development, the situation is aggravated by the fact that the only national land-use capacity maps, developed in 1981 by the National Natural Resources Assessment Office (ONERN), have not been widely distributed in Peru and have not been updated since the 1980s (USAID 2015: 8). Moreover, Peru started a process of politicization of environmental issues as climate change (as documented by the failed projects of mitigation and adaptation previous mentioned), which in some cases were used as justification for the same regulatory and legal reforms that are now been accused of environmental crimes: lastly, the Legislative Decrees 1292 and 1333 promulgated this year (2017) by Pedro Pablo Kuczynski's administration which have been unanimously and vigorously rejected by all Andean-Amazonian indigenous organizations and environmental and human rights institutions, because 'represent one of the greatest threats to the fundamental rights of indigenous and native populations of the country' (Rumrrill 2017; translation mine). In doing so Peru not only violates international standards of conducts and regulation, or international agreements environmentally and climate-related; it also allows, through the diffused collusion and corruption of public actors, the normalization of deviances such as the ones carried out by Melka. The failed payment, in economic and judicial terms, of the damages inflicted to environment and indigenous Peoples in both Loreto and Ucayali is a further evidence of this process of normalization which, according to Lynch et al. (2010) 'deserve inspection and critical analysis precisely because these forms of (state-corporate) intersection and cooperation have become normalized' (Lynch et al. 2010: 233).

3. Operationality of Control

The regulatory vacuum allowed Melka to stay basically unpunished despite the recorded damages inflicted to the territory, and transgressive behaviors staged in the two Peruvian re-
gions. Even if during the past years different institutional spheres have openly launched accusations or prosecution for illicit conduct of environmental degradation, to date there are still no clear signs by Peruvian state of the will to take concrete disciplinary measures. In addition, the complicated administrative and ownership structure of the transnational company has promoted legal loopholes facilitating the company's legal impunity, such as the ongoing sale of Peruvian and Asian shell companies, which allows the non-traceability of the responsible.

(b) One of the main problems in the Peruvian institutional structure is the lack of cooperation between the various parties (whit the Ministry of the Environment developing environmental protection and mitigation plans, and the Ministry of the Economy launching decrees for the exploitation of further lands in the most vulnerable areas of the Amazon), favoring the institutional and legal instability of the country. In this context, the administrative stalemate, the lack of will, and the collaboration between public and private actors are questioned and accused by a single actor: the civil society. The major pressure toward legislative regulation and investigations against Melka comes mainly from local, national and international NGOs and social movements for the defense of the environment and indigenous rights. As the documented case of Santa Clara de Uchunya shows, these same organizations, through campaigns to publicize environmental destruction, public protests, declarations and other actions, have reached to transform a local issue into a national and international one. Furthermore, linking human rights, environmental, socio-economic and climate change issues together they reached greater resonance and audience.

The analysis of the two actors, by means of the catalyst for action, put the bases to build a connective explanation between economic and environmental-related policies, crime and climate change. How emerges from the analysis, the transgressive conducts of the TNC in the region cross the line between legality and illegality, and calls for a re-conceptualization of its criminogenic essence. We need to re-think these crimes which held unpunished by national juridical system, or are not being considered as such because of a legal framework create ad hoc to protect “them”. Similar to the case of Dow Chemicals presented by Katz (2012), the Melka Group managed to create a mutually rewarding and symbiotic relationship with different institutional organisms in order to maximize profits and protection. Depending on the point of view adopted, we could both state that: if on one side the illegal deforestation is recently perceived as crime by national juridical system, but pressed by civil society (as proved by the current charges against Melka); on the other side, the proved-harmful mechanisms through which Melka acquired lands and damaged the environment and the socio-economic
spheres of local communities, *de facto*, did not violate national laws and should instead be conceptualized as transgression of international standards of conducts. According to Kramer and Michalowski, TNCs crimes arise beside the national legal framework that define them. If we take into account also Green *et al.* (2007) study on logging and legality in Tasmania, we can see how environmentally harmful activities even if conducted following (controversial) laws, nevertheless violate norms to which there is significant pressure to conform from national and international civil society. 'The legality of such activities, far from rendering them innocent, can be seen as an indication of state collusion, thus bringing the activities of logging companies (palm oil in our case) within the concept of state-corporate crime' (Green *et al.* 2007: 98). Building on this, the analysis of this work proves that the inappropriate and symbiotic collaboration and reciprocal support between Peruvian state and the Melka Group created environmental damages, while threatening indigenous and human rights and the unstable climate equilibrium, and can be indicate as state-corporate crime.

On one side we have public actors who facilitated and privileged private interests over public ones in numerous ways: by the lack of clarity and transparency (and often unconstitutionality) of laws on palm oil plantations, or in general regarding the exploitation of soil in the Amazon; by the absence of a proper regulatory system to prevent such crimes (proving instead state complicity in the same crimes); by the regional decentralization process which made of regional governments the main players in the allocation of agricultural permits and land acquisition, without considering the high-rate of unpunished corruption between public officers; by the lack of titration of indigenous lands and a comprehensive study of Amazon soil characteristics (agricultural or forestry); finally, by adopting policies openly influenced by the demands of the international market and its main actors. On the other hand we have instead private actors which managed to make of their interests a national priority, influencing national and international decisions and reforms on both environmental and economic-related issues. Focusing on the specific case of the Melka Group, the transgressions and harmful behaviors conducted are readable as product of an internal standard of conduct which demonstrated to have similar outcomes in Asia, being accused of illegal activities and environmental crime. As introduced by Kramer and Michalowski's 1987 study, the transnational essence of such companies makes indeed even more difficult the conceptualization as crime of similar behaviors, since it crosses national sphere of action. Indeed, 'the use of a complicated ownership structure that employs a web of holding companies, subsidiaries, and investment funds locat-
ed in offshore tax havens, greatly thwarts public scrutiny of land deals and deforestation' (EIA 2015: 60).

5.2. Conceptualizing climate crimes

To make a step forward in the conceptualization of climate change as state-corporate crime we focus now on the connection between this issue and the environmental crimes coming from the relationship between state and corporate's actors in Peru. According to Robert White (2016), among many things:

Biophysical changes accompanying climate change provide the context within which criminal and morally corrupt activities involving organized criminal networks, transnational corporations and governments occur, as many of these are linked to the vulnerabilities arising from environmental degradation. Yet the consequence of such activities contributes to even more ruthless exploitation of planetary resources. Conditions are deteriorating due in part to these illegal and criminal activities, and it is likely that environmentally related crime we simple beget more of the same unless there is concerted response to these activities (White 2016: 738).

Conceptualizing climate change as crime means to show how, while the harms of such events daily grow, the main protagonists (most polluting and damaging industries and countries) continue to support policies and practices that contribute to increase this globally spread problem (White 2012). We are not arguing here that Peru became one of the major emitter of CO₂, it still remain a country with a low ecological footprint. What is questioned instead is that as country hosting part of the Amazon (one of the world most vulnerable and unique reserve of biodiversity, which provides eco-systemic services, is an important consumer of solar energy and is one of the biggest water reserve of the world) and aware of the tremendous impact it is facing due to global warming, the effort should be put on the preservation of this region and those lifestyles that protect it. Instead, since now, Peruvian governments proved to: prioritize economic policies that endanger the environmental integrity of this system; to lack in a realistic attitude to change its political-economic orientation; and to further the interests of few private individuals at the expense of the public sphere. Given the extension and urgency of global warming, 'failure to act, now, is criminal. If human activity is found to be at the genesis of climate change, then this implies that substantial change is needed to the dominant mode of production' (White 2012: 2-3). Therefore, showing an opposite direction on its economic policies, Peruvian governments proved to favour those environmental crimes that are undermining the global climate equilibrium.
This is indeed aggravated by the previous mentioned role of climate-regulator of the Amazon rainforest, whose preservation is scientifically considered one of the most advantaged action to take against climate change. According to Malhi et al. (2008) in fact, 'removal of 30% to 40% of the forest could push much of Amazonia into a permanently drier climate regime. Dry season rainfall, the most critical for determining vegetation patterns, is more often driven by locally generated convention and may be more strongly affected by deforestation' (Malhi et al. 2008: 169). Despite the myriad of scientific proofs, the Amazon region remains the least priority, even though these processes of deforestation are one of the main sources of greenhouse gas emissions in Peru. At present, with the exception of small pilot projects in some regions, there are no concrete policies in the country to combat deforestation, but instead projects that contribute to this process, such as the promotion of agro-business, especially palm oil and biofuels (ethanol and biodiesel) (Espinoza & Gonzales 2014: 182-183). The environmental crimes identified in this work play then a key role. If the presence of absence of vegetation can influence climate regulation, soil and water conservation and enhance biodiversity, Amazon regions (already threatened by climate change) proved to be even more vulnerable due the symbiotic relationship between Peruvian state and the businesses of large-scale palm oil plantations. According to Espinoza and Gonzales' study (2014) there is a widespread, profit-oriented, belief among governments and industry entrepreneurs that palm oil plantations do not contribute to deforestation. In reality, oilseeds are planted as monocultures occupying large areas of Amazonian soil, which leads to severe degradation of the same. Supporting this agricultural practice ends the balance that should normally exist in a forest, whereby manufacturing these fuels have a very high environmental price. 'It is very useful to understand this type of processes that occur in Amazonia due to human actions, since (from them) we can understand the magnitude of the connection between these and the intensification of the effects and consequences of climate change' (Espinoza & Gonzales 2014: 183; translation mine). Furthermore, it is important to underline that as long as there is an abundance...
dance of forest land available for adjudication by regional governments and the Ministry of Agriculture and Irrigation (MINAGRI), and as long as there is limited capacity to ensure compliance with forest law and regulations, it is unrealistic to expect companies to focus their efforts and capital to develop palm oil plantations on deforested or degraded lands. These lands are very diverse in ownership and are distributed in a very heterogeneous way, which implies higher purchase costs for aggregation (time and other transaction costs) and land preparation. 'Instead, the sale of (illegal) timber coming from deforestation can significantly offset the costs of land preparation and establishment of plantations' (USAID 2015: 32; translation mine).

Concluding, we should put attention on the years to come, considered the critical ones to avoid the scientifically recognized limit of 30% of Amazon's deforestation, which could mean a no-return point in the fight against global warming. Until now Peru has demonstrated not only to continue adopting profit-oriented policies that damage the integrity of the rainforest, but has further proved that, due to: political powers and lobbies pressures; indiscriminate corruption; loose institutional structure; and the absence of a regulatory structure; it has failed in those climate change-related policies developed until now (of adaptation and/or mitigation), considered (willy-nilly) useless. As a matter of fact, quoting an engineer of the NGO Asociacion para la Investigación y Desarrollo Integral (AIDER) in Pucallpa, Ucayali:

On the one hand there is the effort of these mechanisms, as the case of AIDER with the communities, and on the other hand there is deforestation for palm oil production, for thousands of hectares ... and part of these plantations are made in secondary forests, or primary forests. They are even deforesting to increase them, then, no matter how much effort these initiatives, like ours, make, they will always be something palliative, and wont generate much impact. What is need is a effort at national level, or even at the Amazon level ... Yes, there are strategies against climate change that have been produced, but the implementation of these policies is missing. And time is passing, and there are only singular nails, not a multi-sectoral effort, regional or national, to reduce emissions (P1; translation mine)\textsuperscript{37}.  

\textsuperscript{37} Anyway, according to Alexa Eunoé Vélez Zuazo's article for Mongabay (2017), we should take note that new technologies of mapping and monitoring deforestation (as the Monitoring of the Andean Amazon Project-MAAP), have showed that small-scale agriculture is responsible for 80% of the deforestation recorded in the Peruvian Amazon, between 2001 and 2015. This does not mean that large-scale agriculture should be overlooked, in fact from 2013 new large-scale oil palm plantations were detected and accuse of deforestation, including those managed by the controversial Group Melka (as showed in this dissertation's analysis) (Vélez Zuazo, A. E., 2017. Peru lost more than 1 million hectares of Amazon forest over a period of 15 years. Mongabay, [online] 18 May. Available at https://news.mongabay.com/2017/05/peru-lost-more-than-1-million-hectares-of-amazon-forest-over-a-period-of-15-years/ [Accessed 21 May 2017]).
The deforestation of the Amazon is an environmental climate-related crime, and Peruvian state and transnationals of palm oil industry as the Melka Group have shown to be involved in such crime. Therefore, claiming that these harmful relationships between state and corporations are a form of state-corporate crime, lead to the further conceptualization of climate change as state-corporate crime.
6. Conclusion

The aim of this dissertation was to present an analysis on the environmentally and climate-related issues arising from the harmful relationship between public and private actors in modern Peru. Taking as main actors: Peruvian governmental institution, and national-economic policies of exploitation of soil and natural resources; and the palm oil industry, represented by the Melka Group operating in the Amazon regions of Ucayali and Loreto; this work aimed to make a step forward in the theoretical conceptualization of climate change as state-corporate crime. To reach the goal, by means of a qualitative case-study method, and the strategy of triangulation, the dissertation was developed in three main levels: the presentation of the theoretical frameworks underpinning the work, and the methodological approach chosen; an explanatory presentation of the case-study, general background and the powers and interests behind the main actors relationship; finally, the empirical analysis developed through the theoretical and integrated model of state-corporate crime of Kramer and Michalowski (Table 1).

Despite the diffuse literature on climate change, this dissertation was intended to give a different analytical point of view. So far, most of the studies done with the purpose of confirming and explaining the conceptualization of climate change as state-corporate crime, build on the analysis of the most polluting countries, such as India, US or the European Union (Bradshaw 2014; Bradshaw 2015; Kramer 2013; Lynch et al. 2010). This work's purpose was to highlight a different reality: how a country as Peru, currently considered of low ecological footprint, and with no-obligation to mitigate (but home of one of the most valuable resource of biodiversity and CO\textsubscript{2} reserve) could, by means of the definition of national laws (environmentally and economic-related) burden climate change. In this optic, the idea was to give a further contribution to the studies of climate change and environmental crime, focusing instead on the analysis of those territory, as the Amazon, whose preservation has been identified as mayor tool against global warming and which is instead harmed by the relation between private interests and governments.

The analysis here developed was driven by the data collected during a five months field research in the selected territory nearby Pucallpa, Peru, where I came into contact with several Shipibo indigenous communities, and social and political actors active on the climate change and socio-environmental crimes fronts. These data highlighted both: the intensity of the impact of climate change in this area, especially among the most vulnerable populations such as
indigenous Peoples; and the struggles of local communities, NGOs and social movements against the irrational exploitation of the environment by public and private actors. At a later time, second resources on the two main subjects (Peruvian government and the palm oil industry – The Melka Group) where collected and applied in the analysis here presented, which showed that: the consequences of Melka Group's harmful behaviors in Loreto and Ucayali are a violation of international standards of conduct and can be prosecuted for environmental crime; that Peruvian government has supported and abetted such crimes, becoming an accomplice of its wrongdoing (as showed by the case of Santa Clara de Uchunya in Ucayali); that these crimes are favored not only by the collusion of some public officials, but also by the non-implementation of the legal framework in this matter, and the lack of an effective and adequate regulatory system; again, that Peruvian policies for climate change adaptation and emission's mitigation are failing in their purposes. The results of the analysis confirm the applied theory of state-corporate crime in such a contest, and call for the conceptualization of such crimes as state-corporate crimes. Furthermore, the analysis highlights that climate change is locally linked to the high current level of deforestation, and that the climate balance is even more at risk with new land-exploitative projects to come, and the latest “legislative packages”\(^{38}\). If it is here showed that such criminogenic behaviors are first of all felt locally (due to increased deforestation, environmental pollution, dispossession of indigenous lands, and an increased perception of global warming), we can now surely assume that: the long-term development of these harmful policies and relationships could, in the short term, have a global impact; validating the assumption according to which climate change is conceptualized as state-corporate crime, and answering to the research questions.

It must also be underlined that Peru has proven to have established a process of normalization of those standards of conduct harmful for: the environment; Amazonian indigenous peoples; and small producers and peasants. This same process of normalization could lead to erroneous reading of the data and the missed criminalization of those involved, assuming that, through Lynch \textit{et al.} (2010) words, 'in the contemporary world, “normal” government operations have been greatly expanded so that behaviors that were once considered immoral or an anathema to democracy are now considered acceptable and normal' (Lynch \textit{et al.} 2010: 230). To make no mistake, we must point out, once again, the fundamental role of Peruvian and international civil society (in the form of social movements and national and international

\(^{38}\) This could includes the Legislative Decrees 1333 and 1292 reported in this thesis, or the recent proposal for the reduction of air quality standards which, according to different sources, is aimed to the rehabilitation of the Oroya refinery, in Junín, the sixth most polluted place in the world (A1; translation mine).
NGOs), which, showing a different judgement, urges the violation of internationally recognized standards for the protection of human and environmental rights.

While the analysis illustrated the broad state-corporate relationship and injurious collaboration related to environmental and climate issues, we should anyway consider several limitations. First, as previous mentioned, the study focuses on one single case-study related to a small Amazon area, and only one single actor of the gigantic industry of palm oil, Melka. In line with that, while attention was here directed toward those policies and projects that promote the development of large-scale palm oil plantations, we could also consider other invasive industrial sectors, such as: exploitation of subsoil resources; mining industry; illegal logging; and mega-projects of infrastructures and hydroelectric power plants. During the study of data, in fact, many official correlated documents accusing of similar injurious behaviors other industries came across, claiming for the Peruvian state's involvement into environmental crime. Even if this was not the focus of this work, it is indeed worth to consider that an in-depth analysis could highlight interesting correlation between more actors in the same territory, and conduct to alternative levels in the analytical conceptualization of climate change as state-corporate crime. Same observation could be done for the temporal limits imposed to the analysis. Choosing to take into account only the last decade of events does not allow to fully address those historical processes involved in the state-corporate crime of climate change in Peru. In any case, we should consider that the short historical data presented in the empirical chapters are confirmatory of the analysis's results. Indeed, further studies through which collect more historical data are required, especially concerning Peruvian complex legislative framework. Finally, following again the study of Lynch et al. (2010) on the politicization of global warming under the Bush administration in US, we need to underline that this study (as most of similar studies about the criminogenic essence of climate change) takes into account all the reported processes within a particular and restricted cultural context (Lynch et al. 2010: 234). Therefore, far from willing to fully confirm the same result in different countries or regions, it is important to highlight, one more time, how further Latin American cross-national and multidisciplinary studies (at least between the different countries hosting the Amazon forest) could give a tremendous contribution to the study of state and corporate relations, and to the conceptualization of climate change as state-corporate crime.

To conclude, as mentioned in the introduction, this study was though as a preliminary analysis on the current issues, environmentally and climate-related, arising in the Peruvian Amazon, with main purpose to develop a solid base for in-deep-studies. To highlight those
harmful mechanisms underpinning modern state-corporate relationships, promoter of environmental crimes such as global warming, this study lays the foundations for future researches, aware of the topic dynamism. Indeed, the current and constant transformation of public and private relationships, as well as the upgrading of Peruvian legislative structure, could lead to different analytical results in the future. In any case, the analysis confirms to be consistent with the application of the theory of state-corporate crime related to the environmental degradation of the territory between Northern Ucayali and Southern Loreto over the last ten years.
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**Books**


**Articles**


**Online Articles**


**Reports**


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Online Newspaper


Blog and websites


Official Publications


Appendix

Appendix 1: Interviews

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<td>01/10/16</td>
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<td>Lily La Torre</td>
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<td>Asociacion para la Investigacion y Desarrollo Integral (AIDER)</td>
<td>16/11/16</td>
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<td>Spanish</td>
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<td>12/12/16</td>
<td>Paoyhan</td>
<td>Spanish</td>
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<td>Antonio Zambrano</td>
<td>Movimiento Ciudadano frente al Cambio Climático (MOCICC)</td>
<td>April 2017</td>
<td>Skype Interview</td>
<td>Spanish</td>
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Appendix 2: Public Events

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<td>21/10/16</td>
<td>CC.NN. Santa Clara de Uchunya, Ucayali, Peru</td>
<td>The Struggle of Santa Clara against the palm oil TNC Melka</td>
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<td>Workshop NO-REDD+</td>
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<td>01/11/16</td>
<td>Pucallpa, Peru</td>
<td>Fake Solutions for Climate Change. The economic interests behind REDD+</td>
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<td>Palma aceiteira en Ucayali</td>
<td>Defensoria del Pueblo</td>
<td>November 2016</td>
<td>Pucallpa, Peru</td>
<td>Developments, social conflicts, and future prospects for the palm oil sector in Ucayali</td>
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<td>Presentation of the New Association of Young People of the Native Community of Santa Clara de Yarinacocha</td>
<td>Asociación de Jóvenes Indígenas de la Comunidad de Santa Clara de Yarinacocha</td>
<td>01/12/16</td>
<td>CC.NN. Santa Clara de Yarinacocha, Ucayali, Peru</td>
<td>Ideology, goals and projects for the community by the new association</td>
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<td>Voces de la Amazonia: Cambio climático sus efectos y las acciones para enfrentarlo</td>
<td>Movimiento Ciudadano contra el Cambio Climático (MOCICC)</td>
<td>30/03/17</td>
<td>Webinar</td>
<td>Cambio climático, sus efectos y las acciones para enfrentarlo, con miras al VIII Foro Social Panamazónico (FOSPO)</td>
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