

Department of Sociology and Public Policies

Ecology on the horizon of China's project of national development: Ecological Civilization as a paradigm

Rui Miguel da Cunha Campos

Dissertation submitted as a partial requirement for obtaining the master's degree in International Studies

Supervisor:

Doctorate Nelson José dos Santos António, titular professor ISCTE Business School - Instituto Universitário de Lisboa

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ACKNOWLEDGMENTS

To my family and friends and to all of those who have been part of my journey. In their own way, they have influenced me to persist and never give up.

"Philosophers have hitherto only interpreted the world in various ways; the point is to change it." Karl Marx, Theses on Feuerbach

SUMMARY

Alterações climáticas, aquecimento global ou sustentabilidade são palavras que estão na moda desde há 10 ou 15 anos. Poderosas imagens a retratar a poluição são frequentemente utilizadas para demonstrar isso mesmo e não são raras as vezes que essas imagens retratam a situação na Républica Popular da China. Preconceito ocidental em muitos casos, mas a realidade em todo o caso é evidente. Mais do que apontar o dedo, a questão deve centrar-se em entender o contexto histórico da China contemporânea e perceber os desenvolvimentos teóricos e práticos mais recentes para combater certos desequilíbrios na sociedade.

O conceito de Civilização Ecológica é o culminar do caminho traçado pelo gigante asiático em direcção á sustentabilidade. A sustentabilidade dos seus planos de desenvolvimento nacional, mas também do seu sistema político e económico. Com isso em mente, procurámos desvendar um pouco mais sobre este país, a sua histórica recente e a sua relação com o meio ambiente através de diferentes perspectivas e tendo como pano de fundo a nossa pergunta de partida e respectivas hipóteses. Trata-se, no fundo, de compreender a recente viragem ecológica Chinesa à luz de um projecto de desenvolvimento nacional marcado por um percurso histórico complexo.

Palavras-chave: Sustentabilidade, Ecologia, Civilização Ecológica, Desenvolvimento, China

ABSTRACT

Climate change, global warming or sustainability are buzzwords nowadays and have been for at least the last 10 to 15 years. Powerful images of smog, polluted rivers and heavy industry polluting are frequently utilized to demonstrate a certain point and often these images are taken from the People's Republic of China. Western prejudice towards the country in most cases, reality however is clear. More importantly than pointing culprits, the question should be centred in understanding China's historical context and from there to understand the more recent theoretical and practical development towards fighting certain unbalances.

Ecological Civilization is the culmination of China's path towards sustainability. Sustainability of its national development goals, but also of its political and economic system. With that in mind, we sought to help unravel a bit more of this country's recent history and its relationship with the environment through different perspectives and with the research question, already mentioned, as a guiding principle. In the end, this is about understanding China's recent ecological swing considering the national development project that is marked by a complex historical path.

Keywords: Sustainability; Ecology; Ecological Civilization, Development, China

LIST OF ACRONMYNS

- CPC Communist Party of China
- **NEP** New Economic Policy
- PRC People's Republic of China
- TVE- Township and Village Enterprises
- SD Sustainable Development
- SOD Scientific Outlook on Development
- UN United Nations
- UNFCC United Nations Framework Convention on Climate Change
- **USA** United States of America

WCED – World Commission on Environment and Development

5YP – Five Year Plan

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INTRODUCTION

The People's Republic of China, founded in 1949 after the Communist Party, led by Mao Zedong, seized power has gone through conflict, turmoil, reform and growth. Nowadays, the country is quickly becoming the world's leader in ecological policies and renewable energy. Decades of economic growth, with little to no regard for the environment, have prompted a series of high-profile plans to fight against pollution and the other costs of a development model that has put quantitative growth as number one priority.

Pollution and ecological destruction are problems that affect the entirety of the globe, but more importantly than that, the poor and subaltern will be the ones to suffer the most the consequences of a development path that creates inequality and injustice.

More than ever, tackling these issues is part of mainstream politics. It is also present in almost every sector of the society. Corporations, public institutions, non-profit organizations, schools, political parties, cinema, television. Environmental conscious discourse and *propaganda* surrounds us. Some would say we live in the age of sustainability, which is highly arguable, but in general it is safe to say that there has been an awakening to ecological practices. It permeates our daily life.

Personally, environment related problems have always sparked interest. China's newly revigorated interest in production of clean energy and political commitment to creating a more sustainable society and beautiful country have reinforced that same interest. A country so big, with so many people that is still in a very complex process of economic and social development, marked by internal and external challenges is leading the way, in many sectors of sustainability and renewable energy. What will this mean to China? What will it mean to the rest of the world?

In this thesis, titled "Ecology on the horizon of China's project of national development: Ecological civilization as a paradigm," we want to critically explore China's development path since 1949 until the more recent periods. To write about Chinese ecology in the present, we also need to mention the material conditions that have shaped and been shaped by past policies. We will conduct a literature review, a conceptualization of sustainability and an historical review of China post-1949. From there, we will dwell into sustainability policies in China and arrive at the concept of ecological civilization. We aim to relate China's national development and its goals with the need – as Chinese leadership claim – to promote sustainability.

With that in mind, we hope to answer the following research question: Given China's commitment to environmental protection, visible in theoretical and legislative production, what

are the practical results of China's ecological civilization building from 2007 until 2017? From this research question, we want to test two different hypotheses.

The first one is: Will the Communist Party of China, given the noticeable acknowledgment of the concept of ecological civilization, seek a new and radical path of development? In this hypothesis, we want to find out if the Party has interest in pursuing the more radical theories closely tied to the concept that imply deep transformations in China's society.

The second hypothesis will look to find out if these new ecological policies are nothing more than the logical consequences of the plans first laid out in 2007, that indicate a long-term goal of building a harmonious socialist society by the second half of the 21st century. In other words, no big changes are expected but a progressive path towards the socialist horizon is the most likely scenario.

The key analysis will, obviously, focus on environmental aspects of China's recent development, but we believe that to understand China's ecological civilization it is fundamental to have a grasp of what has been China since 1949 and hence the inclusion of China's national development in our theme.

METHODOLOGY

This dissertation, a partial requirement to obtaining the master's degree in International Studies, was first conceptualized during "Research Design" course. We were asked to elaborate a pre-project with a research question and objectives. In the conceptualization, we explored some authors and ideas that could guide us in the future. Extensive reading was done on the subject of "Ecological Civilization"; Eco-socialism and China's national development. With the conclusion of the first phase of this project, we concluded that the work would mostly utilize qualitative information, although we did utilize quantitative data to explain some points of our work.

Following some exploratory research utilizing scientific articles and relevant books, we initiated the thesis composition with an extensive literature review that covered both the general aspects of this work, such as sustainable development to the more concrete issues that are related to China's Ecological Civilization and national development. This step of our work defined the remaining steps as it obligated to reformulate or question some assumptions we had regarding the theme.

The next section of the thesis, initially not planned, corresponded to the necessity of providing an historical contextualization from a materialist perspective. With that in mind, we sought to cover the most important historical moments of China after the 1949 Revolution, that brought the Communist Party to power. We focused on the socio-economic conditions and the policies applied.

After concluding the historical contextualization, we finally dived into the centrality of our work. In a more theoretical and political approach, we sought to write and reflect on political concepts such as Harmonious Socialist Society, Scientific Outlook on Development and Ecological Civilization. All three of them are interconnected and represent China's response to environmental problems and society's unbalances. Finally, we arrived at our conclusions, in which we sought to draw lessons and answers to our research question and hypothesis.

1. LITERATURE REVIEW

China's quest for a more sustainable development model has caught the attention of the academia. In this section, we will review the main debates – by confronting ideas and offering a critique - around China's environmental policy, development model and the concept of ecological civilization.

Extensive literature has been written about China's environmental situation. Its problems and solutions. Theory and practice. Results and recommendations. To seek a theoretical understanding of these policies, historical context is needed which is what we intend to do later. In this review of literature, we hope to combine different approaches to the theme of China's environmental policy, always conscious that we cannot hope to review all the literature as not all is relevant to the general theme and question of the thesis.

This is a work with a focus on the theoretical foundations of China's environmental policy and its practical results – mainly the concept of ecological civilization – but all theory has a material base which is why we find important to review both technical literature that deal with data and more theoretical works that analyse that same data. Practice is the criterion of truth, as Marxists would say.

Following a loose chronological order - beginning with Mao's era, going through Deng's policy of opening and the most recent political decisions and theoretical productions - we will review the most relevant works on the theme.

Sustainable development is an interesting concept, one with different dimensions and understandings. China has embraced sustainability as the country faces terrible environmental problems that will hinder further social and economic development in the long run. Ecological civilization is the result of a long journey marked by heavy pollution and a slow waking up to these problems.

The literature on this topic is vast and ranges from historical reviews of China's environmental policy to more detailed and specific analysis on local cases. There are more institutional based papers and those who focus on material conditions and the dynamics of interaction between different systems of Chinese society. We cannot review all these contributions to the topic because they are too many and at a certain point, repetition of ideas is to be expected.

As this is a China centred work, we will dive deeper into that specific country later in the thesis, but for now the goal is to offer a quick chronology on the history of the sustainability movement and its recent developments that eventually lead to the concept of sustainable development.

1.1 ORIGINS OF SUSTAINIBILITY

Sustainability as a field of study and as part of mainstream politics is recent. It is also a very broad term, one that encompasses different notions and fields of knowledge. If we read the Brundtland Commission report's definition of sustainability it is simply the idea of meeting the needs of the present without comprising the ability of future generations to meet their needs. It has a simple meaning. (WCED 1987:41) Kent Portney, regarding the definition of the concept, has to say. "Indeed, sustainability and its close cousins, such as sustainable development, and others discussed below, are perhaps best thought as general concept whose precise definitions have yet to be fully explained." (Portney, 2015: 13)

The Brundtland report named after the former prime-minister of Norway, Gro Harlem Brundtland, published in October 1987 is widely recognised as the document that popularized the term "sustainable development." Environmental conservation or preservation has its origins way before the 20th century's awakening to green policies. It is not a linear history and certainly not one we can even begin to study in this thesis. It encompasses different periods of history, different nations and a wide variety of justifications. Marco Amiero's and Lise Sedrez's book *A history of environmentalism*, aims to study that very same diverse nature and history of the struggle against environmental degradation. In the same vein, *Varieties of Environmentalism*:

Essays North and South from Ramachandra Guha and Juan Martinez-Alier, defends that environmentalism is not an exclusive concern of the rich countries in the North, but also of impoverished people from the South, as the poor are the ones most likely to suffer the consequences of climate change and ecosystem devastation.

According to Jacobus Pisani (2007), the term *sustainability* first appeared in German forestry circles, when Hans Carl von Carlowitz¹ advocated for a sustainable use of forest resources.

Sustainability is the term chosen to bridge the gulf between development and environment. Originally it came from forestry, fisheries, and groundwater, which dealt with quantities such as maximum sustainable cut," "maximum sustainable yield," and "maximum sustainable pumping rate." How many trees can we cut and still have forest growth? How many fish can we take and still have a fishery functioning at the end of the time? How much ground water can we draw and still have a viable aquifer at the end of the pumping period?" (Rogers *et al*, 2008:23)

Jeremy L.Caradonna in his book, *Sustainability: A History*, offers an interesting insight into the what can be considered the genesis of sustainable policies. It is a very Western-centric book, and the author does not deny it, since it doesn't explore in detail the practices of other nations and people, although there are small references parts of the globe. "To be clear, there was no explicit sustainability movement (or even environmental movement) in the eighteen century Western world. Nor was there a holistic conception of ecology, as there was in many of the indigenous societies that were in process of being brutalized by European imperialists." (Caradonna, 2015: 27)

The author also explains how this early concern for the environment was largely motivated by anthropocentrism, so the main factors invoked for environmental regulation were usually related to economic growth or the petty concerns of the nobility regarding their hunting trips. The Enlightenment influenced thought largely viewed Nature as nothing more than a thing to be conquered and used by humans.

Caradonna explains:

In looking at the emergence of sustainability in early modernity, it becomes clear that the concept has roots in forestry. This is not a coincidence. In the period before the widespread

¹ Hans Carl von Carlowitz(1645-1715), was a German tax accountant who is considered, by some, one of the first sustainability theory advocates.

use of fossil fuels, many world societies relied heavily on trees for fuel and other needs, and deforestation brought with it the spectre of societal collapse. (idem: 32)

Frank Zelko, in *The Politics of Nature*, examines the relation between forestry and politics. For the author, early environmental policies responded to the higher classes niche desires in an early stage, but as time passed they were also an efficient tool to control the masses:

However, as public opinion became increasingly important because of the print revolution and the Reformation, rulers had to convince the population that restricting access to forests was for the common good, rather than merely for the nobility's recreational pleasure. Thus, the political discourse shifted from preservation for the sake of the elite few, to conservation for the benefit of the masses. Henceforth, restrictions were increasingly justified on the grounds that wood shortages were becoming more and more severe, thereby threatening the entire populace (Zelko, 2014:720)

Infinite progress dominated, and still does, Western politics and economic thought. A storm, as Walter Benjamin said, that engulfs everyone and everything pushing the past aside and casting away those deemed unfit.² Jeremy Caradonna continues his analysis of the origins of the sustainability movement by revisiting the early resistances to the Industrial Revolution, such as the Luddite movement³ who organized the destruction of machinery deemed hurtful to their crafts and well-being or even the Romanticists, who despised the modern life inaugurated by capitalism and had a deep admiration for nature and its wonders. Friedrich Engels, one of the founders of modern communist theory, published in 1845 a book titled *The Conditions of the Working Class in England*. In it, he wrote a detailed account of the putrid conditions in which the workers and their families lived, making also a reference to the negative impacts of machinery and industrial production had on the environment.

Henry David Thoreau and his Transcendentalism advocating a life without luxuries and in harmony with nature is also an early demonstration of sustainability theory and reaction to the Industrial Revolution. Important economic, scientific and political thinkers at that time also reflected on the question of infinite growth and how it eventually would lead to an

² Walter Benjamin defined progress as a storm in his famous "Thesis on the Philosophy of History."

³ EP Thomson's "The Making of the English Working Class," reevaluates the Luddite movement with a more positive outlook, seeing it as a form of resistance against capitalism

environmental crisis. Thomas Malthus, John Stuart Mill, David Ricardo or even Charles Darwin to name a few.

It is remarkable to learn that many of the classical economists and, above all, Mill rejected an economic system that would expand indefinitely. Business-as-usual, pro-growth, neoclassical economists of the twenty-first century have overlooked this crucial aspect of capitalism as it was originally conceived. Even though Mill was not the most explicitly ecological thinker—he cared far more about social and economic issues—his defence of the stationary state plays a vital role in the economics of sustainability (Caradonna,2015:79)

The conservationist movement, which was very relevant in the United States during late nineteenth and early twentieth century, is another manifestation of sustainability inspired thought and practice.

Modern sustainability theory is different from what we briefly mentioned before. It has its roots in the ecological movement of the 1950's, 1960's and 1970's, a movement that not only concerned itself with the environment but also with other causes such as war or social injustice. It was during this time, as Caradonna explains, that the term "environment" gained an interconnected meaning or as Marco Amiero and Lise Sedrez said:

At the roots of several environmentalist struggles, we might recognize such a 'sense of place', that is a special bond connecting people to specific pieces of nature. Nonetheless, our understanding of the 'sense of place' is not merely a matter of individual taste but rather an evolving social process involving the collective cultures and practices through which the environment is represented, perceived and shaped." (Amiero; Sedrez, 2014:2)

During this period, environmentalists armed themselves with scientific evidence to back up their claims that modern industrial life was harmful to both nature and humankind. A handful of publications such as Rachel Carlson's *A Silent Spring (1962)* or Aldo Leopold's *A Sand Country Almanac (1949)* helped to raise awareness and shape the sustainability movements in the following decades.

As John Blewit points out." The 1960s and 1970s witnessed a growing concern that economic growth, development and lifestyle demands in industrial nations were undermining the ecological balance, economic stability and security of the planet." (Blewit, 2008:31)

From this point forward, the *green movement* gained a new impulse. A significant number of economists, such as E.J Mishan, Kenneth Boulding or E.F Schumacher presented

objections to the neoliberal dogma of infinite growth. To be clear, the criticisms presented were not new nor revolutionary as in the past many authors and theorists had pointed out the unsustainability of the capitalist system to both humans and nature. The significance lies mostly in the mainstream acceptance of the necessity to protect the environment and question the path of development being pursued.

So, what did this mainstream acceptance translate to? When speaking of sustainability or sustainable development, many authors tend to reference the book commissioned by the think-thank Club of Rome, titled *Limits to Growth*. The report, based on a computer simulation, tried to alert for the cataphoric consequences of *infinite growth* neoliberal-influenced way of thinking.

Up until that point, sustainability or sustainable development were not used as terms. Yes, there was a growing conscience about the need for societies to become more sustainable but as Simon Dresden explains, sustainability regarding the environment was first used, in 1974, by the World Council of Churches. Sustainable development saw its first utilization in 1980 by the International Union for Conservation of Nature and Natural Resources (Dresden, 2002:1)

In 1980 the Brandt Commission published *North and South: A programme for survival* in which it alerted for the danger of confusing development with growth. In 1983, the World Commission on Environment and Development started working on what would be the famous Brundtland Report, also known as *Our Common Future*, published in 1987 as already mentioned.

The Earth Summit, that took place in Rio de Janeiro in the year of 1992, was at the time the largest international conference held. Over than 170 governments and 2,500 NGO's, plus 8000 journalists participated in the gathering (Elliot, 2006:8). The conference produced the Agenda 21⁴ which remains a highly relevant document nowadays. In the following year, the United Nations created a commission for sustainable development. In 1997, the Kyoto Protocol was signed and in it there was a compromise to reduce greenhouse gases emissions. In 2002, 10 years after the first Earth Summit, in the city of Johannesburg world leaders gathered to reaffirm the declarations on sustainable development previously stated. In 2009 a UN Climate Change Conference was held in Copenhagen, it was marked by huge disagreements between different nations and produced no meaningful result. In 2012, again in the city of Rio de Janeiro,

⁴ Agenda 21 is non-binding action plan put forward by the United Nations to achieve sustainable development.

a UN Conference on Sustainable Development was held. (Caradonna, 2014: 149-151) More recently, we can mention the signature and entering into force of the Paris Agreement in the 4th of November 2016, also put forward by UNFCC.

1.2 SUSTAINABLE DEVELOPMENT: A CATCH-ALL CONCEPT

As we advanced through the different authors, who themselves have a wide variety of theoretical and ideological background, we could not help but notice the vague nature of sustainable development as a concept. Yes, we recognize the definition put forward by the Brundtland Report, but it is not enough given the possibilities of perversion of that same definition. In this section we will seek to define the concept following a literature review of different authors, ranging from diverse theoretical backgrounds.

The debate around the concept is essentially an ideological one. The word "sustainable" is vague and open to a great deal of interpretations and easily taken advantage of by political agendas. The same can be said about "development". If you pair those two together, you have a big problem in achieving a clear vision or idea.

Simon Dresden argues that the concept of sustainable development as a bridge between two fields. "The result of this aim for balance between environmental and economic concerns was a consensus on a definition that was at the very least rather vague Some have seen the vagueness as meaninglessness: you can claim anything as part of sustainable development." (Dresden, 2001:69)

The main tension inside the sustainable development debate revolves around the very nature of economic growth and development. Understanding these different views on the topic will help us create a framework of analysis to be utilized further into the thesis.

This debate, as all others, is marked by contrasting views. On one side, there are theories and their defenders of the liberal order and the capitalist system and the possibilities of achieving sustainable development through the market and international institutions. On the other side, stand those who oppose the market, the neoliberal order and capitalism, believing that the root of unsustainability lies in the laws that shape the economy and social order.

The tension between these two camps is old and perhaps best summarized in the introductory lines of the book *Limits to Growth*, where the authors write about, "a period of great transition- the transition from growth to global equilibrium." (Meadows et.al, 1972:24) And by global equilibrium, they mean a society where every individual has the basic material needs satisfied and is free to pursue its dreams according to the potential inside. This book is

often associated with the "*degrowth*"⁵ movement or the stationary state of John Stuart Mill. Indeed, the authors warned of the terrible future waiting for us if the growth model, based on infinite growth and consumption, was to serve as basis for the generations to come. While the predictions failed some of its predictions, the main idea behind the publication remains entirely valid and that is, capitalism- although the book never quite criticizes the system- is not sustainable.

What is growth, then? Is it a measurable through the Gross Domestic Product? Is it another word for the big corporation's profits? Is it the same as development? Neoliberal economists and theorists tend to think that there is no development without economic growth and so, for countries to become more eco-friendly or sustainable they would first need to grow and become rich, so in the neoliberal logic, growth is synonymous to development.

The problem in the growth-centric model of capitalism is that it tends to forget human development needs. Can we speak of sustainability when inequality and overall social injustice is still running rampant? The United Nations "Sustainable Development Goals" are a set of 17 goals to be achieved between 2016 and 2030, that cover a wide variety of aspects such as; poverty, education, gender equality, climate action, work conditions or energy reforms.(UN, 2016) Sustainability, in its present form, is far beyond the simple preservation of the environment or a bureaucratic administration of resources. Sustainable development, as acknowledge by the UN, aims to create sustainable societies and those societies are expected to satisfy the needs of the present but also of the future which, in theory, should push the appearance of new development models that tackle the urgent problems the world faces, such as poverty, war, pollution, discrimination, intolerance to name a few. Jeffrey Sachs (2015: 20) says that:

Sustainable development involves not just one but four complex interacting systems. It deals with a global economy that now spans every part of the world; it focuses on social interactions of trust, ethics, inequality, and social support networks in communities (including new global online communities made possible by revolutions in the information and communications technologies, or ICTs); it analyses the changes to complex Earth systems such as climate and ecosystems; and it studies the problems of governance, including the performance of governments and businesses.

⁵ The "*degrowth*" movement advocates the reduction of economic patterns that emphasize production and consumption. As the word indicates, the movement defends the downscaling of the economy and reorganization of priorities to social justice and environmental protection.

It is essentially the common notion of SD, with the added aspect of good governance. The same author, in his book "The Age of Sustainable Development," sees SD as a guide. A goal to be achieved by societies. "The basic point of sustainable development in that normative sense is that it urges us to have a holistic vision of what a good society should be. Sachs (2015:21)

If we read chapter two of the founding manifesto of sustainable development, known as the already mentioned, Brundtland Report, we can easily recognize that same attention to the four systems spoken of by Sachs. Both, the Brundtland Report and Sach's book, also commit the same mistakes of ambiguous speech and evasive narrative construction.

The use of vague speech and unclear messages, especially in "Our Common Future", has been pointed out by critics of sustainable development. One of those critics is Arturo Escobar:

Eco liberals believe that because all people are passengers of spaceship Earth, all are equally responsible for environmental degradation. They rarely see that there are a great differences and inequities in resource problems between countries, regions, communities, and classes; and they usually fail to recognize that the responsibility is far from equally shared. (Escobar, 1995:195)

Léle (1991) provides an interesting analysis on the concept of sustainable development and its open-ended nature. The author published the article at a time when SD was relatively recent in political agendas and mainstream politics, but even so he concluded that the concept, although good-willed, had a set of problems related to the different possibilities of interpretation and perversion by institutions, such as the IMF and the diminishing of its transformative potential. The author adds that there can be no sustainable development policy without relieving the poorest out of their precarious situations. Barrow (1995), mentioned that the ambiguous nature of the concept may help to create bridges between different opinions on sustainable development.

Connellly (2007), presents an interesting view on the ambiguity of the concept. More than a flaw of the concept, it is a consequence of the dispute that SD faces. Different political groups and interests have sought to appropriate sustainable development and utilize it to pursue agendas. The author gives the example that a more neoliberal approach will seek to promote economic growth while also showing some sort of environmental concern, but a more social justice focused interpretation will combine economic justice with ecological policies.

Sustainable development, much like democracy, justice or freedom is permeable to different interpretations and susceptible to contradictions. It is possible to define the concept in a broad sense -the definition utilized nowadays by the United Nations is much different and ambitious than the first put forward by the Bruntland Commission, but it still points towards the same idea of achieving development in the present without compromising the future generations. From that premise, it is possible to follow different paths, such as a moderate reform of the current system, which is what the Brundtland report called for, or a more radical one such as the one proclaimed by eco socialists.

A 2010 report to the UN's High-Level Panel on Global Sustainability *officially* confirms the weakness of the term. The authors argue that since the concept is so vague and susceptible of a wide variety of interpretations, little progress has been made around the world to promote sustainable development which is why – they say- the world remains unjust, polluted and facing dangerous threats:

The implementation of sustainable development has been and is hindered by the reigning policy orientation of development as purely economic growth. (...) There were huge expectations out of the Rio Summit, but these were quickly tempered, in part because of the emergence of a neoliberal economic paradigm. Post-Rio was a period of accelerated globalization and intensive interaction between nations in the areas of trade, investment, and expansion of capital market (...) The prevailing view has been that of sustaining economic growth, rather than sustaining the global ecosystem; and sustainable development has been subsumed under the globalization paradigm. (Drexhage; Murphy, 2010)

Redclift (2005), raises an important idea when questioning the Brundtland's Commission definition of SD:

People define their 'needs' in ways that effectively exclude others from meeting theirs, and in the process can increase the long-term risks for the sustainability of other peoples' livelihoods. Most important, however, the process through which we enlarge our choices, and reduce those of others, is largely invisible to people in their daily lives, although understanding this process is central to our ability to behave more 'sustainably.

Indeed, when speaking of sustainability, we should ask what do we intend to sustain? Is it economic growth? If so, then how is it possible to conciliate growth with the increasing need of protecting the environment, as without it there will be neither growth nor life. We should also consider the implications of rising economic disparities between the rich and the poor. A sustainable development model must be able to solve poverty related issues of the present. With that in mind, the future would look much more sustainable. Sadly, the concept of sustainable development has not acquired a transformative vision but has instead been appropriated by the hegemonic system. Still, even in its current form, one should look at the current UN Sustainable Development Goals as important indicators of what a sustainable society should aim to achieve.

1.3 CHINA'S SUSTAINBILITY

According to Muldavin (2000), who references the work of Mark Elvin and Cuirong Liu - titled: "Sediments of Time: Environment and Society in Chinese History" - there has been state intervention throughout China's history in protecting the environment since the age of the old dynasties. The review of literature will focus on contemporary China, since Mao's political term until present days. With this, we hope to describe and confront what different authors have written about the theme.

The country's number one priority since the rise to power of the Communist Party – although this can be said for any other nation in the world – has been economic growth. For China and its leadership, growth and development in the early days of the republic meant that the economic objectives had to be reached no matter the costs. It was an historical necessity to pursue fast development and to make China a highly advanced nation. Mao Tse-Tung thought of nature nothing more than a thing to be conquered and bent according to human needs.

The focus was to grow the heavy industry, such were the economic guidelines in 1958 that put emphasis in steel production. Throughout the country, be it countryside or in the cities, there were furnaces to produce steel. Obviously, intense mining and deforestation caused grave environmental damage, (Bu *et al*, 1994).

Lester Ross (1992) explains that the policy, during Mao's era, was based on resourceintensive growth that prioritized heavy industry, national defence industry or the aggressive expansion of agricultural production "by bringing new lands into cultivation and raising yields through multiple cropping and the intensive application of fertilizers and pesticides." The author traces this anthropocentric way of thinking and acting to the Stalinist inspired ideology of man over nature. An idealistic criticism perhaps, as one should pay close attention to the historical conditions at the time those policies were implemented and critically analyse them.

Academia and popular perception tend to picture Mao's China as chaotic, which to a certain degree might be true since all revolutionary processes tend to go through stages in which

different classes engage in political struggle, often in the form of violence. Mao's China was contradictory and so is China nowadays. It is contradiction, if we are to follow Mao's dialectics⁶, that forms the basis of development and progress. We will expand further on China's contemporary history later in this work.

The genesis of environmental conscious policies can be traced to a series of disasters that roused political and public reactions. "Fish died, and the beaches turned black in the coastal city of Dalian and contaminated fish entered the Beijing market from a badly polluted reservoir near Beijing." (Macbean, 2007). In 1972, still during Mao's government, the country entered a new phase in terms of its relationship with the environment or, so it seemed.

Both, Muldavin (2000) and Sanders (1999), made a comparison of environmental policies during Mao's era and Deng Xiaoping's. If we were to follow to the usual line of thought that portrays China's opening and reform as exclusively positive, we could possibly conclude that the environment also benefitted from this new outlook. That would be wrong, according to both these authors. For them, China's policy towards the environment remained largely unchanged through both the periods as neither state-imposed development goals nor market influenced economic development contributed to an eco-friendlier society. Still, and although a bit ignored by both authors, the country has managed to climb out of the dark pit it was put into by colonialism and imperialist intervention and in doing do, millions of people were lifted from poverty.

Sanders's work has the advantage over Muldavin's in terms of comparison, for it provides a more detailed account of the policies implemented during both periods. The author, although easily identified with a more liberal approach to politics and economy, recognizes that in China's case, reforms towards market economy were not in any way helpful for environment protection, suggesting that during Deng's period, marked by an obsession with growth and wealth creation, hindered the well-intended ecological policies.

Muldavin's work is a bit more specific and focused on the reform-era of the country. It was based on a long-term research conducted between 1989 and 1999 in three Chinese villages. The author explains how environmental policy must be applied in a way that also respects environmental justice or social justice. When speaking of the concept of entitlements which he defines as " the relationship between a claimant on an asset(rural peasants, urban laborers), an

⁶ On Contradiction is one of the most famous works written by Mao Tse-Tung. In it, the Chinese revolutionary exposes his own interpretation of dialectical materialism and Marxism considering China's historical reality during the late 1930's.

institution that grants access to the asset (the state, social norm, community institution), and the asset (tangible or intangible) itself," Muldavin sees post-reform China as a much more insecure and unstable country for the poor, women and elderly. He also observes how the market mechanisms compels people to grab short-term wealth, in a way that ignores the environment. A question of survival, in his opinion, because the state withdrew itself from proving basic social needs such as food or housing. His empirical findings allowed him to conclude that the villages where some degree of collective policies remained, prospered and allow its residents to live a better life.

Edmonds (2011) makes an interesting analysis on the evolution of China's environmental policy by also offering his perspective on the country's political problem such as lack of transparency. Much like any other author who writes about this theme, Edmonds points out that the People's Republic awakening to ecological issues was around 1972 after the Conference on the Human Environment that was held in Stockholm, but it only began to gain steam with the *Dengist* reforms. The author's analysis is politically centred as Edmonds prefers to ignore the economic structure of the country and the change produced after Mao, which in my opinion is a mistake for one cannot fully comprehend a country's problems without understand the material base of those issues. In that regard, both Muldavin and Sanders present a better case when criticizing China's model of development. Still, the comments on the lack of transparency and the bureaucratic blockage from local governments offer an interesting perspective and may constitute a point to explore further in the thesis.

Identifiable differences between Western produced literature and Chinese have been found during the review of literature. Westerners, especially if they seek some sort of political agenda, tend to write about China and its environmental issues with some degree - sometimes more noticeable - of arrogance. There is little effort to comprehend the particularity of Chinese history and economic system. Perhaps it is the consequence of an almost exclusive institutionalfocused analysis that cannot grasp the material aspect of socio-economics and how it influences every other aspect of Chinese society.

It is also possible to find differences in the tone and language utilized. For example, Chinese scholars will criticize certain policies of their government and point out the insufficiencies of the current system, but they will do so without questioning the institutional framework in which these policies and problems arise. For some western academia, the conclusions presented seem to always go in the direction of changing the political system and further pursuing market-oriented reforms, which reveals the true intentions of some authors when writing about China. It is exactly what Bao (2006) proposes to do when analysing the evolution of environmental policy in the People's Republic. The author defends that historical contextualization is needed to fully understand the changes in environmental policy and points out that scholars in the West tend to ignore this necessity.

For the author, the process of opening and reform initiated by Deng Xiaoping constituted an important landmark in terms of environmental protection. It allowed for the timid ecological concerns expressed still during the Mao era, to materialize. These happened at the highest level or as the author says, the Chinese government adopted a high-to-bottom approach which should not constitute a surprise if we consider the centralistic nature of the politics in China. Legislation, scientific development and changes in the economic structure to accommodate for these concerns.

Still, for Bao and an opinion I tend to agree with, a contradiction remained. A contradiction between economic growth and environmental protection. Ignoring linear analysis on the problem, the author affirms that advances have been achieved, but at the same time much more must be done. From reading this paper, we can follow the contradictory process of China's environmental policy and path towards sustainable development. Chronologically, the analysis comprehends the period from Deng Xiaoping until 2006, which is exactly the year before China starts to enter a new phase, marked by the emergence of sustainability discourse in the country.

Tsang and Kolk (2010) further explored the difficulties in achieving a balance between growth and eco-friendly policies. On a local political level reforms since 1978 have given more decision power to local governments but at the same time local leaders are expected to fulfil centrally planned objectives that tend to focus on economic growth and development, creating a dissonance between theory and practice. Another important contribution of this work is related to China's energy situation, which in my opinion constitutes a major contention point for the future of the country. Essentially, for the authors, without changing its energy policy and infrastructure the People's Republic won't be able to fulfil its sustainable development goals. The reliance on imported energy sources, oil being the biggest case, presents a threat to national security of China so further developing renewable energy might be the best course to take as it promotes both energy security and sustainability.

Ma *et al* (2010) present a detailed account of China's energy deficiencies such as reliance on coal and oil and low energy efficiency that lead to suboptimal economic performance, high pollution and environmental disasters. For an integrated problem, the authors propose an integrated solution. There can be no sustainability without cleaner energy

production and efficiency. They also advocate further integration between economic, social and energy systems.

Speaking of integration, Cao *et al* (2010) defend that environmental protection must not take priority over development and eradication of poverty. If policies that seek to protect the ecosystems displace people or no longer give them the possibility to sustain their lives, then the government must give them alternatives either by offering them new jobs or increasing social protection for rural residents. If not, then these policies might produce effects that are the opposite of the desired outcome since people will be left without an alternative. A tension that is yet to be resolved, and well-remembered in this article, is the divide between urban and rural areas which is further increased with conservation policies that do not consider the well-being of rural residents.

Tiejun *et al* (2010) speak critically of China's development model, pointing out that the problems faced nowadays are motivated by an excessive reliance on Western models of development that seek to homogenize culture and eradicate indigenous knowledge, thus creating the conditions for the extraction of surplus from the workers. It is against this normalization and destruction that the authors defend the idea of a New Rural Reconstruction Movement (Both, name and objectives, have their inspiration in the social movement from the late 1920's) as an integral part of the "historical period of Ecological Civilization." A movement that seeks sustainability while retaining indigenous culture and traditional agriculture practices. It seeks to combine development, environmental protection and grassroots politics. A view that contrasts largely with the high-to-bottom approach that characterizes Chinese environmental policies.

Theoretically speaking, we are interested in understanding the concept of ecological civilization. Its different dimensions and implications for Chinese society. This concept has sparked interest both inside the country, but also in western academia. From more moderate approaches to more radical and transformative, scholars are trying to grasp the meaning and practice of this concept. In this section of the literature review, we will look at the debates and compare them.

Pan Yue (2006), one of the biggest advocates for ecological civilization in China, speaks of the concept as a historical necessity and opportunity for the country to innovate by not pursuing the same western models of development, models that he points out as being the culprits of the current situation in China and the world. For the current vice-president of the Central Academy of Socialism in the country's capital, ecological civilization – as a state of harmony between humans and nature, but also harmony between humans – is deeply rooted in

Chinese history and belief systems. He refers Taoism, Confucianism and Buddhism as examples and while those systems do not present a materialistic view of society, Pan Yue stresses that ecological civilization is only possible to achieve within socialism, but socialism in China must not treat nature as something to be conquered. Instead, China should continue to build socialism with an ecological concern, thus gradually constructing harmony between humans and nature. In Pan Yue's article there is a clear romantic view of China's past as he largely values the ideas of harmony from ancient China, but this romanticism is enriched by the conscious of the current situation in China. Instead of a reactionary appeal to old ways, Pan Yue sees the past as a possible solution for the future, which would combine the historical values of Chinese society and socialism with Chinese characteristics.

Wang *et al* (2014) present a radical approach to the concept and China's situation. For the authors, the question of environmental destruction is not only a matter of a weak legal framework. In fact, they argue, China has had extensive law production since 1979 but it has amounted to little, since environmental laws are often ignored by big companies and even local governments, the so-called interest groups. They add that the worship of economic growth and anthropocentrism is a plague that impedes the construction of an ecological civilization.

In alternative to this damaging worship, the authors argue for a reframing of political and economics in China that seeks to combine ecological Marxism and constructive Postmodernism to counter the disruptive effects of the capitalist mode of production and modern thought – with its deification of growth- in both humans and nature. To a certain degree, they recognize positive signs in Xi Jinping's leadership. The inscription of the goal of building an ecological civilization in the Party's constitution- during the 18th Congress- is one of the examples given.

The article, in many points, converges with Pan Yue's ideas of seeking a reconciliation with the past, or even Tiejun's New Rural Reconstruction Movement, both already mentioned here. Another unifying point between these articles is the radical conceptualization of ecological civilization as something more than just "green capitalism." Ecological civilization is a quest for balance and harmony against the chaos of modernity. A rediscovery of the past with eyes set on the future. For Magdoff (2012), capitalism is unable to offer material conditions that allow people to better their lives as it promotes competition, individualism, creates inequality and fosters wars which, as we know, is unsustainable. For the author, ecological civilization equals socialism (economy under social control), that same economy must function with the sole purpose of fulfilling basic humans needs while also respecting the environment.

Closely tied to ecological civilization is the concept of a low-carbon economy which is the opposite of China's current economic structure, marked by high energy intensity, low efficiency and outdated technology. Zhang Wei *et al* (2010) envision ecological civilization as a mean to achieve a new economic model characterized by circular economy, high efficiency and technological innovation (especially green technology).

Obviously, when speaking of ecological civilization, we must ground the discussion on a material level. The romantic view of certain authors is valuable when theorizing possible solutions, but ecological civilization is an historic necessity with concrete reasons to implement. At least that is what Xunhua *et al* (2013) believe. Analyzing the dialectical relationship between man, technology and nature, the authors see natural resources as the foundation of all societies. The chaotic nature of industrial civilization – the authors are careful not to use capitalism in any part of this text – with its laws of constant growth and quest for profit have placed enormous pressure on nature, thus endangering not only human life, but all life on Earth. Labor and technology must therefore conform to sustainable development towards low-carbon economy and ecological civilization.

Lu *et al* (2016) reflect on China's ecological civilization through Joel Kovel's Eco socialism. The authors consider that currently China is far from the radical transformative policies proposed by Kovel's Eco socialism that speak of social transformation through a complete reorientation of the economic structure that would be optimized to serve the interests of the majority while respecting the environment. Xi Jinping's efforts in promoting ecological civilization and the Party's acknowledgment has translated into national plans promoting a more efficient economy and resource utilization. Also, the planned improvement of local-level democracy and decision making and the development of ecological sensibility through mass education may further help the cause of building a socialist ecological civilization.

Huan (2016) sees ambiguity as the biggest enemy for the concept of ecological civilization, or socialist ecological civilization. Recognizing the advances and signs given by the Chinese government, the author considers that the concept needs to be further clarified not only in Chinese academia but also in Chinese politics, a task that has proven difficult given the divide between both. The risk if the ambiguity continues, he considers, will be a integration of the concept in the capitalist framework. Conceptualization of ecological civilization is one of the main points in our thesis. The points discussed by Huan and the questions raised present us a good starting point to our very own research questions, mainly the quest for the meaning of ecological civilization for the Chinese Communist Party.

Concluding this review of literature, a short summary and commentary is needed. We tried to gather a wide variety of authors, ideas and timeframes. From a more technical approach to a more theoretical, the consensus is that China has progressively improved its environmental policy since 1949. From our perspective and from the reviewed literature, environmental policy must not focus exclusively on the environment as that obsession may produce opposite results and the same can be said for economic growth. Ecological civilization is the result of seeking development in all areas of human life while maintaining balance in the environment. The question, however, remains. Will it be a catapult for new social and economic practices, or just a greening of the current system? A question we hope to answer in our final conclusions.

2. UNDERSTANDING THE CHINESE DEVELOPMENT PROCESS: A HISTORICAL CONTEXTUALIZATION

To understand China's environmental policy and its most recent developments, historical contextualization is needed. In our review of literature, we followed the same premise of seeking context and a material justification for theory. In this chapter, however, the aim is to deepen the analysis by providing an account of China's historical development model. We will mostly focus on Mao Zedong and Deng Xiaoping's period, as we consider them to be the defining eras of contemporary China.

The chapter will utilize Elias Jabour's doctoral thesis and book, titled "National Project, Development and Market Social in Today's China" as a foundation, while also complementing the information with other authors and ideas. We believe this book to be a reference in understanding contemporary China, for its analytical rigour and theoretical richness that surpasses the vulgarity of what is usually written about China. From the old dynasties to present leaders, Jabour traces the millenarian roots of the Chinese state while also providing a rich analysis on the recent history of China, its accomplishments, contradictions and short-comings.

2.1 A SMALL THEORETICAL SIDE-NOTE

Before advancing, a few key concepts need to be addressed as they are fundamental in understanding Marxist philosophy, which in turn is central to understand some of the works and ideas being presented in this chapter and the overall idea of the thesis. Dialectics and materialism permeate every sphere of Marxist thought. This chapter does not intend to discuss the particularities of Marxist philosophy. Instead we hope to provide some basic notions, as these will enrich the analysis further on.

Central to Marxist political thought is conceiving history from a materialistic point of view, that is:

The materialist conception of history starts from the proposition that the production of the means to support human life and, next to production, the exchange of things produced, is the basis of all social structure; that in every society that has appeared in history, the manner in which wealth is distributed and society divided into classes or orders is dependent upon what is produced, how it is produced, and how the products are exchanged. From this point of view, the final causes of all social changes and political revolutions are to be sought, not in men's brains, not in men's better insights into eternal truth and justice, but in changes in the modes of production and exchange. They are to be sought, not in the philosophy, but in the economics of each epoch. (Engels, 1880)

The quote above, from Friedrich Engels, summarizes historical materialism. From that formulation, Marxism has sought to explain the evolution of society through the clash of antagonistic classes, and so, as Marx and Engels (1848) stated in the opening lines of the Communist Manifesto:

The history of all hitherto existing society is the history of class struggles.

Freeman and slave, patrician and plebeian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another, carried on an uninterrupted, now hidden, now open fight, a fight that each time ended, either in a revolutionary reconstitution of society at large, or in the common ruin of the contending classes.

Contrary to what sometimes is said, this is not a linear process. In the new framework of social reproduction, the old ways are still present. For example, when capitalism triumphed in England, traces of feudalism persisted in the country for some time. At the same time, the seizing of power by the revolutionary class, in any epoch, does not guarantee the definite victory over the old powers.

Contradiction is an inherent part of life, and for Marxism – in the form of class struggle – it is from contradiction that arises the possibility of evolution. Mao Zedong explains this process:

We often speak of "the new superseding the old". The supersession of the old by the new is a general, eternal and inviolable law of the universe. The transformation of one thing into another, through leaps of different forms in accordance with its essence and external conditions--this is the process of the new superseding the old. In each thing there is contradiction between its new and its old aspects, and this gives rise to a series of struggles with many twists and turns. (Zedong, 1936)

These contradictions are not idealistic formulations, but the result of clashes between a mode of production and the social reproduction forces. Or in other words, how at a certain stage of development the mode of production no longer permits the evolution of social reproduction forces, on the contrary it hinders the evolution process. As we shall see next, the Chinese development process is full of contradictions, from its inception until present days.

Perhaps the most important contribution made by Professor Jabour's thesis is the idea that post- 1978 China is the logical sequence to Mao's China, or in other words, we would not be witnessing the Chinese miracle without the policies implemented during Mao's China, but before going diving into that idea, we will present an outline of China's economy and society from 1949 until more recent times.

2.2 EARLY MAOISM (1949-1955)

Early policies adopted moderate policies with the goal of economic modernization, in similar to Soviet Union's NEP of the 1920's. The goal was to create the material foundation of socialism, by generating quick economic growth and modernization. The justification was simple for Chinese leaders. China had an extremely backwards economy with little industry and its agriculture was mostly family-based. As Bramall points out. "the hallmark of Chinese economic policy-making before 1955 was gradualism. Early collectivization was ruled out. The nationalization of industrial assets proceeded slowly. Material incentives were retained in order to motivate the workforce." (Bramall: 2008, 86)

These policies achieved moderate success in promoting industrialization – a focus was put on heavy industry much like the Soviet Union did during Stalin's rule- and overall economic growth. It was not enough however as light industry and agriculture production levels were not at the desired levels, plus the rural areas were neglected. A problem that still troubles the Chinese society nowadays.

In terms of agriculture policy, moderation is also the word that can be used to characterize early Communist policies in China. The goal was collectivization, but the means to achieve that required the further development of the forces of production. Although there was indeed a policy of land redistribution in favour of the poorer peasants, the rich peasant's property rights were left mostly untouched. The justification was that the surplus created by the rich would promote the much-needed agriculture rejuvenation and facilitate the transition to collectivization.

The early years of Communist governance in China are best summarized in the following quote:

For the vast majority of the Chinese people and for their new Communist leaders, 1949 was a time of great optimism and hope. But their hopes were tempered by a remarkably pragmatic recognition of what was possible. And what was possible at the time was essentially the completion of the long-delayed "bourgeois "phase of the Chinese revolution- national political unification, agrarian reform, and what promised to be a long and arduous process of modern economic development. (Meisner: 1999, 56-57)

Bramall (2008, 113-114) concludes while there was an important improvement in terms of economic and social development, this development was far from reaching its full potential. External factors such as US imposed embargo on the country's economy, the effects of decades of war and the participation the Korean War are examples of those constraints. Still, the author claims that more could have been done in terms of agricultural collectivization as it would increase productivity and free more labour to accelerate industrialization.

2.3 THE GREAT LEAP (1955-1963)

The year of 1955 marks the end of gradual transition to socialism, as collectivization of the agriculture and nationalization of the economy entered full steam. Faced with unsatisfactory results of the moderate policies implemented since 1949, political leadership – with Mao Zedong at the head – pushed for a more radical approach that culminated in the set of policies known as the Great Leap Forward in 1957.

Policies included a shift from consumer goods to producer goods such as steel and iron – the backbone of industrialization- and the establishment of people's communes. Furnaces were very common in the rural areas of China at the time. This radical change had an obvious impact on the production of grain which, as we now know, resulted in large famines during that period. Large overreporting of grain production and impact of poor weather during the time also help explain the famines. (Bramall, 2008: 126).

By 1960, the Great Leap Forward started to slow down and in 1961, after Party inspectors toured around the country, it came to a halt. As Walder says when speaking of those inspectors – Deng Xiaoping or Zhou Enlai were part of them. "What they learned shocked them: not until the policies were clearly reversed, and they went to the countryside themselves, did they grasp the full measure of the brutality and suffering to which China's peasants were subjected by local officials during the Great Leap Forward." (Walder: 2015, 182). Following the acknowledgment of the mistakes, a set of policies were put forward to halt the path being followed:

The policies developed during 1960–2 involved the virtual cessation of rural iron and steel production (which returned labour to farming), the abolition of communal canteens (which had a broadly positive effect upon peasant producer incentives), the restoration of some private markets, a sharp reduction in procurement quotas and even the restoration of family farming in some parts of China (Idem, 135)

Between 1961 and 1963, the country briefly returned to the NEP inspired policies of the early years. This timid relaxation wasn't restricted to economic policies, as intellectual production was encouraged, even if it was criticising the Party's action and Mao's leadership. "The period also saw a brief cultural renaissance. Banned books were republished. Literary styles other than orthodox socialist realism— the unfailing celebration of proletarian heroes— were openly encouraged. The intrinsic value of art for art's sake— independent of class or political content— was more widely appreciated." (Walder: 2015, 186)

A short-lived period, as the Cultural Revolution that was proceeded by the Socialist Education Movement, approached fast. Also, in 1963, the two main socialist powers in the world broke relations in what is known as the Sino-Soviet Split. Ideological accusations from both parties, sparked by Khrushchev's denunciation of Joseph Stalin's policies, led to an event that would impact China's political and economic path of the next years. It is important to remind that the Soviet Union was not only the main trading ally of China, but also contributed with technical and material assistance since 1949.

2.4 CULTURAL REVOLUTION (1963-1968)

In Marxist thought, the superstructure (realm of politics, laws, ideas,) subordinates itself to the economic structure, as we have discussed earlier. Mao, however, and as Bramall explains, questioned this idea. On one of his most famous works – titled "On Contradiction"- the leader of the Popular Republic tries to establish a connection between cultural changes and economic progress. "The idea that super structural transformation is a decisive causal factor in bringing about social change is Mao's major theoretical contribution to the development of Marxist thought, as well as his principal contribution to Marxian practice." (Bramall:2008, 148)

These formulations advocating cultural revolution and the birth of a new outlook are not exclusive to Maoism as one can find the same idea of creating a new man in Che Guevara's thought.⁷ For the Chinese Communist Party, led by Mao, the country needed a profound cultural change as the old ways were hindering economic and social progress. One could argue that the gradualist policies adopted at an early stage of the revolution led to an explosive situation as remnants of the past still permeated the Chinese state. It is precisely against the bourgeoise *intelligentsia* that dominated middle schools and universities, but also against degenerative elements inside the Communist Party, that Mao spoke against and rallied the young Red Guards. (idem, 150).

The period inaugurated with the Cultural Revolution sought more than super structural change. Late Maoism, as Bramall puts it, had the objective of modernising the country by reducing the gap between urban and rural areas, by promoting the industrialization of the country side and the collectivization of agriculture. It wasn't just an idealist dash into the abyss, but a result of the material need to modernize the country through economic and cultural development. Perhaps the Cultural Revolution was deemed necessary by the shortcomings of the original 1949 revolution, or instead it was Mao's last attempt at creating a legacy and protecting the purity of socialism against the new bourgeoise born from the management bureaucracy of the Party and State. A problem Mao saw in Khrushchev's Soviet Union and was beginning to see in his own country.

Meisner (1999:315) argues that the Great Proletarian Cultural Revolution represented a total detachment from classic Marxist interpretation of history, as Mao believed that socialism and even communism could be built without China having to go through the capitalist stage of

⁷ In "Socialism and man in Cuba," Che Guevara stresses the importance of building new economic foundations, while not forgetting the need for cultural change as a way to build the new man.

development. For Mao, what mattered was the level of political and ideological consciousness of the masses and so by changing their way of thinking, the revolution would continue to thrive. As Mao himself said, practice is the criterion of truth. Let's look at the outcome of this period

The period of 1966-1968 was marked by high levels of conflict between opposing factions. Closed schools and universities and overall socio-economic instability. At first welcomed by the Party or at least tolerated, the Cultural Revolution in its most radical period gained its own dynamic and momentum. It reached a point that Mao, himself the biggest instigator of the movement, ordered the Army to repress the rebels who proclaimed that "it is forbidden to forbid."

For Andrew Walder, the Cultural Revolution wasn't just a period of ideological affirmation or spiritual rejuvenation. It was a purge and one made with the clear intent of rebuilding the State and the Party. It was directed against *the new bourgeoise and other revisionist elements* inside the bureaucratic apparatus:

But the Cultural Revolution was much more than a leadership purge. A purge removes individuals from office while leaving the structure of offices intact. The Cultural Revolution aimed at the destruction of the bureaucratic system that China copied from the Soviet Union. In its place would be a much simpler network of committees that merged civilian and military cadres with rebel representatives, working with office staffs that were only a fraction of the size of the former bureaucratic departments. (Walder:2015, 201)

2.5 LATE MAOISM (1968-1978)

Following this controversial period, in 1971 *Xiafang* was put into practice. Broadly speaking, it was a transfer of urban residents such as middle schoolers and college students or even technicians to the countryside. The aim was to develop the rural areas of China and at the same time, educate the urban residents by making them have contact with the countryside reality. According to Bramall (idem, 163) the ones sent to the rural areas were the defeated factions of the Red Guards and others who opposed Mao's policies.

Returning to Chris Bramall's book, *Chinese Economic Development*, the author considers that late Maoism, which is the period from 1963 until 1978, had a considerable impact in promoting illiteracy reduction and improving primary and middle-schools, especially in the poorer rural areas:

Late Maoist China did even better in terms of reducing educational inequality. The gap between average levels of attainment in urban and rural areas narrowed. The educational opportunities enjoyed by girls vastly increased. And the traditional link between the level of parental education and the educational opportunities enjoyed by their children was broken. (Bramall:2008, 210)

In a certain sense, this achievement corresponds to the super structural change advocated by Mao, as it capacitated the poor masses with a higher level of knowledge and education. Of course, one must not ignore the damages caused by the Cultural Revolution, intellectually speaking. According to Meisner (1999,362). "During the now condemned "cultural revolution decade" (1966-1976) there was a dramatic increase in primary and secondary enrolments in the countryside, with primary enrolments increasing from about 116.000.000 to 150.000.000(...) and secondary enrolments rising from 15.000.000 to 58.000.000."

Late Maoism also emphasised the need to mechanize agricultural production and foment rural industrialization. Through collective farms that would promote workforce mobilization and increase output, conditions for mechanization would be created and thus it would allow for that same workforce to be utilized in rural industrialization.

From an objective standpoint, Bramall concludes that this period is marked by the growing of agricultural production and innovations on China's countryside, such as the utilization of modern irrigation systems and fertilizers. Collective farms, the author argues, were not the cause of the problems in agricultural production. In fact, what held the levels of production and development back, were the policies that allowed the return of family farming. At the same time, Bramall reminds us of the constraints faced by the People's Republic during the 1960's and 1970's, mainly its international isolation and threats of armed conflict. As we shall see next, these constraints prompted the implementation of the Third Front. (Bramall: 2008, 255)

Late Maoism, as suggested by Bramall, had three major components. Education, as evidenced by the Cultural Revolution period, collectivization of the farms and rural industrialization. The last point corresponded, as we said, to the construction of the Third Front. What was the strategy of the Third Front and its justification? It had two goals. First one was to protect the defence sector industrialization by moving those industries to the western and mountains areas, where they would be safer in case war erupted and at the time that was a serious threat coming from both the USA and the Soviet Union. The second goal was to reduce the urban-rural inequality. By 1964, however, Mao's optimism had evaporated. As a result of China's break with the Soviet Union and the growing American military presence in Vietnam, China was strategically isolated, and the threat of war was very real. To compound the problem, Chinese industry was located predominantly in the coastal or frontline (qianxian) provinces and in Manchuria. It was therefore highly vulnerable to attack by US aircraft based in South Korea, Taiwan and Japan, and to a Soviet attack into Manchuria. (Idem, 265)

It is worth pointing out that an attempt at rural industrialization had already occurred. It was the Great Leap Forward, which managed to produce a disastrous situation as we now know. The problem of the Great Leap Forward, or the main one perhaps, was the lack of realism in its objectives. It was intended to be a big step for Chinese socialism, but the lack of material analysis on the conditions of the country's economic structure and social development prompted its failure.

The Third Front was essentially a defence programme, for the reasons already mentioned. It was a product of the historical conditions at the time and it had a long-lasting impact in terms of economy, but also environment. It was an ambitious plan that presented some interesting results but was still not able to solve another issue that was under industrialization. In the late 70's, if we were to compare employment by sector, we would find that China was lagging other countries in terms of the its secondary sector, as most of the jobs were those related to the primary sector. (Bramall, 274)

The question Chris Bramall asks is of the most importance and that is, did the late Maoist strategy of industrialization pave way for the future? At this point it would be wise to remember Mao Zedong's own words about the importance of practice and experimentation:

Marxists hold that man's social practice alone is the criterion of the truth of his knowledge of the external world (...). If a man wants to succeed in his work, that is, to achieve the anticipated results, he must bring his ideas into correspondence with the laws of the objective external world; if they do not correspond, he will fail in his practice. After he fails, he draws his lessons, corrects his ideas to make them correspond to the laws of the external world, and can thus turn failure into success. (Mao, 1937)

One could ask, what is the legacy of Mao? Is it destruction and death? Is it development and justice? Like anything in the world, the legacy is one of contradictions. From an objective point of view, and the data demonstrates it, China was transformed. It became or was in the verge of becoming at the time of Mao's death, a modern industrialized nation. As we shall see further, there wouldn't be the Chinese miracle of post-Mao era without the policies pursued from 1949 until 1978. Vulgar idealism – a common problem – proposes to understand China and its development starting from Deng Xiaoping's period. It seeks to portray Mao's period as nothing more than chaos and poverty, while ignoring undeniable progress.

This type of vulgarity forgets that things do not quite die or end, but instead they transform into something else. So how would the People's Republic advance in a quantitively and qualitatively way without the industrialization plans that started in the 1950's? How would China modernize itself without the educations reforms of the late 1950's and 1960's, that democratized knowledge and lifted millions of people from obscurantism?

The first steps taken during the Leap in developing rural industry were abortive, but even that episode taught the population much about the skills and techniques required of industrial workers. Learning then accelerated during the 1960s and 1970s as Third Front investment in China's rural fastness created new opportunities for the peasant population, and as the establishment of local small-scale industries by counties, communes and brigades created a diverse and dynamic industrial sector. (Bramall: 2008, 318)

As Meisner (1999:413-415) states, Mao's period is better understood as a period that combined capitalist modernization with socialism in the horizon. The 1949 Revolution finished what the Nationalist regime timidly started and that is why capitalism could flourish in the early stages of the revolution. This train of thought followed Marx's "recommendations" that for socialism to succeed, capitalism must first thrive and develop, thus creating the necessary material conditions for socialist revolution.

Ignoring this central idea to Marxist ideology, Mao launched two big political and economic movements that had the goal of accelerating the task of socialist building. They both failed, at least if we observe the dissonance between proclaimed goals and results achieved. Even so, these periods of turmoil had a much larger impact in China's society than is commonly assumed. The Great Leap Forward did not allow China to reach England's industrial level in fifteen years, but it did provide the Chinese tools that would be utilized in the future, mainly the Third Front programme and subsequent industrialization. And no, the Great Cultural Revolution did not manage to change the human spirit or build socialism through sheer power of the mind, but it did force much necessary reforms in the education and healthcare systems.

As we shall see in the next part of the chapter, modern China should be understood as a continuous project. A project that started in 1949, changed in 1978 and hopes to achieve a new

phase by 2050. The building of an ecological civilization is the next step to take, but more on that later.

2.6 DENG XIAOPING TO XI JINPING (1978-2018)

Although a comprehensive analysis on China's development post-Mao would be interesting, we cannot hope to do it in this work. We do, however, intend to present China as a story of continuities and not ruptures. For this section we will utilize the thought of Elias Jabour, explained in his work. We will highlight Deng Xiaoping's main policies and results, while also mentioning his successors work.

In Elias Jabour's words, modern China is a product of successive farmers revolts throughout history. It is not a coincidence that Mao Zedong relied heavily on the countryside before and after the revolution. The process of rectification, as Jabour calls the post-Mao reforms, should not be understood as a break with Mao's legacy. In fact, as we have already mentioned, Deng Xiaoping policies were built upon that same legacy. They also do not represent a surrendering to capitalism, much like Lenin's NEP was not. For Jabour, market mechanisms are not a synonym of capitalism and it also worthy pointing out that during the primary stage of communism- socialism- certain traces of capitalism still permeate society.

Jabour further elaborates on what is called "socialism with Chinese characteristics," by criticizing the a-historical analysis made by liberal or ultraliberals, or those in the left-wing of the political spectrum. While it is true that surplus value still persists, that a distinction between urban and rural areas and between manual and intellectual work or even that the market is utilized to allocate resources and production, all of this is balanced, argues Jabour, by the hegemony of the Communist Party and the public sector(through different institutions and control mechanisms) that continues to maintain a decisive hand in the destinies of the country and the project of national development. If socialism is the first phase of communism, then for the Chinese they are still in the first phase of socialism, a period in which market forces or capitalism still exists with all the contradictions inherent to that system.

Socialism isn't implemented by decree, but it is built through a long and arduous path in conditions that are never ideal, but instead present a great number of contradictions. Those contradictions form the material basis for a new paradigm. The problems that China faced at the time of Mao's death, such as low agriculture productivity, inefficient industry and dependency on foreign technology and financial help, prompted the process of opening up and reform, a process with its inherent problems such as the "pressure over natural resources, social inequality and damage to the environment." (Jabour, 2008:70).

Development models, in post-1949 China, have correspond to historical necessities. When industrialization was needed for security reasons, the country pursued that goal. That process led to an accumulation of productive forces, but these forces were blocked by a stale bureaucracy and backwards technology and so China opened to the world and modernized itself by learning from the advanced capitalist economies and absorbing huge sums of investment.

Modernization, however, has not been done in a sustainable way. Huge contrasts mark China nowadays and these contrasts threaten the national rejuvenation plan and the building of socialism. Perhaps the most dangerous threat is the depletion of natural resources and pollution and obviously social inequalities. A problem recognized by different generations of the Chinese leadership, but only tackled with more intensity starting in 2006, during Hu Jintao's presidency.

2.7 DENG XIAOPING'S ERA

We will try to summarize the key aspects of Deng's era by following Chris Bramall's book ("Chinese Economic Development) and complementing it with other references. The important things we want to highlight are the lines of continuity with the Mao period and the social impact of some policies.

The process of reform wasn't exactly abrupt, at least in the early years from 1978 to 1982. There were changes, mainly the relaxation of collectivization policies – with a gradual return to family farming-, the creation of special economic zones to attract foreign investment or the granting of bigger autonomy to State-owned enterprises in setting salaries or managing the profits. The main aim of this period was liberalization and not privatization. (Bramall: 2008,322)

Berry Naughton comments on the distinction between reform in the former Soviet countries and the process occurred in China. For the author, there were significant differences between both. The Chinese reforms were able to generate wealth, increase productivity and modernize the country and all that with manageable social tension. Former Soviet economies went through what is vulgarly known as shock-therapy, which translated into mass privatizations laying-off and a complete dismissal of the state the society and economy. The author considers that the gradual approach, with local and regional experimentation, is what characterizes and helps explain the success of *Dengist* reforms. (Naugthon, 2007: 86-88)

This early stage produced interesting results and so, the political climate was set to promote further reforms which did indeed take place until circa 1989-90. The policies were

centred on continuing the trend of de-collectivization – by 1983, family farming was more utilized than collective farms- and a liberalization of prices with the state easing regulations on wages and prices:

The centrepiece of the price reform strategy of the mid-1980s was the dual-track pricing system. There were two elements to this. First, enterprises were allowed to sell a significant (and rising) proportion of their output outside the plan. Second, the price at which extra-plan sales could take place was allowed to diverge from planning prices. (Bramall, 2008:350)

With the return of family-farming and a relaxation of state-imposed tariffs and obligations, farmers felt compelled to increase output and even pursue other interests, which also explains the growth of TVE's:

By 1984 grain output had surged to 407 million metric tons, more than one third higher than in 1978. There was enough grain for everybody in China. The decades in which China's industrialization had been repeatedly held back by agricultural weakness seemed suddenly to be over, and the centuries of a China fundamentally short of food were over as well. In fact, the increase in grain output was only half the story. Freed to allocate their own labour in the way they wanted, farmers increased grain output while actually reducing the number of days spent in the grain fields. (...) The number of workers in township and village enterprises(TVEs)—locally run factories—increased rapidly, and output from this sector surged as well. (Naughton: 2007:90)

China's opening up to the world, contrary to what might be perceived, began with Mao's government. The normalization of relations with the USA, in 1971, broke China's diplomatic and economic isolation, with obvious benefits for China as it managed to captivate foreign investment and technical transfer.

Perhaps the sector in which *Dengism* had more impact been the industrial sector. At the time of Mao's death, Chinese industry was inefficient and too focused on fulfilling the needs of itself, instead of the consumer. Privatization was never an option until the early-mid 90's:

To suggest privatization as a policy option in the late 1970s or early 1980s was political dynamite, because it challenged both the Maoist vision and the very raison d'être of the Party itself. There was thus more or less a consensus that all other options should be tried first before any serious consideration of privatization could be entertained. (Bramall,2008:404)

The solutions to these problems involved a continuation of rural industrialization and the liberalization of state regulations. During Deng's era, the TVE's (Town and Village Enterprises) gained a great deal of importance, especially in the industrial sector, being responsible for the rejuvenation of the sector. TVE's, in its essence, were state enterprises. As Bramall points out, it was the state the main culprit in China's industrialization. Besides the TVE's, the CCP also promoted a series of reforms such as; refocusing industrial production from heavy machinery to consumer goods(light industry); liberalization, with a less restrictive regime on private enterprise creation or the acceptance of foreign capitals; a greater autonomy for SOE managers, "that meant both allowing a substantial degree of profit retention and, as importantly, giving directors discretion over the use of such profits." (Bramall, 412). With its shortcomings, as we shall see next, the policies pursued during *Dengism* managed to break with the stagnant Soviet-style industry of the 1950's and 1960's. At the same time, this process wouldn't have a material basis to succeed without the period of rapid industrialization prompted by the Third Front programme.

Following a period of political unrest⁸, sparked by high levels of inequality, corruption and inflation and also a lagging state sector that burdened the rest of the economy, Deng embarked on the famous Southern Tour in 1992 that "revived the momentum of market-leaning reform, paving the way for the CCP's 1993 decision to adopt the long-term objective of building a "socialist market economy." (Brandt; Ma; Rawski, 2012) In practice this meant the reform of state owned enterprises, including the dismissal of employees, privatization of the said enterprises and the furthering of China's insertion into the global market.⁹

Of course, we should not measure the impact of Deng's era based solely on economic indicators. Socially speaking, the impact of reform policies was not that positive. As expected, the rush to wealth promoted by Deng Xiaoping, broke with much of the egalitarian ideology and practice of the Mao period. To be fair, however, Mao's blind utopianism also led to social disasters during the most radical periods (Great Leap and Cultural Revolution.)

For example, in the education sector there was a cut in investment that reflected poorly on the rural education programmes of the Mao era. Junior and middle school enrolments fell for most of the 1970's-1980's and only in the following decade did they recover. Bramall (446), explains that while there was a reduction in mortality rates – although more significant in males-

⁸ In 1989, a series of protests erupted in China, mainly in the capital, in what became known as the Tiananmen Square Incident or Massacre, depending on the political reading one chooses to indulge.

the Dengist period was rather lacklustre in this department as well, especially if compared to other countries. "This indictment is especially powerful because the slow rate of longevity improvement took place against a background of sharply rising GDP, which in principle ought to have made possible vastly improved levels of health care."

Dengism is also marked, as mentioned, by the rise of inequalities and corruption cases. The gap between rural and urban areas (a problem already existing during Maoism) widened, as also did poverty within the cities and villages. This inequality translated into different levels of access to consumption, healthcare and education. The breaking of the commune system, which provided some sort of security for the poorest or the liberalization of the economy were the main factors behind the growth of inequality.

Meisner speaks of the rise of individualism in post-reform China, giving the example – much like what happened in former Soviet economies – "In many areas, this privatization of formerly collective property was performed in a most inequitable fashion, providing those with political power or influence special opportunities for accumulation of wealth." (Meisner; 1996, 245). The author also mentions the deterioration of public infrastructures in the rural area and the overall deterioration of living conditions in the villages, especially for those who were already living in a precarious situation and that couldn't capitalize on the new conditions created my market reforms. A necessary sacrifice to increase productivity, so the Chinese leaders thought.

Again, and following the idea of Bramall, Deng Xiaoping 's era is marked by growth. Growth of the economy, growth of inequality and growth of pollution. A necessary step? An interesting debate to pursue. Indeed, at the time of Mao's death, the country needed change to recuperate from ill-advised experiences and the backwardness of its economy. *Dengism* may have opened the country to the market, but the State remained very much present. The State through different either directly or indirectly, maintained control of the productive forces. The market mechanisms introduced helped to rationalize and allocate resources in ways deemed more productive and profitable:

Furthermore, given the key role played by the state in promoting industrialization after 1978, it is not quite clear why the incentives faced by private sector agents were so important. Investment rates were very high in the 1980s and 1990s precisely because of the dominance of the state sector, not because of a large private sector motivated by profit-based inequalities. (Bramall,2008:463)

Given that, it would be pertinent to ask why did *Dengism* left China with such inequality and pollution? Was it possible to pursue another path? To answer these questions, we will follow Elias Jabour's train of thought regarding the Chinese process of development. First, it would be wise to recall that the Chinese leadership consider the country to be in the "first phase of socialism," and in these phase different stages of development interact with each other. "Travelling through China is like travelling in time, through different Ages, since the Middle-Ages until the contemporary Age." (Jabour:2010,143). Inside China, there exists primitive natural economy, small merchant production, private industry, capitalism and socialism.

Jabour's characterization of the Chinese state is equally important. If Mao implemented a revolutionary state – the main goal being industrialization and construction of defence capabilities- Deng Xiaoping corrected the path and introduced a Developmental State. To eliminate poverty, a country must develop its productive forces. It must create wealth (in all aspects) or it runs the risk of redistributing misery. Certainly, the Chinese learned this lesson very well during the most radical phase of Mao's period.

The Developmental State managed to lift millions out of poverty, project China internationally and transform China into a modern economy. At the same time - contradiction is always part of the process – it widened inequality, created new challenges, such as the migrant work force or the pressure over natural resources. While Jabour's opinion, based on a rigorous analysis of Chinese reality and history, is commendable and very helpful, it also tends to be quite deterministic in a sense that the author follows a very linear reasoning to explain certain problems of China's development model post-Mao. While it is true that no country can create wealth without economic growth, lots of questions arise when we look at certain practices inside the People's Republic. Contradiction is the engine of progress, and these contradictions are the prompt, according to Jabour, to new and superior ways of social organization.

On the differences between the Revolutionary State of Mao and Xiaoping's Developmental State, Maurice Meisner (1996), has the opinion that while both periods have big differences between them, there would be no 1979 without 1949. These differences also express the tension that always existed between both man and their respective factions. Mao's idea of cultural transformation emphasized the power of revolutionary will and purity to achieve social transformation. Deng and his associates, on the other hand, and as history has demonstrated, believed that for socialism to triumph the country would have to go through a long period of development and in that period, capitalism and the contradictions inherent to that system would still exist.

Environmentally speaking, both periods, were equally damaging to the ecosystems. Deng's period was perhaps even more cruel, as the country went through a period of reformed marked by liberalization and introduction of market forces with the avail of Deng himself who encouraged the Chinese to promote growth, but we will elaborate on China's environmental situation in the next and final chapter. (Sanders, 1999)

2.8 AFTER DENG

Following Xiaoping's death in 1997, his "successor,"¹⁰ Jiang Zemin's period was a continuation of previous policies. In fact, the rhythm of marketization accelerated so much that some authors, (Bramall, 2008:470) even speak of the end of market socialism and the full embrace of capitalism in China. Perhaps exaggeration, but it holds a bit of truth. In fact, as Jabour and others recognize, capitalism is the mode of production currently in the Asian country. It can be argued that the State maintains control and hegemony over the economy key point of Jabour's thesis) – it certainly maintains political and social control – but at the moment it is almost impossible to portray China as a socialist country. In fact, political leaders in the country frequently speak of the process of building socialism, which is a fairer assumption to have when looking at China.

Jiang Zemin's period of governance which formally lasted from 1993 to 2003 – in practice Deng Xiaoping continued to exert influence until passing away – as said, can be characterized by the deepening of market oriented reforms with further restructuring of the State sector, liberalization of the economy, easing of internal labor migration and a big commitment of opening the economy to the world, with China's accession to the World Trade Organization in 2001 being the culmination of the policies initiated in 1978.

In the eyes of Wu Li and Sui Fumin (2010: 38-40), this period is marked by the establishment of a buyer's market which helped ending shortages in the economy, by a series of policies centered around the maintenance of economic and social stability, though increased supervision and the narrowing of the gap between the west and east, which had grown considerably in previous decades.

¹⁰ At the time of Deng Xiaoping's death, Jiang Zemin was already the President of the People's Republic and General Secretary of the CP. In fact, Deng Xiaoping never held the position of President or General Secretary. Despite this, Deng was considered the *de-facto* leader of China during a long period of time.

Bramall (2008:475-476), on the other hand and given his sympathy to Maoist economic planning, points out the numerous social problems that continued to exist in China during this period. The author no longer speaks of China as having a market socialist system, but a hybrid of capitalism and authoritarianism. In this post-reform China, corruption, inequality and rural poverty continue to plague the country as the authorities no longer have the goal of building a fairer society. It's also no surprise for him (idem, 490), that in the late 90's, movements tied to the New Left¹¹ in China started to gain some notoriety.

2.9 CONCLUDING REMARKS

With this chapter, we hope to have provided a historical contextualization centered on economic and social development. With a developmental perspective, grounded on Elias Jabour's thesis and other authors contributions, we have no doubts that to understand China, one must study the Maoist period and relate it to the Dengist era that followed. Instead of deep ruptures, in 1978 what happened was a correction of the path. Recognizing the differences between each period, does not deny the dialectical relationship between Mao's industrialization and the astronomic growth that followed during reform and opening.

The process of reform with its own contradictions and shortcomings has managed to take millions out of absolute poverty and modernize China, but this model – reality has shown it – seems to no longer serve the goals of building a harmonious socialist society. In the next chapter, we will dive into the theoretical background of ecological civilization and its role in China.

3. TOWARDS ECOLOGICAL CIVILIZATION: PAST, PRESENT AND FUTURE

Historical contextualization concluded, it's time to speak of the present and the future and the possibilities of sustainability in a country marked by deep contradictions and inserted in a globe that is both a friend and enemy.

Going back to our review of literature, Cao mentions how government policies must not prioritize environmental protection over social development and poverty relief. The great challenge for the People's Republic will be to maintain the course of growth while promoting

¹¹ New Left in China is inspired by Maoist period's policies and is frequently critical of China's embrace of capitalism and market reforms. The growth of inequality has helped the resurgence, in the last years of support to Mao.

sustainability. But before going deeper into that necessary synthesis, we must first establish the background for sustainable development discourse and practice in China. In this chapter, we will seek the recent advancements of sustainability in the country, with a focus on ecological civilization while presenting the different understandings of this concept.

3.1 A SMALL SIDE-NOTE: POLLUTION LEVELS, ENERGY STRUCTURE, CONTRADICTIONS AND CHALLENGES

Following decades of *blind* economic growth, at the turn of the millennium the country faced increasing problems related to the development model pursued. These problems, different in terms of scale, ranged from corruption, social inequality and environmental destruction. These were not new but were aggravated with the advent of market reforms. Left unattended, they would pose a serious threat to social stability and overall long-term goals of the Communist Party.

It would be wrong to affirm that China had no environmental policy before the early 2000's. We decided to focus on the period that corresponds to the emergence of several concepts tied to sustainable development, and while it is possible to identify clear environmental policies during Deng and Mao's period, they mostly represent weak-willed intentions of correcting big mistakes.

Decades of economic growth, marked industrialization, urbanization and the rise of consumptions levels left China, at the turn of the millennium with a worrying environmental situation. A situation that many countries in the West – the frontrunners of capitalism such as England or the United States – also experienced. The path of development implemented in China has left the country with grave deficiencies in its air, water and land systems. The famous images of smog-filled cities or polluted rivers became more and more frequent during the 2000's. Elizabeth C.Economy (2007) wrote at the time that the country's environmental problems can hinder long-term plans of the Communist Party as pollution leaves the country without water and arable land. Liu and Diamond (2005) further elaborate on these problems, while also mentioning China as the world's factory and its impact on the environment or even the inefficient energy structure of the country, evidenced by its reliance on coal and outdated technologies. The impacts of pollution, the authors say, can be felt in all aspects of life, be it human or animal with harm being done to biodiversity and human health.

Chow (2007) mentions the effect of CO2 emissions that have an origin in rising levels of industrialization and consumption – the author mentions the growth of automobiles as a big

contributor - on climate change. The problem, for Chow, lies in still very much present mindset of achieving short-term profits and advantages that disregards the future and the problems that come with it. Inefficacy is again mentioned by this author, a problem that affects the energy structure, the economy and the public administration sphere, as authorities have trouble in enforcing laws that have the goal of fighting pollution.

Bo-Jie Fu *et al* (2007), explain the problems of China's rapid economic growth and its consequences on the environment by demonstrating, with data, the threats to the ecosystems but also to human life. For example, China is one of the countries with most limited water resources and a unequal distribution throughout the territory. A problem that is aggravated by pollution. "The water shortage will be exacerbated by serious pollution. More than 60% of China's large lakes are eutrophic (3), and the water quality has declined in >50% of its rivers." In terms of air quality, the situation isn't any better. "Of the 522 cities monitored in 2005, 11% were considered heavily polluted and only 56% had air quality that met the State Environmental Protection Administration of China (SEPA) standard."

We do not want to extend ourselves that much on the technicalities of pollution, as that is not the area of research we intend to pursue, but a small side-note such as this one is always important to set up the following words. Indeed, China at the turn of the millennium faced an unprecedent level of pollution, that left untouched would certainly destroy what has been built and the prospects of a better future.

Also, important to mention, as it is directly related to China's high pollution levels, is the country's energy structure¹². A rapid economic growth and social development, such as the one that is taking place in China, demands big sums of energy. A growing demand that is not foreseeable to stop or stabilize soon.

According to Dong *et al* (2016), coal has been since 1949, the primary source of energy in China. It's a cheap and widely available resource, in comparison with other sources of energy. Although still holding a primary position, it has been gradually losing usage thanks to government policies and the economic viability of other energy sources. With a crescent importance in China's energy structure, oil comes next in terms of utilization. The development of automobile transportation is the explaining factor for the rise in oil consumption. A sign of development, but also a rising concern for China as the country has no capability to produce

¹² For a quick data insight into China's energy production and consumption, we recommend the following handbook: <u>https://china.lbl.gov/sites/default/files/misc/ced-9-2017-final.pdf</u> (accessed 02.08.2018)

the required levels to satisfy consumption, which has made China import oil since 1994-1995 (Broadstock, 2014)

Next on the list, in terms of utilization, comes gas and nuclear energy. Both are seen, by the Chinese government, as alternatives to coal. Rapidly growing is the sector of renewable energies, which accounted, in 2015, to about 25% of total electricity production in China.¹³

Equally important mentioning is the question of China's energy security. The growth of the economy and social development inherent to it has catapulted China's energy consumption, with its national production being unable to satisfy the needs of the economy and its citizens. This is a problem, especially if we consider that Chinese leadership has the goal of meeting the country's energy demands with 90% of the energy being produced internally (Luo *et al*, 2014). Its position as a net importer holds up well when we speak of oil and gas, although China also imports coal (Odgard; Delman, 2011). Being dependent on foreign forces – in a sector so crucial such as energy – is not a position China wants to be. We must consider that a big portion of the country's crude oil is imported from regions that tend to have political unrest¹⁴. The influence and military presence of the United States of America in the region of the Strait of Malacca is also a factor that cannot be ignored.

Finishing this small side note, we would like to reflect on some of the contradictions and/or challenges that are an integral part of China's development process or of any other country, if we are to be honest.

There is obviously the question- as we mentioned here – of the country's energy structure and by consequence energy security. The main contradiction being the country's growing energy needs, the lack of resources (especially oil) and the dependence of external factors to satisfy those needs.

If we observe China's trajectory since 1979, there is an obvious growth of international insertion. The process of *opening up* was conceived with that in mind. Opening to foreign investment, absorbing foreign knowledge and pursue national development. In the last decades this has transformed China into a global player, but it has also made the country rely more on the international community.

Another challenge, identified by Jabour (2010:359), lies in the gap between urban and rural areas. The country, presently, still has an enormous amount of rural population. A

¹³ For a more detailed view on the data, consult figure 2.4.1 in the Annexes section

¹⁴ Saudi Arabia, Iraq, Oman, Iran, Kuwait, UAE combined represent about 40% of China's oil imports. For more data, follow the link: <u>http://www.worldstopexports.com/crude-oil-imports-by-country/</u> (accessed 05.08.2018)

population that historically has been left behind by China's development in the past decades. It is a potentially explosive situation as Jabour states that throughout China's millenary history, the ruling elites have always been pressured or even toppled by the farmers.

Directly related to rural-urban inequality, are the problems caused by the hukou system and.¹⁵ Peter Ho (2010), asserts that the system created deep inequalities and brewed social tensions while it also permitted the Chinese government to maintain political and social control and avoided the proliferation of slums around the big cities. Nowadays, the Chinese authorities are looking for ways to tackle this problem by promoting urbanization and the granting of urban hukou to the millions of workers who have lived in the cities and helped their development, but without enjoying in entirety the benefits of that work. It will certainly a big contention point in the next decades as more resources will be needed to help accommodate for more cities and urban population. At the same time, the Chinese leadership can't ignore the problem since it might become explosive as migrant workers demand more rights and living conditions.

As recognized by the latest report to delivered by Xi Jinping, when addressing the question of the cultural needs of the Chinese people, to the 19th Congress in October 2017. "Not only have their material and cultural needs grown; their demands for democracy, rule of law, fairness and justice, security, and a better environment are increasing." Minxin Pei (2010) provides a detailed analysis on dissident movements in post-Mao China by specifying time periods and tactics utilized by the opposition. The contradiction seems to be between the growing demands of a more democratic system and the firm grasp the Communist Party has in Chinese society, a grasp that has vowed to never allow "western" or "liberal" democracy to permeate. The growth of protests, explains the author, can be understood because of market reforms and the international insertion of China. Indeed, if the leadership in China has no intent of adopting western style democracy, one must wonder how the political system will evolve to maintain political stability and national unity while conceding more rights and freedoms to its population.

¹⁵ The Hukou System, in summary, was created to regulate migration inside the country. It was first implemented in 1951 in urban areas and later in 1955 it was extended to rural parts of China. From the start, urban areas were given priority over rural ones. For example, the state provided public services to urban citizens but not to the rural people. Since it was a migration control policy, the State kept records of all its citizens and thus it was able to control the flow of populations in the country through heavy restrictions. Nowadays, the hukou system has suffered various reforms but its effects are still felt.

We briefly mentioned some of the main contention points for China's development in the present and foreseeable future. Other questions, such as corruption, ethnic tensions or international disputes (Diayou Islands for example) are also worth mentioning as they all represent – some more- a challenge to China's national development. We won't be able to critically explore these questions in this work, but it could be interesting to research the threats (some of them identified in this section) to China's development and its goal of achieving a modern socialist society by 2050.

3.2 SCIENTIFIC OUTLOOK ON DEVELOPMENT AND HARMONIOUS SOCIETY

China's environmental protecting laws can be traced to the early 1970's, following the country's attendance to the United Nations Conference on Human Environment, held in Stockholm in the year of 1972. Through the 1970's to late 1990's, there was a great deal of activity in this sector of Chinese politics.¹⁶ In the end, environmental protection, during this period, was always subservient to the goal of economic growth. This began to change in the early 2000's with Hu Jintao's succession to Jiang Zemin.

Faced with social inequality and ecological disasters, both with the potential of causing disruptive tensions, the new leadership brought to the table a new path of development. Hu Jintao labeled it the Scientific Outlook on Development. Let's take a brief look at this concept, one that we might consider as China's first take seeking a more sustainable development model.

The concept was first mentioned in 2003 by Hu Jintao in an inspection trip to Jiangxi Province. This was in September and a month later, during the Third Plenary Session of the 16th Central Committee the ideas behind the concept were formally accepted in the Party. Hu Jintao's leadership is sometimes characterized as people friendly. Following decades of extravagant growth, with its dire consequences, the new leadership sought to establish a new model of development, one that would aim to become more harmonious. (Fawkins, 2004).

So, what can be said of this concept? Officially, the Chinese state, by the hand of the Ministry of Ecology and Environment, published in 2005 a document outlining the guiding principles. From its reading, we think the follow quote better summarizes the intents:

¹⁶ Jin Wang's article " Evolution of Environmental Thought and Enforcement of Environmental Protection Legislation in China: The Status Quo," is a good starter for those seeking a better comprehension of this topic.

Aiming at balanced development, mutual benefits and win-win situation. We should properly deal with the relationship between environmental protection and economic growth and social progress, preserve the environment in the course of development and promote development through environmental protection, and insist on economized, safe and clean development so as to achieve the sustained and scientific development. (State Council, 2005)

The concept seeks to bridge economic growth with social development and environmental progress. In a simple sentence, one utilized by the Chinese leadership, the goal of Scientific Outlook on Development is to put people first.

Ma Kai(2006), former chairman of the National Development and Reform Commission, on the occasion of the approval of the 11th Five Year Plan further explained what SOD meant for the future of China : Work towards a shift from an export-based economy to an economy based on domestic demand and investment; Promote industrial restructuring, meaning a focus on qualitative growth instead of quantitative; Promote a development model that takes into account natural resources and the overall environment; Promote the continuous investment on science and technology as a means to achieve independence and create innovation. Ma Kai also mentions the need to create harmony throughout the country, by developing all aspects of society in a just way. He refers the divide between urban-rural areas, and the Western and Eastern regions.

Hu Jintao, is his report to the 17th Congress of the CPC¹⁷, further adds to "his" theory. Clearly stating that China is still in the primary phase of socialism, Hu Jintao made a resume of the achievements conquered since the 16th Congress while also pointing out the shortcomings that persist because of that same growth model. The everlasting contradictions as the engine of progress.

The Scientific Outlook on Development, as Hu Jintao, has at its core development. Following previous leadership's political thought and *praxis*, the creation of material wealth, the progress of the productive forces is a central task. Without it there is no possibility of tackling the problems China is facing. This development should move towards higher efficiency, make use of scientific and technological advances, put people first and be sustainable. Hu Jintao's vision proposes a harmonious society:

¹⁷ During the Congress, that happened from 15th to 21st of October 2007, the concept was added to the Constitution and formally acknowledged as a line of political thought alongside the contributions of previous leaders.

Social harmony is an essential attribute of socialism with Chinese characteristics. Scientific development and social harmony are integral to each other and neither is possible without the other. Building a harmonious socialist society is a historical mission throughout the cause of socialism with Chinese characteristics, as well as a historical process and the social outcome of correctly handling various social problems on the basis of development. It is through development that we will increase the material wealth of society and constantly improve people's lives, and it is again through development that we will guarantee social equity and justice and constantly promote social harmony. (Jintao, 2007)

Harmonious Society or Harmonious Socialist Society is a concept closely tied to the one of SDO. Curiously, the concept of social harmony can be traced back to the teachings of Confucius. Confucianism, that for the most part of 20th century was labeled a reactionary ideology and even blamed for the country's problems, seems to have been making a return to mainstream political thought and social practice. In the opinion of Jana Roskler (2013), this resurgence of Confucianism, encouraged by Chinese leadership, seeks to respond to vacuum of ideology left by decades of the growth-fever which encouraged individualist attitudes and environmental destruction. The developmental model that was born in 1979 has perhaps reached its historical limits and thus, the need for a new model that brings harmony has been being promoted since Hu Jintao's arrival to leadership. The author also points out that Chinese state may be utilizing Confucianism and its defense of social harmony through obedience to the superiors and the rule of law to maintain its hegemony and power¹⁸.

Harmonious Society, as envisioned by Hu Jintao and the CPC, implies the following values or components: Democratic and constitutional rule of law society; A society of trust and social justice; Society of vitality; Stable and orderly society; Green society in harmony with nature; Multi-polar (honest and caring society.)

Devin Joshi (2012) discusses the meaning of the concept and its implications for the future of China. In the values pointed above, Joshi sees a more ethical and moral approach defended by Hu Jintao that puts great emphasis on order and rule of law. On the other hand, Premier Wen Jiabao seemed to have a conception of Harmonious Society more focused on reducing the gaps and inequalities in society while also supporting the increase of democratic participation. The Scientific Outlook is a means to an end. The end is to build a Socialist

¹⁸ Roskler denotes how the People's Republic of China official interpretation of Confucianism follows the traditional legalist conception made by Xun Kuang, who had a pessimist outlook on human nature and thus believed that harmony had to be constructed through strict social norms. The author also mentions Menciu's thought in opposition to this legalist view.

Harmonious Society and achieve the goal of having a moderately well-off society by 2020. (Chan, 2010)

The Hu Jintao years represented a period of transition from the growth-centric development model to a more sustainable model. It wasn't a complete rupture with the past, but it did introduce a different way of conceiving development. A development more focused on quality over quantity. Harmony over distress. Collective over individualism. It also created the political conditions for the next step in China's development history.

3.3 ECOLOGICAL CIVILIZATION: THE NEXT STEP

In this final section, we aim to expand on China's sustainability path. To achieve what we propose, an exploration of the theory behind the concept of Ecological Civilization is needed, but also the recent contributions of Xi Jinping to Socialism with Chinese Characteristics and the proclaimed goal of building a "Beautiful China." We will mostly focus on what are considered the official theories, as those are what guide the practice in the country, but we find it important to mention other interpretations of the same concept, as we already did in our literature review and introductory parts of the work. From theory, we will arrive to practice and seek what has been done in the past ten years regarding environmental policy and sustainable development. Given the nature of this work we will not dwell much on data or technicalities, instead the objective is to paint a panorama of the policies and their results. What has been done and what is planned.

A good starting point to grasp the concept of Ecological Civilization and its official interpretation is Jiahua Pan's "China's Environmental Governing and Ecological Civilization." We intend to base this chapter on this book and complement it with other authors and documents.

3.4 THEORY OF ECOLGICAL CIVILIZATION: QUESTIONING MODERNITY

What is an ecological civilization? The first component of such a civilization is harmony between human and nature. In that aspect it borrows elements from Confucianism and traditional Chinese values. But the pursuit of harmony, a task that has been pursued by the CPC since the new millennium, is not exclusively tied to the relationship between humans and natural life. In this case, the new civilizational paradigm also points towards harmony in social relations: In broad sense, ecological civilization not only includes the value of human respecting nature and coexisting and co-prospering with nature but also covers the production patterns, economic foundation, and governance systems based on the shared value. It is a social civilization form covering all material and spiritual achievements of the society of "harmony advancement between human and nature, highly advanced productivity, all-around human development, and sustained social prosperity. (Pan, 2016: 37)

Harmony between humans can also be associated with Confucianism but depending on the schools of thought it can be interpreted in opposing ways, as we have mentioned before. Harmony through the passive acceptance of unjust social conditions and authoritarian state power or harmonization by building material conditions that eliminate discrimination and unfair social relations and empower those forgotten by machine of progress?

Ecological civilization, for Jiahua Pan, marks a new era on the course of human development and history. The author throughout the book mentions the three stages of human civilization. There was agricultural civilization, marked by low productivity. It was succeeded by the industrial civilization, that accelerated the rhythm of production and unleashed a series of scientific and technological innovations. Now, humanity, is transitioning towards a new type of civilization. A more ecological one, that will be characterized by high productivity, scientific development and harmony in all aspects of society.

On a highly dialectical discourse, Pan (2016) explains how elements of the old societies still permeate the new ones being built. For example, the technologies and methods of fabrication born with the industrial civilization can and will be utilized in the process of transitioning towards ecological civilization. The old never quite dies, instead it becomes part of something new. In other words, the transition period from the industrial age to the ecological or post-industrial will be long as it won't happen at the same time around the globe. In fact, even inside China, this transition is happening and will continue to happen in a uneven manner. The East of the country, from a material point of view, is much more prepared to advance into this type of society marked by scientific planning, abundance of wealth and resources and access to education.

Another key aspect of Eco-civ, as explained by Jiahua Pan, is the refocus on qualitative growth in detriment of quantitative development. We considered this a breakthrough point in terms of theoretical discussion, as more radical interpretations of the concept often pick up this debate. To discuss this issue, we must not forget what we have already presented in the previous

chapters, such as China's developmental historic model, its energy structure and environmental problems.

A point of contention for a very long time between academics, politicians and social actors, the word "growth" usually has positive connotations. It is undeniable that economic growth, expressed in a quantitative manner, has had positive impacts on humanity's development, but there has been contestation to this notion. Jiahua Pan himself, perhaps not in a radical way, also questions this obsession with GDP and economic growth. In the first chapters of his book, Pan expresses sympathy the concept of steady-state economy; zero growth economy; low-carbon economy or circular economy to name a few. They are all related ideas and tend to express the same concern with the damage done to the environment but also to humanity. China's current president, Xi Jinping, has also utilized these terms:

China will respect and protect nature and accommodate itself to nature's needs. It will remain committed to the basic state policy of conserving resources and protecting the environment. It will promote green, circular and low-carbon development, and promote ecological progress in every aspect of its effort to achieve economic, political, cultural and social progress. (Jinping, 2013)

Briefly mentioned in the introductory chapters of this work, Walter Benjamin's work is vast, profound – sadly we won't dwell much on his legacy – and given the topic of this work, very relevant. Benjamin's insurgency against *productivism* and a certain historical materialism associated with Stalin and others who followed his thought, like Mao Zedong himself – although as we have seen, Maoism had its own particularities- is what we intend to bring to this chapter.

Benjamin is usually associated with Romanticism, not the conservative type that desired a return to feudalism and the *enchantment* of order and tradition, but the revolutionary interpretation. Löwy, an author that published diverse works on Romanticism, explains this world view. "

We can define romanticist's world view as cultural critique of modern civilization, in the name of values of the past. A critique or a protest regarding certain degrading e insupportable aspects, such as; quantification e mechanization of life; dissolution of communal ties or the disenchantment of the world. This nostalgic view of the past does not mean it is reactionary (...) For revolutionary Romanticism, the objective is not a return to the past, but a shortcut through it, in direction of an utopian future. (Löwy,2005:15)

Up until now we have followed a classical historical materialist approach, but we want to introduce an alternative view on the possibilities of development, one that breaks away from the chaos of capitalist modernity.

We have presented China's development since 1949 as a succession of steps that were inevitable and that for the most part represented progress. China was an extremely backwards country with a broken economy and serious problems in its social systems. And so, the Chinese communists launched a vigorous campaign to modernize the country – in a sense it meant to complete what the May 4th Movement initiated back in 1919- a campaign that is still ongoing as this work is written. What has it meant for the Chinese to modernize? For the most part it merely meant to catch up to Western standards of material development and wealth, either through radical periods such as the Great Leap Forward or the Cultural Revolution or through a state-planned market economy that opened the country to the West.

The question of following the Western model of development "pollute first, clean up later," is essentially a question of following or not the *productivist* logic that dominated modernity for the past centuries. Here we want to deepen the theoretical debate.

The Ideology of Progress, as Löwy puts it, includes both capitalism and what the author considers the experiences of "real socialism." What do they have in common? He argues that both systems were unable to truly question the alienating nature of work and its destructive power over humanity and nature. The criticism to capitalism, such as the quantification of life, the brutalization of social relations and the loss of enchantment in everyday life is extended to the type of socialism that in the past wasn't truly able to establish a new paradigm for humanity and for its relationship with nature. For the most part, this applies to both China under Mao Zedong and China post-1979. Only recently has this model begun to be questioned.

The *productivist* logic tends to believe that a quantitative growth of the productive forces and a constant development of technology and science will, without doubt, lead humanity to a better future. Constant growth at the expense of the poor and nature. As we now know, this paradigm has its limits and they have been shown a long time ago. Its why Löwy (2011:52) speaks of a qualitative growth in opposition to the obsession with numbers.

Also criticized by Michael Löwy, in his book about Eco socialism (2011), is the destructive power of capitalism and what he calls "vulgar interpretations" of socialism – in reference to the Soviet Union mostly - a destruction that threatens both humanity and all life on Earth.

Following Benjamin's political logic, we can say that progress is destruction. The history of modernity has been one of destruction. In his final work, published after a tragic

death¹⁹, he questions the validity of having blind faith in progress. History, for him, has been written by the victors and those that lost were swept under the rug. Revolution was not the continuation of this linearity. For Benjamin, the revolution had to make a full stop and break apart all that had been built. It had to recover the history of those who were defeated and forgotten. It must inspire itself in the past to have hope of a better future, just as José Carlos Mariátegui pointed out in his "Seven Interpretative Essays on Peruvian Reality."²⁰

Progress is destruction and humanity is not headed to paradise. Distancing himself from the positivism of mainstream Marxism (at his time), the author observed how scientific, technological development and economic growth meant nothing if there was no qualitative change in society. The contradiction seems obvious. Capitalism thrives on growth, it cannot exist without constant growth and thus it demands more and more of the workforce and of nature. Only "thankful" to unequal relations between the North and the South of the globe visible in the different economic development - do we still have the possibility of saving the planet for future generations. Nature is not to be conquered, nor can it be. Instead, the workers, the subaltern, the "forgotten", collectively and in a democratic way must lay the foundations of a planned economy that seeks to fulfill the basic needs of the people, of promoting the "being" and the free development of all. Naturally, the current path of capitalist development based on consumption and waste, on plunder and injustice, on wars and racism must be stopped.

These are important reflections to keep in mind as they directly touch upon various interpretations of Ecological Civilization. We want to start out by exploring what are the official considerations of this concept.

Much like sustainable development, ecological civilization is an open concept. Like all theories, it can be interpreted and appropriated by different groups with distinct interests. The interests of the Chinese State, led by the Communist Party, continue to be the pursuit of development, national rejuvenation and harmonious society building. In this equation we also need to include the question of national security (energy security, territorial disputes, economic disputes), urbanization and its pressure on the environment.

¹⁹ Walter Benjamin fled from Nazi Germany but was intercepted by the Fascist police of Franco in the border with France. In the end, Benjamin took his own life. Thesis on Concept of History – its content – is profoundly marked by the final months he lived.

²⁰ The Peruvian author, one of the founders of socialism in that country, defended a form of socialism that combined indigenous practices with modern advancements. He argued that the Inca civilization had a form of primitive communism.

We should look to Xi Jinping's report to the 19th Congress of the CPC to clarify Ecological Civilization understanding. The current General Secretary pledged to build a "Beautiful China," as part of the Two Centenaries. The first one, in 2021, commemorates the hundred years of the foundation of the CPC and by then, Xi Jinping hopes that China will be a moderately prosperous society. The second Centenary, in 2049-2050, will celebrate the hundred years of the People's Republic and the goal to achieve by then is a modern socialist society. Both goals point to a more just and sustainable development with emphasis on modernization, higher economic efficiency and technological development. The rule of law, higher democratization and socialist culture are also part of these goals as is the pursuit of a harmonious relationship between humanity and nature.

Through the reading of Xi Jinping's report (2017), we can grasp the commitment to continue economic growth and social development. There is a strong emphasis on reducing asymmetries as only through that reduction will it be possible to achieve the goal of a moderately prosperous society. Chapter IX, titled "Speeding up Reform of the System for Developing an Ecological Civilization, and Building a Beautiful China," is the most relevant to the overall theme of this work. In it, we can understand that the People's Republic is seeking to move away from Westernized modernization:

The modernization that we pursue is one characterized by harmonious coexistence between man and nature. In addition to creating more material and cultural wealth to meet people's ever-increasing needs for a better life, we need also to provide more quality ecological goods to meet people's evergrowing demands for a beautiful environment (Jinping, 2017)

Ecological Civilization, officially speaking, is China's leadership attempt to build a development model that combines economic growth and environmental protection. Economic growth and social development is an undeniable necessity for the current primary stage of socialism, as there are still regions that are lagging the more advanced ones. Of course, this is also a problem of the development model followed post 1979 (and inherited from the Mao era), that prioritized certain regions of the country and economic sectors. The post 1979 period has the aggravate of abandoning certain egalitarian practices, in favor of high-speed economic growth.

Chinese leadership has understood that from a social and ecological point of view, it would be unsustainable to continue developing following the patterns of previous decades. It is possible to continue modernization through sustainability, in fact it can be argued that only by seeking a more sustainable development, will China be able to achieve its goals of national rejuvenation and international projection. The concept of Eco-Civ, and most importantly its practice, may become a powerful tool for the growth of China's soft power appeal, given the relevance of environmental issues in the globe.

Ecological Civilization is the next logical step in China's national development and builds upon the previous paradigms. It doesn't seek to establish zero-growth, but the current leadership has accepted a "new normal" that points to a slowing down of economic growth. The focus on GDP will start to dwindle as Green GDP, low-carbon economy and circular economy enter the spotlight. Environmental protection and pollution prevention will walk side by side with the rule of law -another key aspect of Xi Jinping's paradigm – as China seeks to establish a modern country where everyone is submitted to the law and acts according to it.

More than just a set of environmental policies, Eco-Civ construction is a transformative movement that seeks to create a harmonious society through elimination of poverty, fomenting democracy, scientific and technological development and progressive reduction of inequalities. Of course, and this should be kept in mind, the framework to accomplish these goals won't change in the foreseeable future. A planned market economy- the State remains a decisive factor in the economy-, with capitalist relations of production is still China's reality. As is its condition of a developing country that faces deep internal and external threats as we have discussed and amply recognized by the successive leadership of China. Perhaps, these same threats are also a driving force in the People's Republic quest for sustainability. Perhaps, sustainability should also be understood as a quest for independence and national security. It is a concept of looking inwards, as the economy transitions from export-based to consumer based, but at the same time it is also a concept with global reach.

Official discourse on this concept is essentially focused on promoting harmony in all aspects of society. Jiahua Pan's book – here referenced – presents Eco-Civ as a transformative policy with deep impact on society. It isn't merely a set of environmental policies and it could never be, as humans depend on nature for everything. In its widest reach, the theory of Ecological Civilization is a guide to every single member of society, as it openly questions the relationship between humans and nature. In Chinese literature that we have consulted, there is always a mention to the behavior of the individual and the habits of consumption, but on par with this individual accountability, we are also able to find a more collective approach to the topic, as enterprises and the macroeconomic policies are questioned.

Ma Kai (2013), in an article published on the CPC's official theory magazine, stresses the importance of Eco-Civ for the future of China. Another article, published in the same magazine, by Jiang Chuyun (2013) follows the same type of discourse. China must adopt a new development model that is able to create material wealth without compromising future generations and the environment. It must not repeat the mistakes of traditional industrial civilization – the blaming of Western countries is also a frequent theme – if it aims to have a better future:

It is essential that we correct the way we treat nature and assume our rightful position in nature. As the wisest of all creatures, we should give full play to our intelligence and capacity for thought by shouldering the responsibility of caring for, protecting, guiding, and strengthening nature, and ensuring that all of nature's creatures are able to live in harmony and develop in a balanced, orderly, and continuous fashion. (Chuyun, 2013)

Summing up the PRC's vision on Eco-Civ, we will present the key aspects based on a document issued by the Central Committee and State Council²¹(2015). The guidelines to build an Ecological Civilization are: Follow the theoretical guidance of the successive Chinese leaderships; Put people first and act according to the rule of law; Elevate Eco-Civ to a strategic position and integrate into aspects of economic, social, cultural and political development; Make use of technologic advancements and optimize the economic structure and development.

Essentially, the document calls upon a wide variety of aspects that need to change in Chinese society. From its inefficient industry, to the promotion of a green lifestyle in its population. The document, in its eight chapters, expresses the Party's vision of Ecological Civilization. The future for China, if Eco-Civ building is successful, is characterized by a prosperous society in which scientific innovation is utilized to enhance economic and energy efficiency. A society that is planned according to scientific criteria and most importantly that seeks harmony with nature. Ecological Civilization is another step in Socialism with Chinese Characteristics and a much necessary one if the leadership hopes to achieve its goal of having a modern socialist society by 2050.

It is possible to find in China, and outside of the country, more radical interpretations of Eco-Civ and opposition to Western-style modernization, which is directly related to the subjugation and extermination of the indigenous people of America, Asia and America (Tiejun, 2008). We will mention a few a compare them with the official discourse on this topic. Some

²¹ The document can be consulted in the following link: <u>https://environmental-partnership.org/wp-content/uploads/download-folder/Eco-Guidelines_rev_Eng.pdf</u> (accessed 12.08.2018)

of them were already mentioned in our literature view, such as Wen Tiujin's view and role on the New Rural Reconstruction Movement.

More progressive or radical interpretations of Eco-Civ distinguish themselves from the official views, as they claim that only a profound transformation in Chinese society can help its environment and people from a somber future²². Pan Yue²³, lauded as one of the biggest voices speaking for environmental protection and a transformation of China's development model has exposed some of his thoughts in a series of online publications made available in 2006, a couple of years before becoming a Vice-Minister for Environmental Protection. In those articles ²⁴, Pan Yue blames the capitalist system and Western modernization for the problems that affect the entirety of the globe and its residents. He sees China, a socialist country, being better prepared to achieve sustainability but only if the country does not follow Western's pattern of development. Ecological civilization construction can learn from native knowledge and culture - he mentions Confucianism- but also from European socialism (Eco Marxism/Eco socialism). They include a reflection on the course of development, criticizing the focus on the economic factor. "Development is a good thing in itself. But it must be integrated development across all areas, not just economic development. Only all-round, coordinated development is a good in itself," (Yue, 2006) Indeed, in Pan Yue's writing we start to see a different kind of conception regarding Ecological Civilization as it isn't a mere actualization of the capitalist mode of development, but an integrated process of societal transformation that seeks a new and better model.

John Bellamy Foster wrote an article about China's Ecological Civilization (2015), the author believes that the Chinese state, pressured by the reality of environmental protests and the rapid degradation of ecosystems has embarked on a quest to build a Eco-Civ, but at the

²² By official views, we understand as those found on official documents of the Chinese State and the Communist Party of China. Authors belonging to State controlled agencies, institutions (such as universities) are also included in this designation although it is possible to find nuances in the discourse originating from these sources.

²³ Pan Yue is the current vice-president of the Central Academy for Socialism in Beijing. He started his career as a journalist and from 2008 until 2015 served as Vice Minister of Environmental Protection

²⁴ They can be consulted in the following links: <u>https://www.chinadialogue.net/article/show/single/en/493--The-rich-consume-and-the-poor-suffer-</u>; <u>https://www.chinadialogue.net/article/show/single/en/604-The-environment-needs-public-participation</u>; <u>https://www.chinadialogue.net/article/show/single/en/1167-Green-China-and-young-China-part-one- (accessed 10.08.2018)</u>

same time it cannot fully commit to sustainability as large-scale urbanization, growing demands of energy and weak enforcement of environmental laws persist.

In the end, under a capitalist mode of production it won't be possible to achieve an Ecological Civilization based on harmonious development of all areas of society, in which there is a fair distribution of the socially produced wealth and a philosophy of respecting nature. A radical interpretation of this concept would have to break away with dominant market tendencies inside Chinese society, tendencies that seek profit above everything.

Radical interpretations of Eco-Civ, in other words, are those that refuse the compromise between capitalism and harmonious development. In our literature review, we mentioned a few authors that have taken the concept to a more transformative vision. Tiejun's *et al* (2012) is perhaps the most interesting take on the concept. The New Rural Reconstruction Movement was born in wake of the problems faced by the countryside, following the market-oriented reforms that broke or severely crippled the commune system put in practice during the Mao era. This system, the authors argue, was responsible for the development of poor rural communities and was a guarantee of security for those would could not work. These communes also had the particularity of incorporating indigenous knowledge in the management of the rural areas:

In the ten years of its practice, the RR movement has helped advance ecological civilization as a people's endeavor to promote village cooperatives, organic farming, and eco-architecture. The effort also encourages migrant laborers' organizational renewal by strengthening their basic rights in the coastal regions. In addition, it promotes fair trade and consumer participation in urban areas, drawing on the integrated efforts of rural villagers and urban citizens, including women and the aged, as well as input from intellectuals and urban youth.

This movement, I argue, reflects what was mentioned early in the chapter regarding Walter Benjamin and the Romantic view of history. By incorporating the past into the past, the movement has been able to promote a better future, while also breaking away with the dictates of modernity that enforce individualism, standardization and inequality.

3.5 ECOLOGICIAL CIVILIZATION: PRAXIS

Finally, we will look at the main results since the adoption, by the Chinese government, of Ecological Civilization. As already said, we won't dwell much on the technical aspects, but instead we will seek to draw conclusions that answer the hypothesis we want to test. We will

seek to cover, in a broad sense, the accomplishments and failures of the policies. Given our understanding that Eco-Civ is more than just a set of environmental guidelines, we will also analyze the efforts made in other areas of Chinese society.

To assess the implementation of policies since 2007, the year Ecological Civilization was elevated to a strategic position, we will utilize official documents such as the Five-Year Plans (from the 11th to the 13th) and other official sources that will permit a grasp of policy implementation. We will also complement these sources with other scientific articles and books. With these last section of the chapter, we hope to establish a connection between the theory and practice of Ecological Civilization- the practice should be oriented towards sustainability - in the context of China's national development.

The 11th Five Year Plan presented the guidelines for a more sustainable development model. It had a clear vision towards promoting fair development between urban and rural areas; transforming the economic growth model from export based to investment and consumption driven; enhancement of public services; betterment of the democratic and legal system; promotion of environmental protection. It also called for an optimization of the market system and reforms to allow a better allocation of resources. (Kai, 2006). In 2009, the World Bank published an evaluation²⁵ of the implementation of this plan. The report, following the request of China's National Development and Reform Commission concluded the following:

While the economic restructuring happened in a satisfactory pace with increase in productivity and development of high-tech industries, the same could not be said about the reduction of energy intensity in the secondary sector; Socially speaking, the State made a big effort to improve public services and social protection. For example, there was an expansion of basic urban pensions, unemployment insurance or maternity insurance; basic medical care was also expanded in both urban and rural areas; in the education sector there was an expansion of free compulsory education on a nationwide scale. At the same time, the gap between urban and rural areas continued to rise; On the chapter of sustainable development, the report saw important steps being made. There was a reduction in both water and air pollution and forest coverage expanded. Challenges, however, remained as the report points out. The economic structure, based on a high utilization of resources, continued to pose a threat to a steady reduction of pollution

²⁵ The evaluation can be consulted in the following link: <u>http://siteresources.worldbank.org/CHINAEXTN/Resources/318949-</u> <u>1121421890573/China_11th_Five_Year_Plan_main_report_en.pdf</u> (accessed 19.08.2018)

Authors seem to converge on the idea that the 11th Five Year Plan marked a transition from all-out economic growth based on the *Dengist* idea of " Some must get rich first," to a more sustainable path of development focused on the correction of disparities between regions, on the elimination of severe poverty and inequalities and also on the betterment of the relation between human activity and nature.

Fan (2013), argues that the new approach to development is response to rising inequality between regions and the citizen's protests to the disparities in Chinese society. The author further explains that this new approach is also a reflection of the leadership's willingness in accepting contributions from the civil society.

In terms of sustainability development, the 11th 5YP produced important results. Price *et al* (2010) studied the reduction of energy consumption and greenhouses emissions during the period of the 5YP (2006-2010). The conclusions were positive as China took big steps towards a more sustainable energy structure and overall environmental society. Kang et al (2012), highlight the growth of wind power industry in terms of installed capacity, production costs and potential for the future. Cao *et al* (2009, studied the positive impact of the policies related to the shutdown of inefficient power plants and the reconfiguration of others in the overall quality of the air and reduction of CO2 emissions.

The 12th Five Year Plan (National People's Congress, 2011) presented itself in a different tone. The language utilized is far more sustainability-oriented than the former plan. It is also a reflection of the change in leadership, with the ascension of Xi Jinping. More importantly, it was a continuation of the past plan and a deepening of its intentions. In summary, the 12th Five Year Plan proposed the following: Restructuring of current industries through R&D that promotes efficiency and resource conservation, but also the creation of increased value brands and enterprises with global reach; Promotion of the development of new industries, especially the ones associated with IT and high-tech. Industrial production should apply new methods of energy conservation and smart resource utilization; Betterment of public transportation; Betterment of energy structure with a focus on renewable energies and nuclear energy.

The Plan also focused on the development of Western and Central region, which historically have been "left behind." At the same time, the Eastern regions were expected to lead continue leading development; Continuous struggle against climate change and the improvement of resource management. Socially speaking, this plan focused on the bettering of public services, such as education, national health system and employment; There was also a structured framework to improve working conditions and wages overall, as well as social security. (National People's Congress, 2011)

Wong (2012), sees the 12th 5YP as a good sign given by China's leadership and society to tackle the urgent problems already mentioned. The plan, a continuation of the re-shift initiated five years before, further orientates the country's economy to the domestic-market, while also increasing the investment in modernizing the agriculture, the industrial sector. It also proceeded with the effort to reduce regional unbalances and correct bad environmental practices.

Li *et al* (2016), provide a detailed analysis on the accomplishments of the plan. The authors highlight the continuous growth of the economy, although they mention the relative deacceleration of its pace. In general, progress was made in all sectors in which the Plan had the objective touching. The Chinese government, with the 12th 5YP, increased its efforts to transform the country's economic model, energy structure and environmental policy, which are key points to achieve an Ecological Civilization.

The PRC's National Report on Sustainable Development, published in 2012²⁶, also offers a detailed insight into China's path to sustainability as it complements statistics with policy analysis and theoretical justification to the policies applied. It also has the advantage of going through the different aspects of sustainable development building. From the reading of the document, it is apparent the commitment to a new economic and social model. The opening points mention the need to center development on the people's well-being:

The overall objectives of China's sustainable development are: the total population is effectively controlled; the population quality is considerably improved; the levels of science and technology development and education are significantly enhanced; people's living standards continue to improve; the use of resources and energy becomes more reasonable; the biological and environmental quality is obviously improved; the sustainable development ability is constantly upgraded; and the coordinated development of economy, society, population, resources and environment is basically achieved (NRSD, 2012)

Overall, the period that encompasses both 5YP (2006-2016), and according to what were the official objectives, it can be said that progress was made towards building a sustainable

²⁶ It can be consulted in the following link: <u>http://sdg.iisd.org/news/china-releases-national-sustainable-development-report/</u> (accessed 02.09.2018)

society, which is the aim of Ecological Civilization. Finally, we would like to present the 13th 5YP as it indicates what will China aim to achieve in the future.

The formulation of this plan is marked by the previously set goal of building a moderately prosperous society. The long and detailed document reflects, more so than the previous 5YP, the leadership of Xi Jinping. The appeal to ideology and morals is prevalent throughout the document – Xi Jinping has been a firm defender of anti-corruption and the importance of ethics and morals in Chinese society- with appeals to patriotism, collectivism and socialism. The first lines, in my opinion, are quite revealing of the leadership. If we read the 12th Plan guiding lines, it mentions Deng Xiaoping thought and the theoretical contributions of his successors, but in 13th Plan we can read Mao Zedong Thought and Marxism-Leninism as political and ideological guides to the governance of China.

In Chapter 3 of the document, the main objectives are written, and they include: Maintenance of a medium-high rate of growth. This acknowledges the new normal of economic growth which seeks to be more inclusive, modern and fair to all; Achieve results in innovationdriven development. The appeal to scientific and technological innovation is again a key point in a 5YP; Further coordination of development. Which means the scientific development, or a planned development that created balances between regions; Improve standards of life. The betterment of public service systems such as healthcare, education, housing or social security remains a priority for the next 5 years. All rural residents below the poverty line are expected to lift themselves out of it; Improve the overall caliber of the population and the level of civility. This point, already mentioned, is perhaps the biggest news. It says "We will broadly advocate patriotism, collectivism, and socialism. People should work to improve themselves, cultivate a sense of virtue, act with honesty, and help each other out. We will work toward a significant improvement in the intellectual, moral, scientific, cultural, and health standards of our citizens." (Central Committee of the CPC, 2016); Achieve an overall improvement in the quality of the environment. The modes of production are expected to become eco-friendlier and gears towards a low-carbon and circular economy;

Ensure all institutions become more mature. The betterment of public institutions, people's democracy and human rights protections is also a key point on the agenda of the Chinese government.

4. CONCLUSIONS

Succinctly, it is safe to say that China has adopted a policy oriented towards sustainability. Our research question and the respective hypothesis sought to situate the People's Republic of China in terms of sustainable development. In other words, how far has the Chinese government gone in terms of Ecological Civilization building?

First, the radical interpretations of Eco-Civ, although present in Chinese academia and even in some social movements, such as the New Rural Reconstruction Movement, have not any had formal acknowledgment by the leadership of the country. These radical interpretations that question the logic of capitalism, of the market and to a certain degree, of modernity itself are prevalent in the academic circles inside China and in the West. Given the trajectory of the Chinese national development plan since 1979, I do not consider realistic to expect the Chinese government to suddenly revert market-reforms. As Elias Jabour would put it, China is a developmental state not a revolutionary one. A country that considers itself in the primary phase of socialism – a phase that not only acknowledges capitalist production relations but encourages them – is in no condition to stop its developmental model. Doing so, would not only hinder its present, but raise a big question mark in its future goals of constructing a modern socialist country. This is perhaps the great lesson I learned in the months I spent doing this research.

On the other hand, and the awakening to sustainability by the Chinese government and civil society, is also a reflection that the model post-1979 – which itself was built upon the Maoera model – has produced grave unbalances in the Chinese society and its environment. The *productivist* logic, characterized by obsession with economic growth and constant expansion of the productive forces is no longer viable in China or in the world for that matter. More than ever, humanity has the material conditions to create sustainable societies that guarantee life in the present and in the future. It is not a coincidence that the Asian superpower has greatly raised its investment in green technology and began to change its development model to correct the unbalances in society. The birth of Scientific Outlook on Development, Harmonious Socialist Society and Ecological Civilization reflects the rising concern with China's future. The continuation of the old model would also threaten the goal of building a modern socialist society. A threat that still looms in present days, as decades of unbalances aren't corrected in ten or twenty years.

China won't pursue radical policies, at least not the ones idealistic conceptions of socialism or other revolutionary theories are used to, but it won't maintain the GDP centered

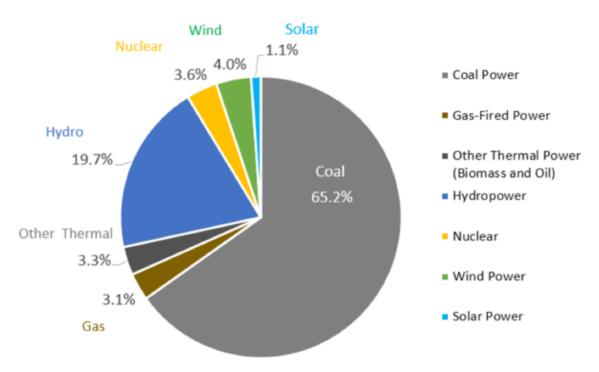
model which had little to no regard towards humans or the environment. So, what will China do? Given the past trajectory (especially the last ten years) of policy making and practice, characterized by moderation and local resistance to central policies, I think that China will maintain the main structures of its socio-economic model. A state-controlled market economy with a progressive rise of the role of science, technology and green policies. Ecology is on the horizon of the People's Republic, but as with everything in this vast country, it will be with Chinese characteristics.

Given China's historical and material reality, economic development – quantitative and qualitative growth – is imperative. It is impossible analyze China's ecology, with all its dimensions, without centering that analysis on the material aspect of Chinese society. Its international insertion, its historical development and its contradictions. At the same time, a more sustainable development model – Ecological Civilization- may help contra balance some of the problems faced nowadays by China. More secure energy sources, such as solar or wind power, will certainly help reduce the dependency on foreign forces. It may also help reduce China's fossil resources consumption and greenhouse emissions which benefits the national territory but also the globe.

In terms of soft-power, and perhaps this theme may be further explored in a future research, China's green rhetoric and praxis may prove itself quite helpful soon, especially if we consider the United States recent internal political developments that open up a space that can be filled by China. If the People's Republic of China is successful in transforming its modelat an economic, social, cultural, political and environmental level- then perhaps the country may enjoy a wider acceptance and even cooperation in the international community. Obviously, this prompts another question and that is: Does China seek to replace the United States of America as the hegemonic force? Another possible theme of research, one we considered before embarking on the present work.

For now, and in the foreseeable future, China will continue to consolidate its internal affairs, while forging new alliances and keeping old ones. It will be interesting to see how the process of building an Ecological Civilization unfolds and if the proposed goals are achieved. The political will is present but sometimes that is not enough, and China knows that all too well.

Annexes



China's 2016 Power Generation Mix

Figure 2.4.1 China's 2016 Power Generation Mix

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