Energy policy and environmental protection in Ecuador

Analysis of the causes and consequences of the failure of the Yasuní-ITT Initiative

(Mural in the town of Mindo, Ecuador. Photographed by the author, July 13, 2019)

Jerike Waterhout

1709453

Master thesis Latin American Studies

Specialization: Public Policies

Leiden University

Supervisor: Prof. dr. E. Amann

Leiden, May 11, 2020

Contents

Introduction

Over the last years, international politics as well as academic literature have been directed towards increasingly topical subjects such as environmental conservation and sustainable development (Pellegrini et al., 2014; Speth, 2004). However, development strategies depending on the intensification of the extraction of raw materials for economic growth and social development remain prevalent throughout Latin America, generally refer red to as extractivism or neoextractivism (Dietz & Engels, 2017). The Ecuadorian economy is still developing and remains greatly dependent on oil exports (Larrea & Warnars, 2009). Intrinsically, the current economic model is not based on sustainability, but on extractivism instead, which not only applies to Ecuador, but to the global economic system as well.

Oil exploitation persists throughout the country, but one location has particularly been subject to long-standing debate, i.e. the Yasuní National Park. Yasuní National Park is a conservation area located in the eastern part of Ecuador, bordering with Peru. Yasuní is well-known for its exceptional biodiversity as well as cultural diversity (Espinosa, 2013; Espinosa-Landázuri & Mancera-Rodríguez, 2015). The park is home to several indigenous peoples, including two indigenous tribes living in voluntary isolation inside the park (Espinosa, 2013; Larrea & Warnars, 2009). Nevertheless, the park also harbours some of the country's largest oil reserves. The exploration and subsequent exploitation of such reserves in places like the Yasuní national park has many consequences, not only locally in the form of oil spills, disruption of habitats, damages to flora and fauna, pollution of soil and water, as well as reduced air quality, but also globally, in the form of increased greenhouse gas emissions (Van Hinte et al., 2007; Rosell-Melé et al., 2018). Moreover, oil residue contaminates plants and animals, which poses health risks for the indigenous communities living off the land and relying on subsistence hunting (Rosell-Melé et al., 2018).

As a response to increasing opposition towards oil exploitation in the park, the Yasuní-ITT Initiative was established in 2007 under the government of President at that time, Rafael Correa. The Initiative proposed to discontinue oil extraction in part of the Yasuní National Park, i.e. the ITT[1] oil block, leaving 920 million barrels of oil underground (Coryat, 2015; Coryat & Lavinas Picq, 2016; Larrea & Warnars, 2009; Pellegrini et al., 2014; Vallejo et al.,2015). In return, the proposal asked for financial compensation from the international community (Sovacool & Scarpaci, 2016).

The Initiative's main objectives were to respect and protect indigenous territories, to protect the flora and fauna of the park and to combat climate change in general by avoiding greenhouse gas emissions (Bass et al., 2010). Consequently, the Yasuní-ITT Initiative had the opportunity to set an example of global collaboration in conservation by proposing to share the costs and benefits of conservation internationally (Pellegrini et al., 2014). Accordingly, achieving a sense of co-responsibility from the international community can be seen as a more implicit goal of the proposal. This can in fact be related to the debate between industrialized countries and developing countries concerning the responsibility for environmental damages and climate change. The financial donations as contributed by the international community, would be admitted into a trust fund directed towards investments in conservation, renewable energy, and social development in Ecuador (Larrea & Warnars, 2009; Sovacool & Scarpaci, 2016). In a certain sense, the Initiative provided the possibility of transitioning towards a more sustainable economic model, drawing attention to existing extractive policies.

In July 2013, however, the Initiative's progress was evaluated by a commission established especially for this purpose, which concluded economic results were insufficient. Following this conclusion, Correa

[1] The ITT block comprises of the three oil blocks Ishpingo, Tambococha and Tiputini

cancelled the Initiative on August 15, 2013, blaming the international community for lack of financial support and stating the importance of extractivist revenues for Ecuadorian development (Coryat, 2015; Coryat & Lavinas Picq, 2016). However, the full story behind the cancellation of the Yasuní-ITT Initiative is much more complicated and thus forms the main study object of this paper.

To expound the cancellation of the Initiative and the underlying reasons leading up to its failure, several sub questions needed to be answered, thereby using the relevant theory.

1. *What were the factors that have contributed to the failure of the Yasuní-ITT Initiative?*

First, the Ecuadorian economy remains greatly dependent on extractivism for the country's development, leaving little room for ecologism. Consequently, the lack of financial support from the international economy did not aid the Initiative's progress.

2. *Which factors represented either strengths and weaknesses on the one hand, and opportunities and threats on the other hand?*

The main strengths of the Initiative are related to the Initiative itself and its innovative character. The idea of leaving oil underground in order to protect indigenous peoples and biodiversity has great potential throughout the world. An overarching weakness was the continuous possibility of extraction due to the dependence on extractive revenues, resulting in a lack of commitment to the Initiative. Global tendency towards the development of renewable energy sources, together with increasing awareness on the issue of climate change offered an opportunity for the Initiative, whereas the dependence on the realization of international co-responsibility threatened the Initiative's progress.

3. *What has caused the lack of economic support from the international community for the Initiative?*

International economic support was insufficient not only because of the 2007 financial crisis, but also due to a lack of understanding from the international community. Furthermore, the fear of setting an example for similar projects was a reason not to contribute.

4. *What have been the consequences of the failure of this Initiative at the local level?*

The persistence of an extractive economy with its negative effect on the environment and the local indigenous peoples, can be seen as the main consequence of the cancelation of the Initiative.

The first chapter provides the theoretical framework, explaining relevant concepts such as extractivism, the resource curse, the environmental impacts of oil exploitation and several lessons that can be learnt from other cases of extractivism. Furthermore, it describes the dilemma between ecologism and economism as faced by countries like Ecuador that depend on the revenues of primary resources for their development. Chapter two then contextualizes the Initiative, providing information on the Yasuní National Park itself, the Initiative, as well as the importance of conserving biodiversity and cultural diversity. Furthermore, it places the Initiative in the perspective of sustainable energy policies. Finally, chapter three provides a description of the used methodology, followed by the empirical analysis of the Yasuní-ITT case, which mainly consists of a SWOT analysis. Information has been gathered through in-depth semi-structured interviews with previous ministers, as well as stakeholders of the Initiative, politicians, scientists, and activists.

Chapter 1: The dilemma of conservation vs. exploitation

This section taps into the dilemma of conservation versus exploitation and the underlying paradox of ecologism versus economism, thereby explaining the relevant concepts and theories involved. Furthermore, it describes the environmental, social as well as economic impacts of oil exploitation and attempts to take lessons learnt from other cases of extractivism into account.

1.1 Extractivism and the resource curse

According to Diamanti (2018), "extractivism names a given economic form of organizing natural and social resources in which sustained profitability depends on the extraction, over time, of an increasing amount of natural resources from the earth" (pp. 55). Acosta (2013) uses the term "to refer to those activities which remove large quantities of natural resources that are not processed (or processed only to a limited degree), especially for export" (pp. 62). Contrary to popular belief, extractivism is not limited to oil and minerals, since farming, forestry and even fishing are also types of extractivism (Acosta, 2013; Svampa, 2019). The origins of extractivism actually stem from the conquest and subsequent colonization of the Latin American region, thereby illustrating the start of European capitalism (Svampa, 2019). Extractivism can thus be seen as an economic concept that is internal to capitalism (Diamanti, 2018, pp. 55).

Extractive industries heavily impact the economies and societies of the countries involved, because it often generates a dependence on the export of primary resources. Historically, Latin America has experienced widespread poverty, recurrent economic crises and 'rent-seeking' mentalities among governments, due to these extractivist processes (Acosta, 2013, pp. 63-64). Apart from damaging the environment, extractivism influences society through undermining democratic institutions, enabling corruption and driving a wedge between societies and local communities (Acosta, 2013). Furthermore, the construction of citizenship is jeopardized by the patronage and clientelism that are often related to extractivism (Acosta, 2013, pp. 64).

An economic model based on the use of natural resources as a means to improve economic development may appear relatively simple, as a country that possesses natural resources, such as hydrocarbons or minerals, could transform these assets into human and physical capital, thereby sustaining employment and promoting economic growth (Venables, 2016). However, only few of the resource-rich developing countries have successfully managed to improve their economic growth, especially in comparison to countries without such an abundance in natural resources (Venables, 2016). The question thus arises why those resource-rich countries with economies based on extractivism have been experiencing less economic growth and social development as would be expected from a country that possesses such valuable natural assets.

During the beginning of the twenty-first century, a period of economic growth commenced for Latin American economies, due to high international prices of commodities, resulting in a commodity boom (Svampa, 2019). This rise in commodity prices led resource-rich countries to suddenly grow faster (Venables, 2016). This increased pressure on natural goods, lands and territories also led to increasing disputes and conflicts between indigenous organizations, socio-territorial movements and new socioenvironmental groups on one side, and governments and large economic corporations on the other (Svampa, 2019, pp. 1, pp. 10). Furthermore, extractivism has continuously been a mechanism of colonial and neo-colonial plunder and appropriation, especially since the raw material exploited was destined for the industrial development and prosperity of the global North, without taking sustainability and the possible exhaustion of resources into account (Acosta, 2013, pp. 63). In other words, the products of extractivism have historically been used for export and not for the domestic markets, which leads to little actual benefits for the hosting country despite its wealth in primary

resources. At the same time, companies involved in extractive practices are mostly international, and national companies are often left out (Acosta, 2013). Also, an economic model based on the exportation of primary resources is very dependent of global demand for the product and the volatility of such sources of income can destabilize the economy of those countries (Svampa, 2019; Venables, 2016). This volatility is only partly predictable, like when opening new deposits of resources or closing the depleted ones (Venables, 2016, pp. 166). The remainder is unpredictable and dependent on price volatility, which particularly impacts oil revenues more than other primary resources (Venables, 2016). Furthermore, Acosta (2013) states that in those countries whose economies are dependent on extractivist practices, there is often little control over how the income from extractive industries is used.

Two types of extractivism can be distinguished: traditional extractivism and neo-extractivism (Svampa, 2019). Traditional extractivism is mostly persevered by conservative governments, whereas in cases of the more progressive neo-extractivism governments attempt to guarantee social legitimacy by spending extractivist income on social programmes, thereby investing in social and human capital (Arsel et al., 2019; Svampa, 2019). However, this does not change the social and environmental impacts of extractivism at either local or global levels.

Disposing of an abundance of natural resources thus often characterizes an economy based on the export of primary commodities, specifically in the case of minerals or oil. The economic structure is therefore disrupted, often leading to a regressive redistribution of income and a concentration of wealth among a small number of people (Acosta, 2013). In this respect, Shaffer (2016) mentions the concept of immiserizing growth, which "occurs when economic growth leads to no, or very limited, economic gains for those at the bottom of the distribution" (pp. 1).

A different definition of extractive states is expounded by Acemoglu and Robinson (2012), as they attempt to provide an explanation as to why nations develop differently, and why some nations fail. In the process they make use of institutional economics, development economics, as well as economic history, stating that differences in economic success can mostly be attributed to institutional differences. They mention extractive institutions, which are directed towards extracting income and wealth from one part of society to benefit another, and extractive political institutions, which concentrate power in the hands of a small elite group with few constraints on the use of this power. Under extractive institutions, states are often able to generate rapid economic growth. However, this type of growth will eventually expire and collapse (Acemoglu & Robinson, 2012). They further conclude that nations tend to fail when they have extractive states. They thus conclude that the established political and economic institutions determine economic success, or the lack thereof (Acemoglu & Robinson, 2012). Furthermore, evidence demonstrates that the natural resource curse is more likely to affect countries with weak institutions (Acemoglu & Robinson, 2012). Profound dependence on natural resources for government financing, tend to prompt weak institutions and a weak state (Mahdavy & Cook, 1970).

Those countries with an abundance of a few primary resources, especially minerals or oil, thus appear to be destined for underdevelopment (Acosta, 2013; Venables, 2016). Subsequently, two concepts that arise in this context are the resource curse, and the Dutch disease. The Dutch disease is "a process that infects a country that exports raw materials when their high price or the discovery of new deposits triggers an export boom" (Acosta, 2013, pp. 64). The term originates from the Netherlands, where national gas reserves were discovered and subsequently exported, leading to an immense increase in foreign exchange reserves (Venables, 2016). This in turn led to an appreciation of the country's currency, which caused the overall competitiveness on the global market to deteriorate, thereby diminishing the export of other products (Venables, 2016). As such, even when revenues are effectively

distributed, the high levels of export are bound to appreciate the exchange rate, impairing the development of other trade sectors (Venables, 2016).

The Dutch disease often comes along with the resource curse. Those countries that have experienced the Dutch disease often experience the resource cursed as well. The resource curse refers to the existing paradox that countries with an abundance in natural resources, often tend to have limited economic and social development (Venables, 2016). In this case, because of the dependence of the Ecuadorian economy on the export of oil, the country can be considered resource cursed. The concept of resource-rich countries being cursed points out the relative underperformance of such countries. Venables (2016) mentions examples such as Bolivia, Nigeria, and Venezuela, which have historically experienced disappointing economic performance. According to Venables (2016) the overall growth performance of all resource-rich countries included in their analysis, has been feeble, except for a few countries, among which Botswana, Malaysia, and Chile. Historically, the relative failure of economies from countries with an abundance in resources has been a frequent topic of study. Scientific evidence has shown that an economic dependence on the exploitation of natural resources negatively impacted GDP per capita growth (Sachs & Warner, 1995; Sachs & Warner, 1997) and development in general (Gelb, in Sachs & Warner, 1995; Auty, 1990). Mehlum, Moene and Torvik (2006) investigated growth in resource-rich countries in relation to institutional quality and found that the negative effect on growth that is often found with resource rich countries in fact only counts for countries with poor institutional quality. They make a critical comment on the general finding that resource-poor countries generally perform better economically than their resource-rich counterparts, by mentioning several resource-rich countries that have actually performed very well, such as Botswana, Canada, Australia, and Norway. As such, having an abundance in resources is not a curse in itself for a country, but there are many factors weighing in on the effects of this resource abundance making it economically risky if not effectively managed.

In almost all countries with primary resources, these assets are property of the state (Venables, 2016). The United States are the sole exception. The successful management of those natural resources calls for governments that are well-intentioned, far-sighted, and highly capable of managing those goods effectively (Venables, 2016, pp. 162). Adequate institutions can mitigate corruptive practices by politicians, such as the ability to buy votes through inefficient redistribution of resource revenues (Mehlum, Moene & Torvik, 2006).

As such, governance is often a reason for the lack of growth and development generated through resource extraction, thus the experience of a resource curse (Acemoglu & Robinson, 2012; Mahdavy & Cook, 1970; Mehlum, Moene & Torvik, 2006; Venables, 2016). Mehlum, Moene and Torvik (2006) state that growth performance is primarily dependent on the institutional distribution of resource rents, mentioning weak rule of law, mal-functioning bureaucracy, and corruption as risk factors. They also refute Sachs and Warner's (1995) findings dismissing the role of institutions related to the resource curse, since even though an abundance in resources does not necessarily influence institutions, institutions do actually play an important role in the decision-making process concerning how natural resources may impact economic growth (Mehlum, Moene & Torvik, 2006). Resource-rich countries such as Botswana and Norway owe their success to strong institutions and absence of corruption, respectively, while on the other hand Nigeria, Venezuela and Mexico are examples of resource-rich countries whose disappointing economic performance is attributable to the dysfunction of their institutions (Mehlum, Moene & Torvik, 2006).

1.2 Ecologism vs. economism

> "*Sometimes it is implied that mankind is simply a part of nature, with no claims to superiority or special treatment, in which case mankind has no more obligations to nature than a slug has to a*

cabbage leaf. Sometimes, though, they rather shamefacedly admit humans have unique awareness and moral responsibility – mankind is in nature, but not wholly of it."
Harrison & Boyd (2018, pp. 287)

The cancellation of the Yasuní-ITT Initiative revealed a transposition within the government from ecologism to economism, since the direction of Ecuadorian politics shifted from conservation and protection of the environment, towards a neo-extractivist approach directed towards gaining revenues from extractive practices in order to achieve development (Coryat, 2015; Lalander & Merimaa, 2018). This resembled the regional trend of *gobiernos progresistas*, with public policies focussed on economic and social development, thereby intensifying extractivism and criminalizing protest (Coryat, 2015). Alberto Acosta (2013) states that the resource curse is not so much a curse, but more of a choice. This choice to take a different path, however, is rather complex. Burchardt and Dietz (2014) provide two reasons for the persistence of extractive economies throughout Latin America. First, the persisting global demand for raw materials is fundamental here, since changing directions from the supply side proves to be challenging, when the demand side of the economy cling to old habits. Second, the lack of alternative development strategies that could guarantee structural changes within society does not encourage such a transition.

Interestingly, ecologism is often used interchangeably with the term environmentalism. However, an important distinction is to be made. For environmentalism, issues concerning climate change and the environment are expected to be addressed within the existing political and economic structures, through a wise and willing government, appropriate legislation, and environmental awareness among consumers (Harrison & Boyd, 2018). Environmentalism in a way also corresponds with green capitalism, which remains based on the market principles and thus pledges for the use of market-based policy options for the mitigation of environmental issues (Le Quang, 2015). Ecologism goes beyond the existing structures and states that in order to be able to realize more ways to protect the environment, the global economic structure needs to be changed thoroughly (Harrison & Boyd, 2018). This distinction is very relevant for this study and needs to be considered during the continuation of the paper.

Both environmentalism as well as ecologism form part of the so-called green movement, which expresses itself in civil society as well as politics, and genuine commitment to this green movement requires specific lifestyle adjustments, such as a commitment to recycling, using public transport or vegetarianism (Harrison & Boyd, 2018). As such, according to Harrison and Boyd (2018), ecologism thereby resembles a religious, rather than political creed (pp. 278). Consequently, this often leads to a conflicted division between the 'dark' and 'light greens', where the dark greens are more radical, and striving for a renewed society away from the current consumerist and industrialist focus, whereas the light greens take a more moderate, pragmatic approach to the green ideology that fits within the existing structures (Harrison & Boyd, 2018). The fundamental difference between light and dark greens is that dark greens focus on the complete biosphere, including all living creatures, whereas for light greens, humankind still forms the centre (Harrison & Boyd, 2018). This distinction is similar to the distinction between environmentalism and ecologism. Thus, to many ecologists, the earth does not revolve around humankind, but rather human beings form part of the global natural order that is characterized by interdependence (Harrison & Boyd, 2018). In other words, one way or another humanity and all other species of flora and fauna on the planet depend on each other, thereby fulfilling their duty in sustaining the whole biosphere.

During the 1960s and 1970s, the idea emerged that all life on earth, the biosphere, was being threatened due to overpopulation, intensive, or industrial, agriculture and chemical pollution (Harrison & Boyd, 2018). Furthermore, the world started to understand that several economic resources, such

as fossil fuels, cannot be infinitely extracted from the earth. Additionally, deforestation, destruction of rain forests, pollution of oceans and the extinction of many species demonstrated the heavy environmental impact of economic development (Harrison & Boyd, 2018). Moreover, the ozone depletion was also discovered since the 1970s, which during the following decades became accompanied by other issues such as global warming, the impact of motorized vehicles and infrastructure on the environment and human as well as animal health, and the risks that come with the generation of nuclear power (Harrison & Boyd,2018). By the 1980s and 1990s there was a growing body of literature providing evidence of ozone damage, rising rates of species extinction, resource depletion, and the dangers to the biosphere of new forms of pollution (Harrison & Boyd, 2018, pp. 277). As a response to this growing awareness, in the 1980s an increasing number of political parties committed to ecologism emerged from the idea that efforts should be put into preserving our earth through political action (Harrison & Boyd, 2018). Many environmental issues could be addressed through the development of green public policies, for example concentrating on sustainability, energy supply, overpopulation etc. Green politicians thus come up with new policy options to tackle problems related to environmental issues.

Together with green politics comes the concept of green economics, which criticizes the persisting system of industrialism, that is characterized by economic growth, industrial expansion, technical innovation with a focus on satisfying material needs (Adams, 1999). Other characteristics, as defined by Adams (1999) include an anthropocentric view of the world, a hierarchical social structure concentrating wealth and power at the top and the predomination of economic considerations, thereby devaluating social, moral and artistic values (pp. 177). When looking at this system from a green perspective, according to Harrison and Boyd (2018), it not only debases human beliefs, it also squanders irreplaceable physical and biological resources and degrades the environment, ultimately to the point of ecological collapse (pp. 284). Furthermore, even though industrialism strives for satisfying material needs, poverty is still an important issue in both the developing as well as the developed world (Harrison & Boyd, 2018). One very important critique on industrialism and its focus on continuous economic growth, is the assumption that earth's resources are infinite (Harrison & Boyd, 2018). Furthermore, the system measures well-being through GDP levels, thereby ignoring important external impacts on wellbeing such as atmospheric pollution and stress (Harrison & Boyd, 2018). As such, greens strive for economic activities directed towards satisfying need, rather than greed, which can be done through small-scale and co-operative enterprises (Harrison & Boyd, 2018). However, as is the case with introducing more green politics, this requires an important change of society as it is.

The attempt to establish an economic system with more attention to green issues would thus require a reduction in the consumption of energy and non-renewable resources, thereby establishing a system that is more sustainable (Harrison & Boyd, 2018). Solar, wind, wave, and geo-thermal power are sustainable and renewable alternatives to coal or oil, which are finite resources with significant environmental impacts (Harrison & Boyd, 2018). Furthermore, localized production could trigger a reduction in international trade, thereby reducing the environmental impact of the economy.

Obviously, deforestation and biodiversity loss are examples of genuine concerns. However, greens are criticized for their dramatized and exaggerated depictions of reality, thereby often predicting global disasters. Critics state that greens have manipulated statistics to create false impressions of environmental disasters (Harrison & Boyd, 2018). Furthermore, greens are accused of a lack of strategy to reach the global situation that they deem ecologically and environmentally ideal (Harrison & Boyd, 2018). However, many of the changes that are proposed by the greens, do require an impressive transformation of society, addressing the currently established political and social systems, as well as the economic system. It is also highly likely that many people will be reluctant to such a transformation.

However, raising awareness while referring to reason and evidence, is seen as a starting point and a tiny step towards the desired direction.

The choice between ecologism and economism, or between conservation and exploitation is thus not as simple as it would seem. Regarding the environment, the choice seems rather obvious: ecologism over economism, and conservation over exploitation. Support and awareness regarding environmental issues have been growing steadily, but is also experiencing some highs and lows, depending on the economic situation at hand. A growing economy and employment leaves room for environmental concerns, while such issues are more often ignored during recession with lower levels of employment (Harrison & Boyd, 2018).

As explained previously, many countries that are facing the choice between ecologism and economism, are often dealing with underdevelopment, together with poverty and inequality and thus need the income from extractivist practices due to a lack of sustainable alternatives that are sufficiently lucrative. Then there is the option to attempt to make extractivism more sustainable. However, the majority of extractivist practices could never be made sustainable, because of its destructive character (Acosta, 2013).

The complexity of the dilemma is also very well illustrated by Arsel et al. (2019) on a more local level as they explain the paradox encountered by many individuals and communities living in the Amazon. Clearly, they find that the oil industry has detrimental effects on their communities, not only environmentally but also economically. However, they also tend to support the expansion of extractive practices in their territory, mainly because it provides employment (Arsel et al., 2019). As such, even local communities sometimes see these extractive practices as an opportunity for economic development, as a way out of poverty (Aragón & Rud, 2013).

When contemplating the decision between ecologism and economism, the concept of environmental justice comes to mind. Furthermore, the question arises who is to take responsibility for the damaging and subsequent protection of the environment. As expressed by Harrison & Boyd (2018), "all living beings can be regarded as 'stakeholders' in the health of the planet" (pp. 283). This can be related to the concept of co-responsibility, or joint responsibility, which was addressed by the Yasuní-ITT Initiative as investigated in this paper. The ongoing debate on who is responsible for climate change has historically led to a disagreement between the developing and developed countries. Addressing climate change, however, is a collective responsibility (Harrison & Boyd, 2018; World101, n.d.). The industrialization that the developed countries have went through during the 18th and 19th century lies at the essence of this debate, since the developed countries have largely been responsible for the majority of the amount of carbon dioxide emissions in the world (World101, n.d.; Le Quang, 2015). Consequently, politicians in developing countries believe that these western, developed countries should pioneer in combatting climate change (World101, n.d.; Le Quang, 2015). However, the developing countries are presently going to the process of industrialization, which gives the leaders of those countries some responsibility on managing and mitigating climate change as well.

The developed countries see climate change more as a global problem, where everyone must take some responsibility, even if that would mean the abandonment of certain aspects of development (World101, n.d.). However, from the developing countries' viewpoint, this might sound somewhat hypocritical, since the developed countries have benefited substantially from their pollutant process of industrialization, while developing countries are now being held back in their development due to environmental issues (World101, n.d.). Nonetheless, in disregard of these differing perspectives on which countries should take more responsibility, it has become clear that climate change affects

everyone. As mentioned before, all living beings are stakeholders in the health of the earth. Consequently, all countries and all leaders will need to address their responsibility.

1.3 Environmental impacts of oil exploitation

In 1967 rich reserves of oil were discovered beneath the soil of the Ecuadorian Amazon, which has led to the creation of a vast network of roads, pipelines, and other oil facilities throughout this biodiverse rain forest (San Sebastián & Hurtig, 2004). Consequently, the construction of all this infrastructure has had an impact on the environment, even without taking into account the pollution that comes with the oil industry. Ecuador is now still among the largest oil producers in South America, pumping 500,000 barrels of crude oil every day in 2015 (Maddela et al., 2015). Since the 1970s oil has thus been the most important driver of the Ecuadorian economy. Water pollution, soil contamination, deforestation and cultural upheaval are among the ecological problems created by oil exploitation (Gesinde et al. in Maddela et al., 2015). The socio-environmental sustainability of the petroleum industry active in the Ecuadorian Amazon is therefore highly questionable (Facchinelli et al., 2020).

One can distinguish between direct and indirect effects of oil exploitation. As stated by Facchinelli et al. (2020), direct effects include deforestation and forest degradation due to drilling platforms, pipelines, access roads, seismic prospection and chemical contamination of water bodies from wastewater discharges, oil spills, venting and flaring of associated petroleum gas (pp. 2). Indirect effects are attributed to the opening of roads for oil exploration and transportation, turning terrestrial communications infrastructures into the main vector for the colonization of primary forest and indigenous territories (Facchinelli et al., 2020, pp. 2).

Oil exploitation comprises two main operations that could potentially affect the environment, namely drilling and production (Reis, 1996). These two types of operations concerned with oil exploration and exploitation produce considerable amounts of waste (Reis, 1996). Furthermore, oil practices are contaminating the environment, the rate of which depends on the practices and on used techniques (San Sebastián & Hurtig, 2004). Wastewater from oil extraction for example, is often released into the environment, either accidentally or illegally.

There are many possible ways in which wastewater can enter surface and ground water, such as pipeline spills and spills by the tanker trucks that are transporting the waste, as well as leakages from storage ponds or tanks (Konkel, 2016). The release of wastewater has immediate visible ecological impacts as well as potential impacts on human health, although less is known about the effects on human health (Konkel, 2016). In the case of National Park Yasuní ecological, environmental as well as human health effects are relevant, because of the great biodiversity and because of the indigenous peoples living inside the park, who see their territories affected by oil practices and therefore may face health consequences.

Concerning human health risks, research has shown that proximity to drilling practices could decrease semen quality and increase risks of miscarriages, birth defects, preterm birth, low birth rates and prostate cancer (Konkel, 2016, pp. 232). The spills and leakages of wastewater produced by drilling activities are known to increase methane levels in local water supplies, as well as metals in drinking water (Konkel, 2016). However, not only water is subjected to pollution by oil exploitation. The soil can be damaged by the high salinity from drilling wastewater, since this kills most plant life and clogs the clay soils' pores, making it difficult for new plants to take root due to the reduction in permeability of the soil (Konkel, 2016, pp. 234).

One of the sources of pollution from the oil industry that is considered to be most consequential is oil spillage, which is mostly due to the fact that the effects of such spillages are immediately visible in the environment (Audu et al., 2016). Another important issue concerned with the exploration and exploitation of petroleum, is gas flaring. Gas flaring involves the combustion of associated natural gas generated through oil drilling. Flaring waste gas thereby not only generates an energy leak, since the gas could be reused for energy sources, but it also forms an important source of pollution (Facchinelli et al., 2020). Gas flaring is a serious issue because it releases harmful pollutants into the air (Audu et al., 2016). According to scientists, the current issue of global warming is mostly brought about by the increased levels of heat-trapping gases, or greenhouse gases, in the atmosphere (Audu et al., 2016, pp. 252). Gas flaring is thus an example of an activity that releases large amounts of these greenhouse gases into the atmosphere, which negatively affects the environment.

Photo 1: Gas Flaring in Yasuní National Park (Source: Prokosch, P. (2014))

Therefore, to avoid significant irreversible changes to the earth's climate, approximately 30% of the oil reserves, 50% of natural gas and 80% of coal reserves should be kept underground globally (Facchinelli et al., 2020, pp. 3). Keeping at least these amounts of fossil fuels underground, should be able to keep the increase in global temperatures below the 2 degrees Celsius within the years leading up to 2050, as was established in the Paris Agreement under the United Nations Framework Convention on Climate Change stemming from 2016 (Facchinelli et al., 2020).

1.4 Lessons learnt from other cases of extractivism

As mentioned in section 1.1, Ecuador is not the only country that has been struggling with extractivism and development. Various developing countries have had to deal with extractivism and the resource curse (Venables, 2016). As mentioned, the lack of growth and development through extractivism can mostly be attributed to weak governance (Mehlum, Moene & Torvik, 2006; Venables, 2016). Botswana, Canada, Australia, and Norway are examples of resource-rich countries that have been more successful in their development, which is mostly due to the strength of their institutions and lack of corruption (Venables, 2016). Venables (2016) mentions that there have been significant improvements in the quality of economic management in resource-rich countries, particularly in Africa. This illustrates that lessons have already been learnt from other resource-rich countries.

Future prospects on the market for primary resources call for adjustments in the management of these resources. The years 2014-2015 have shown a fall in the prices of commodities and it is to be expected that prices, at least for hydrocarbons, will remain low, which is mostly due to conservation efforts and changes on the supply-side of energy markets, such as fracking in oil markets (Venables, 2016). Therefore, to reassure their future development, countries with an economic dependency on resource exploitation are forced to rethink their economic structures. Examples include the promotion of growth in non-resource export sectors, as well as a focus on renewable energy sources (Venables, 2016).

This growing awareness on conservation has developed in Latin America during the last few years, where social protest movements have experienced an "eco territorial shift", which put a focus on the defence of territory and natural resources (Lang, 2013). Throughout Latin America, the persistence on extractivism spiked an immense increase in socio-environmental conflicts related to territory and

common goods (Svampa, 2013). This has led to debates on concepts of progress, views on nature, and the role of indigenous peoples (Svampa, 2013).

Peru, for example, knows a longstanding conflict in the northern Amazon between indigenous groups, oil companies and the state (Orta-Martínez et al., 2018). The Peruvian government did acknowledge the environmental as well as health risks for the indigenous peoples living near the oil blocks, but none of the measures taken have proved to guarantee indigenous peoples' rights (Orta-Martínez et al., 2018). The Peruvian government has thus shown to have been ineffective in mitigating those environmental and health risks, until the discovery of severe oil-related pollution, which led the government to declare a large area as a health emergency (Orta-Martínez, et al., 2018). Only after discovering such a health hazard, the government started to implement new technologies, as well as improved regulations and standards in order to mitigate these polluting effects (Orta-Martínez et al., 2018). Several observations in the Latin American region, like Bolivia, show that this tardiness and ineffectiveness in taking measures has actually been the norm in countries with extractive practices (Arsel et al., 2016; Pellegrini, 2018; Powęska, 2017).

The case of oil extraction in the northern Peruvian Amazon demonstrated that open conflict by indigenous activists threatening the oil operations, and thus the oil economy, has been the most effective strategy in addressing environmental injustice (Orta-Martínez, et al., 2018). Such conflicts have managed to encourage changes in operational procedures and standards, thereby reducing the socioenvironmental impact of the oil companies active in the area (Orta-Martínez et al., 2018). Examples include "produced water reinjection, changes of environmental standards in the Peruvian legislation, improvement of monitoring schemes, remediation of oil-polluted sites, implementation of drinking water treatment plants and health care plans, to land titling, payment of the easement right, and redistribution of the royalties" (Orta-Martínez et al., 2018, pp. 8). Under certain circumstances, local communities have no choice but to use open conflict as a measure in order to raise awareness and promote changes in operational and institutional procedures, in this case with a focus on environmental as well as human rights, since conflict often leads to dialogue and negotiation (Orta-Martínez et al., 2018).

In Virunga National Park in the Democratic Republic of Congo, British oil company SOCO International used illegal concessions granted by the Congolese government to locate oil reserves in the national park (Andersen, 2018). In 2014, SOCO agreed to refrain from damaging practices in the region, as a response to a documentary that was made about the park revealing clandestine practices and biodiversity threats. However, in 2018, the Congolese government decided to revise the national park's borders making SOCO able to extract oil without the impediments of nature protection regulations (Andersen, 2018). This illustrates how institutions and the state can interfere with conservation efforts coming from the outside.

Several resource-rich countries are rethinking their economic structures. Although it could be political posturing, Saudi Arabia is also looking into abandoning its oil assets and making the transition towards renewable sources of energy by investing in solar energy infrastructure in order to be able to export electric power instead of fossil fuels, as committed in the COP21 (Woodthorpe-Evans in Sovacool & Scarpaci, 2016).

Chapter 2 – Energy Policy and Environmental Protection in the Yasuní National Park, Ecuador

This section explains the situation of the Yasuní National Park, thereby involving its cultural as well as biological diversity and the subsequent initiation of the Yasuní-ITT Initiative as a response to these cultural and biological conservation issues. Furthermore, it places the Initiative within the subject of energy policy and discusses the sustainability options within this sector as tapped into by the Initiative.

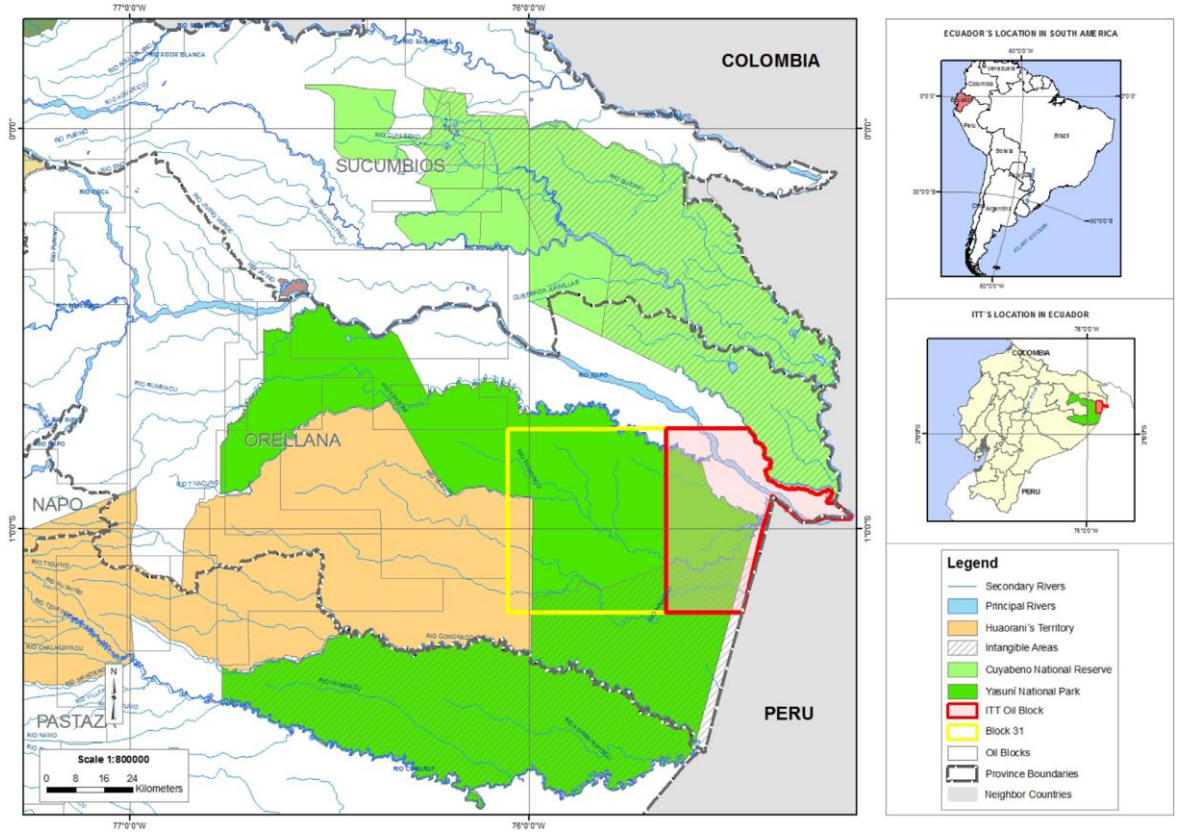

Figure 1: The Yasuní Natural Park and the ITT oil block, including the overlapping indigenous territories, neighbouring parks, and other oil blocks (Source: Pellegrini et al., 2014, p.285).

2.1 Yasuní National Park

Yasuní National Park is the largest natural park of Ecuador known for its extraordinary biodiversity as well as cultural diversity. It is located in the east of Ecuador and forms part of the Western Amazon (see Figure 2). The park, created in 1979, encompasses around 9,820 km^2 and includes a buffer zone of 10 km around the entire perimeter of the park, except for the east side, where the park borders with Peru (Albacete et al., 2004; Finer et al., 2009). Since 1989 the park is listed as a UNESCO Biosphere Reserve. As can be inferred from Figure 2, the park's location is quite unique because of the nearby intersecting of the Amazon, Andes mountains and the equator (Finer et al., 2010). Its unique location can also be seen as one of the causes of the biodiversity in the park.

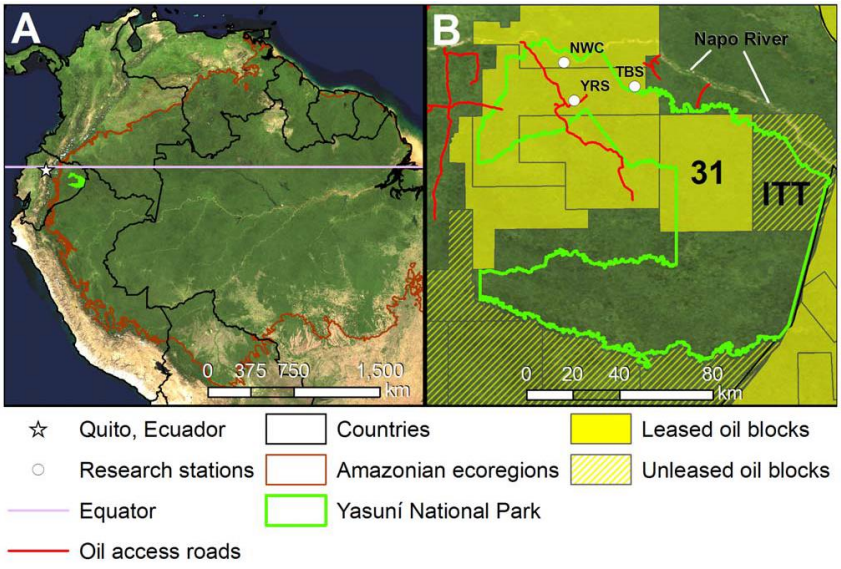

Figure 2: Ecuador's Yasuní National Park. A) Location of Yasuní National Park at the crossroads of the Amazon, Andes, and the Equator. B) Oil blocks and oil access roads within and surrounding the park. ITT = ITT oil block, NWC= Napo Wildlife Center, TBS = Tiputini Biodiversity Station, YRS = Yasuní Research Station. (Source: Bass et al., 2010, p. 1).

The western Amazon is known as one of the last wilderness areas on the planet with such high levels of biodiversity (Bass et al., 2010; Myers et al., 2000). It still includes a vast amount of intact forest, as well as an extraordinary richness in species. Furthermore, apart from ecological diversity, the park includes ancestral territory of the Waorani, and at least two indigenous tribes live in voluntary isolation inside the park (Bass et al., 2010; Espinosa, 2013; Espinosa-Landázuri & Mancera-Rodríguez, 2015; Larrea & Warnars, 2009; Rival, 2010).

However, the ecosystems within the region are being seriously threatened by a variety of practices, among which hydrocarbon exploitation, mining, illegal logging, palm oil plantations and large-scale transportation projects (Killeen, 2007). Within the park as well as its buffer zone, several of such large-scale development projects exist (Bass et al., 2010). In the northern half of the Yasuní National Park there are several petroleum projects, and there are at least four access roads going through the park and the buffer zone, as shown in figure 3B (Bass et al., 2010). Such access roads are known to have a variety of widespread consequences, such as colonization, deforestation, and fragmentation of the territory, as well as the hunting of large fauna and illegal logging (Bass et al., 2010; Suarez et al., 2010).

The existence of large untapped oil fields thus remains a significant threat to the Yasuní National Park, as illustrated in section 1.3 on the environmental impacts of oil exploitation. One of the largest oil fields lies beneath the ITT block, consisting of three oil fields Ishpingo, Tambococha and Tiputini, on the northeast side of the park (See Figure 1). The risk of the government re-auctioning this block for its oil reserves persists and these threats faced by Yasuní National Park are exemplary of the entire region (Bass et al., 2010).

Among others, Scientists Concerned for Yasuní National Park (SCYNP) have more than once stood up for the national park. In 2004, they directed a letter towards Lucio Gutiérrez, then President of the Republic of Ecuador, Luiz Inácio Lula da Silva, then President of the Federative Republic of Brazil, José Eduardo de Barros Dutra, then President and CEO of Petrobras, and both the Ecuadorian Minister of Mining and Energy and of Environment, among others, in which they expressed their concerns for the park, explaining its "extraordinary value in terms of its biodiversity, cultural heritage, and largely intact

wilderness." (SCYNP, 2004, p. 2). Such efforts by scientists as well as conservationists to save the park have managed to stop the construction of a new road by Petrobras in order to facilitate oil exploitation (Bass et al., 2010). In 2007, as a response to the strong opposition towards oil exploitation in the park, the Ecuadorian government introduced the Yasuní-ITT Initiative, which will be discussed in the following section.

2.2 The Yasuní-ITT Initiative

2.2.1 Goals and objectives

The Yasuní-ITT Initiative was introduced in 2007 under Rafael Correa, Ecuadorian President at the time, as a response to the persisting opposition to oil practices in the Yasuní National Park. The proposal promised to keep 920 million barrels of oil underground and thus unexploited (Bass et al., 2010; Coryat, 2015; Coryat & Lavinas Picq, 2016; Larrea & Warnars, 2009; Pellegrini et al., 2014; Vallejo et al.,2015). As such, the Yasuní-ITT Initiative was a proposal for a new model of development, striving towards the protection of life, peace and securing sustainable development (Fact Sheet Yasuní-ITT Trust Fund, n.d.). In exchange for leaving the oil in the soil, the Initiative sought international compensation of 3,6 billion U.S. dollars, an amount equal to half of what the country would have realized in revenue from exploiting the resources from oil block ITT (Espinosa, 2013; Sovacool & Scarpaci, 2016).

The everlasting suspension of oil extraction would take place in a specific part of Yasuní, namely the ITT oil block (see Figure 2B). This block, called Ishpingo-Tambococha-Tiputini (ITT), would thus be kept free of extractive practices in exchange for a compensation from the international community (Sovacool & Scarpaci, 2016). The Initiative aims to prevent releasing carbon reserves into the atmospheres, not only by the non-exploitation of oil reserves, but also through the development of programs of reforestation, forestation and natural forest recovery that would be financed by the contributions made to the Initiative (Fact Sheet Yasuní-ITT Trust Fund, n.d.). The Yasuní-ITT Initiative's main objectives include to (1) respect and protect indigenous territories, their livelihood and culture, 2) combat climate change through preventing to release large amounts of CO2 into the atmosphere, and (3) maintain biodiversity by ensuring protection of the flora and fauna in the park (Bass et al., 2010; Fact Sheet Yasuní-ITT Trust Fund, n.d.).

The Initiative coincided with the international Millennium Development Goals (MDGs) as signed internationally in 2000. The main goals that the Initiative tapped into were MDG 7 and MDG 8, as shown in Figure 3.

MDG 7 is directed towards ensuring environmental sustainability and consists of several targets (United Nations, n.d.):

A) Integrating the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources. Topics such as increasing afforestation and decreasing deforestation are important here.
B) Reducing biodiversity loss. This could be realized through the protection of ecosystems, such as in Yasuní National Park.
C) Increasing sustainable access to safe drinking water and basic sanitation, which is relevant for the indigenous peoples in Yasuní National Park and the health risks posed by oil pollution.
D) Improving the lives of slum dwellers, which is a topic irrelevant to this specific paper.

Figure 3: Official logos of the Millennium Development Goals (Source: United Nations. (n.d.a))

MDG 8 is directed towards establishing a global partnership for development, and also consists of a variety of different targets related to the development of an open, non-discriminatory trading and financial system, addressing the special needs of developing countries, dealing comprehensively with developing countries' debt issues, providing access to affordable essential drugs in developing countries and making new and innovative knowledge and technologies widely available (United Nations, n.d.).

However, as evaluated later, MDG 8 "perpetuated the "donor-recipient" paradigm, rather than calling for collective action at the multilateral level to achieve a stable global economic environment" (UN System Task Team on the Post-2015 UN Development Agenda, 2013, p. 5). In a way, the Yasuní-ITT Initiative was ahead of its time by tapping into this issue by addressing the international community for their shared responsibility in climate change. In fact, it corresponds more with at least three of the Sustainable Development Goals (SDGs) as developed in 2015 by the United Nations thereby replacing the previous MDGs, such as SDG 7 "Affordable and Clean Energy", SDG 13 "Climate Action" and SDG 15 "Life on Land" (see Figure 4).

Figure 4: Official logos of the Sustainable Development Goals (Source: United Nations. (n.d.b).)

Consequently, the Initiative had the opportunity to set an important example as a pioneer of global collaboration in worldwide issues such as climate change and conservation, thereby sharing the costs and benefits that come with natural conservation internationally (Pellegrini et al., 2014). As such, an underlying and more implicit goal of the project was to achieve a sense of joint responsibility from the international community, which is related to the existing debate between industrialized developed countries and developing countries on the responsibility for climate damage and change.

2.2.2 Trust Fund

Bearing in mind the thought of co-responsibility, Ecuador was looking for support from all directions for the Initiative: governments, foundations, the private sector, and even the public in general (Fact Sheet Yasuní-ITT Trust Fund, n.d.). The money as contributed by the international community would be admitted into a trust fund for conservation purposes as well as investments into renewable energy and social development in Ecuador (Larrea & Warnars, 2009; Sovacool & Scarpaci, 2016). As such, the Initiative strived for a transition towards a more sustainable economic model, which relates to the dilemma between ecologism and economism as discussed in section 1.2.

On the 3rd of August 2010, the Ecuadorian government created the Yasuní-ITT Trust Fund in conjunction with UNDP[2] (Fact Sheet Yasuní-ITT Trust Fund, n.d.). It was established to consist of two windows, a Capital Fund Window, and a Revenue Fund Window (Fact Sheet Yasuní-ITT Trust Fund, n.d.). The Capital Fund Window strives for the aforementioned total amount of contributions of 3.6 billion US dollars, with the purpose of financing projects concerned with renewable energy, such as hydro, geothermal, solar, wind, biomass, and tidal plants, which will be discussed in section 2.5 (Fact Sheet Yasuní-ITT Trust Fund, n.d.).

[2] United Nations Development Programme

The Revenue Fund Window was more focused on the transition of the Ecuadorian economy towards a more sustainable economic system. As such, the Revenue Fund Window was established to finance sustainable development programs. First and foremost, it was concerned with programmes preventing deforestation and ensuring the conservation of ecosystems. Adequate forest management with a focus on reforestation, afforestation and natural regeneration of forests was thus included on the agenda. Another aspect would include promoting social development in aspects such as health, education, training, and employment generation in sustainable practices like ecotourism, and agriculture. Furthermore, funds would be used to support research, science, technology, and innovation (Fact Sheet Yasuní-ITT Trust Fund, n.d.).

In exchange for donations, "Yasuní Guarantee Certificates" (YGCs) would be issued by the Ecuadorian government, legal obligations recognized by the Ecuador Assembly (Fact Sheet Yasuní-ITT Trust Fund, n.d.). These YGCs would serve as a guarantee that the ITT oil reserves would remain underground indefinitely and would have a value equal to the value of the contributions (Fact Sheet Yasuní-ITT Trust Fund, n.d.; Finer et al., 2010). As such, as stated in the Yasuní-ITT Trust Fund factsheet the YGCs are meant to reflect the amount of CO2 emissions avoided through the contributions to the programme. The YGCs are only made available to those who make a contribution of more than 50,000 US dollars. All contributions below this amount are considered donations and would not grant the right to a CGY. The CGYs are further characterized by not granting interest, nor having an expiration or maturity date, provided that the Ecuadorian government commits to the non-exploitation of the Yasuní-ITT oil block (Fact Sheet Yasuní-ITT Trust Fund, n.d.).

Nonetheless, critics state that these YGCs would actually function as offsets, which means that "for every single ton of greenhouse gas avoided or offset abroad by the Yasuní-ITT initiative, an investor is permitted to emit one more ton at home" (Sovacool & Scarpaci, 2016, p. 166). Consequently, there will not necessarily be a reduction in the total amount of greenhouse gas emissions, since it is possible that contributors would offset the emissions elsewhere (Sovacool & Scarpaci, 2016).

In its totality, the Yasuní-ITT Trust Fund was governed by 1) a Steering Committee, 2) a Technical Secretariat, 3) a Government Coordinating Entity, and (4) National Recipient and Implementing Organizations (MPTF UNDP, n.d.). The Steering Committee comprised of several representatives of the Government of Ecuador, contributing countries, civil society, and UNDP, with a total of six members. It was established to ensure contributors of the effective and transparent use of the contributed funds by overviewing its strategic direction, giving authorization over fund releases, and coordinating with other international initiatives. The Technical Secretariat was established to provide administrative, technical and substantive support to the Steering Committee, while the Government Coordinating Entity assumes accountability as well as responsibility on behalf of the government for the development, implementation and monitoring and evaluation of the fund portfolio (MPTF UNDP, n.d.). The next link in the chain would be the national Recipient and Implementing Organizations, which would prepare funding proposals and have them reviewed by the Technical Secretariat before getting approval from the Steering Committee (MPTF UNDP, n.d). Through this complete chain of events and practicalities, the Yasuní-ITT Trust Fund attempted to safeguard the Initiative's legitimacy and reliability towards potential contributors.

2.2.3 The Initiative's progress

In recent years, there has been an increase in debate among the Yasuní Biosphere Reserve. Finer et al (2009) attribute this increase in interest to a variety of factors, such as the recognition of Yasuní National Park as one of the most – if not the most – biodiverse place on earth, the increasing attention for the protection of indigenous peoples and their cultures, increased conflict due to the persistence of oil practices and illegal logging inside the park. Additionally, it can be attributed to the

globally growing awareness on conservation significance, as discussed in section 1.4. Furthermore, the Yasuní-ITT Initiative was highly promoted throughout the country since the beginning.

Undeniably, there are many reasons to be named in favour of the Initiative. A first reason would be the preservation and protection of the park's extraordinary biodiversity, in order to reverse the environmental impact that comes with oil exploitation, as discussed in section 1.3 (Espinosa, 2013; Espinosa-Landázuri & Mancera-Rodríguez, 2015; Sovacool & Scarpaci, 2016). Second, climate change is an important reason for initiatives like the Yasuní-ITT to be implemented, especially for cases of oil exploitation, since the exploitation of oil causes CO2 emissions, which contribute to global warming (see section 1.3) (Vallejo et al., 2015). As calculated by Sovacool and Scarpaci (2016), the realization of the Yasuní-ITT Initiative would have prevented 407 to 436 million tons of CO2 from being emitted into the atmosphere (pp. 165). Moreover, this calculation does not include other positive effects of the conservation and preservation of a forest such as Yasuní National Park, like carbon sequestration (Finer et al., 2010; Larrea, 2012; Sovacool & Scarpaci, 2016). A third important reason is the protection of indigenous peoples and their territories within the park, since extraction within indigenous territories leaves indigenous populations with irreversible consequences, which will be further discussed in section 2.4 (Vallejo et al., 2015). Above all, diverting extractive practices away from indigenous territories is beneficial to the compliance to indigenous rights and thus social inclusion (Vallejo et al., 2015). A fourth reason in favour of the Initiative would be that it was an attempt to steer away from an economy based on extractivism, which is especially positive in resource-rich developing countries such as Ecuador, as discussed in section 1.1 about extractivism and the resource curse many developing countries face (Acosta, 2009).

According to Sovacool and Scarpaci (2016), Ecuador would have generated significant economic as well as social benefits through the Initiative, even without the revenues that would otherwise have been earned from the ITT oil block. Furthermore, an economy based on oil revenues is not meant to last forever. Since oil reserves are limited, Ecuador would have to refrain from being an oil producer within thirty years, thereby making it necessary to prepare for a structural change in the country's economy (Rival, 2010). Additionally, many oil reserves in the park, and thus in the ITT block, are said to be of poor quality and difficult to retrieve, and the extraction would therefore produce less profit (Rival, 2010).

However, the Initiative faced a variety of challenges up until its cancellation in 2013, such as the financing of the Initiative, political pressure in favour of using oil revenues, and an overall national commitment to oil extraction (Marx, 2012; Pellegrini et al., 2014; Rival, 2010; Sovacool & Scarpaci, 2016). In 2013, the Initiative was cancelled by Rafael Correa, which revealed an important change of direction within the Ecuadorian government, as described in section 1.2. The focus shifted from conservation and protection of the environment towards a neo-extractivist approach based on the use of revenues from extractive practices to promote development (Coryat, 2015; Lalander & Merimaa, 2018). As discussed in the previous chapter, this corresponded with the regional trend of *gobiernos progresistas*. This persistence of extractive economies in Latin America can on the one hand be attributed to the global demand for raw materials, and on the other hand to the lack of alternative development strategies that can guarantee structural changes in society (Burchardt & Dietz, 2014).

A special commission was formed to evaluate the Initiative's progress. In July 2013, the economic results were deemed insufficient, leading Rafael Correa to dissolve the Initiative on August 15, 2013 (Coryat, 2015; Coryat & Lavinas Picq, 2016). It was mainly the international community that was blamed for a lack of financial support, and the aforementioned shift towards extractivism was posed not as a choice, but as a necessity, stating that the revenues from extractivism are essential for

Ecuadorian development (Coryat, 2015; Coryat & Lavinas Picq, 2016). These challenges and the reasoning behind its cancellation will be evaluated more elaborately in section 3.1.

2.3 Biodiversity conservation

Human influence puts a strain on the existence of many species and ecosystems (Mittermeier et al., 2003, p. 10309). Therefore, conservation should be primarily directed towards saving them. Most of the currently remaining wildernesses, however, are not particularly rich in species. As stated by Mittermeier et al. (2003), only 18% of plants and 10% of terrestrial vertebrates are endemic to individual wildernesses (p.10309). The Amazonia is one of these wildernesses with a majority of species, or biodiversity hotspot, together with Congo, New Guinea, the Miombo-Mopane woodlands and the North American deserts (see Figure 5). These five wilderness areas are thus important pillars in global conservation efforts. A wilderness area is defined by the IUCN as "a large area of unmodified or slightly modified land and/or sea, retaining its natural character and influence, which is protected and managed so as to preserve its natural condition'' (IUCN, 1994, p. 18).

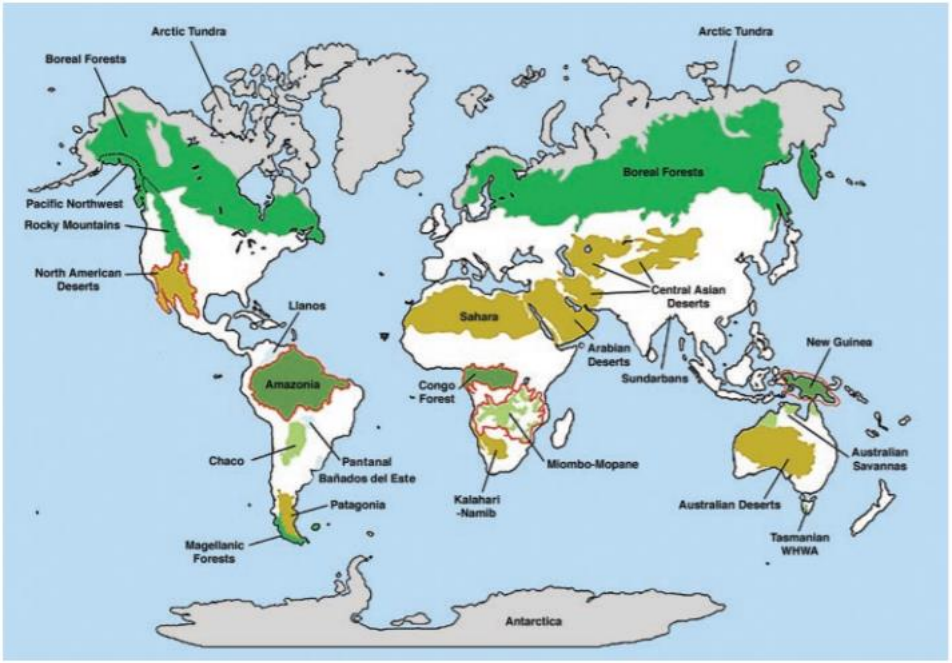

Figure 5: World map with wilderness areas, human population density less than or equal to five people per km2, and the five high-biodiversity wilderness areas outlined in red. (Mittermeier et al., 2003, p. 10310)

Since 1994, the national park accommodates two scientific research stations, the Yasuní Research Station, and the Tiputini Biodiversity Station. These two stations have helped significantly in revealing the park's biodiversity. For example, Yasuní National Park harbours 150 species of amphibians and 121 species of reptiles, making it the highest documented herpetofauna on the planet (Bass et al., 2010). Bass et al. (2010) also state that approximately 600 bird species and 200 mammal species have been documented in the park. The fact that the park knows more than 4000 plant species per 10,000 km2 further illustrates the extraordinary levels of biodiversity harboured by the Yasuní National Park that is incomparable with other regions (Barthlott et al., in Finer et al., 2009).

All these different types of species within the park makes for an impressive density of biodiversity. The amounts of species found in small areas is impressively large. The Tiputini Biodiversity Station on the northern border of the park holds world records for the richness in amphibian, reptile and bat species (Bass et al., 2010; Rex et al., 2008), the Yasuní Research Station inside the park holds the record for

highest number of tree species within one hectare (Bass et al., 2010) and Rivadeneira and English (2007) have documented at least 569 species of birds around the Napo Wildlife Center[3] Reserve area. Furthermore, Yasuní harbours a variety of species that are endemic to the region, such as amphibians, birds, and mammals, as well as several threatened species, including vertebrates, mammals, and plants (Bass et al., 2010; Finer et al., 2009).

There seems to be no clear explanation for the park's biodiversity. However, the climate (high rainfall, and continuously warm and wet conditions) along with the aforementioned unique location close to the Andes mountains as well as the equator, are probably all factors influencing biodiversity (Bass et al., 2010; Finer et al., 2009; Kreft et al., 2004; Pitman et al., 2002).

Bass et al. (2010) studied the global conservation significance of Yasuní National Park and state that is has the potential of sustaining its biodiversity in the long run. This is mostly due to the large wilderness area covered by the park, the wide variety of vertebrates, its protection status and the probability that the park will maintain its wet rainforest conditions in spite of the drought in the Amazon as caused by climate change (Bass et al., 2010). Furthermore, Bass et al. state that the park's conservation possibilities are being jeopardized by oil development, and therefore they make policy recommendations regarding putting a halt to further oil development and road construction within the park and its perimeter.

2.4 Protection of cultural diversity and the rights of indigenous communities

Apart from the environmental aspect, there is an aspect of human rights at play in the case of oil exploitation in Yasuní. Consequently, the protection of indigenous rights also played an important role in the development of the Yasuní-ITT Initiative, since the indigenous communities living in the park are affected by oil exploitation taking place in their territories.

There are several indigenous peoples living in the park (Espinosa, 2013; Espinosa-Landázuri & Mancera-Rodríguez, 2015). In fact, it is home to two indigenous tribes living in voluntary isolation inside the park, the Tagaeri and Taromenane (Espinosa, 2013; Larrea & Warnars, 2009; Rival, 2010). The Waorani, who are relatives to the Tagaeri and Taromenane, and only relatively recently have been contacted. Furthermore, the Waorani are known for, at times violently, protecting their territory (Beckerman, 2009; Finer et al., 2009).

In fact, the entire Yasuní Biosphere has historically been Waorani territory, thereby including Yasuní National Park as well as the Waorani Ethnic Reserve (Finer et al., 2009) and the Waorani make a living as hunter-gatherers as well as horticulturalists, thereby moving around as a seminomadic community in order to avoid the depletion of fauna and natural resources, as well as avoiding threats from other indigenous peoples (Lu, 2001). The Waorani have traditionally been subsistence hunters, but in relatively recent years have started to hunt for the market as well, on a small scale (Franzen, 2006).

Table 1 (Finer et al., 2009, pp. 4-5) shows an overview of events concerning the indigenous peoples in Yasuní and its surroundings from the early 1900s up until 2009 and illustrates the protective nature of the Waorani concerning their territory.

One of the objectives of the Yasuní-ITT Initiative was to respect and protect indigenous territories, as well as their livelihood and culture and as can be derived from Table 1 (Finer et al., 2009, pp. 4-5), there have been several cases of conflict between indigenous peoples and oil workers in the region.

[3] Napo Wildlife Center is an ecolodge within the Yasuní National Park, in collaboration with the local indigenous community.

One specific case that has given rise to great debate, was the class action suit that was filed against Texaco in 1993 in the U.S. and was moved to take place in Ecuador in 2003 (see Table 1). In this case, local residents as well as several indigenous groups accused Texaco of dumping toxic waste in local rivers and lakes between 1964 and 1992 (BBC News 2018; Finer et al., 2009). Furthermore, Texaco allegedly had left waste pits that continuously released toxins into the environment (Finer et al., 2009). Texaco was later incorporated by Chevron, who state that during the 1990s, Texaco has in fact done their duties in cleaning up in the region (BBC News, 2018). Moreover, according to Chevron, Texaco has signed an agreement in 1998 with the Ecuadorian government, thereby relieving them from any liability (BBC News, 2018). Chevron also stated that PetroEcuador, has responsibility, since it has taken over operations within the region since 1992 (Finer et al., 2009). In 2011, an Ecuadorian judge ruled that Chevron would be found guilty of causing environmental damage and ordered the company to pay $18.2 billion for extensive pollution (BBC News, 2014). In 2013, the amount was reduced to $9.5 billion by Ecuador's highest court. However, allegations of bribing and the use of corrupt means by the country's representation in the case of 2011 led for US district judge L. Kaplan to overturn Ecuador's win. Eventually, in 2018, the international tribunal in The Hague ruled in favour of Chevron in the environmental case between ChevronTexaco and the Ecuadorian government. History has thus not shown to be favourable of the struggles that local communities have with petroleum practices in their direct environment.

TABLE 1. CHRONOLOGY OF KEY EVENTS IN THE YASUNÍ REGION. [4]

DATE	Event
EARLY 1900S	First known accounts of Waorani spearing intruders on their territory
1940S	Shell Oil operates in Waorani territory
1942	Waorani attack Shell Oil station, killing two oil workers
1949	Waorani kill several Shell Oil workers in the field
1950	Shell Oil abandons Waorani territory
1956	Group of Waorani kill five American evangelical missionaries deep in Waorani territory
OCT 1958	Rachel Saint, with help from Dayuma, enters Waorani territory and establishes first peaceful contact with a Waorani territorial group
1958–1968	Members of contacted Waorani group live in Tihueno, a new settlement established by Saint
1968	Ecuador grants 'Protectorate' for relocated Waorani to evangelical missionary group SIL
1968–1972	Saint leads relocation efforts for the remaining three Waorani groups
1969	Deadly polio epidemic hits the Protectorate after arrival of third Waorani group
EARLY 1970S	Oil exploration resumes in areas recently vacated by relocated Waorani
1971	Tagaeri kill oil worker
1977	Tagaeri kill 3 oil workers
1979	Ecuador creates Yasuní National Park (YNP)
EARLY 1980S	Texaco constructs Auca road and first oil production sites in ancestral Waorani territory
1980S	Ecuador leases out oil blocks covering the northern section of Yasuní National Park
1983	Ecuador creates small Waorani reserve; first time land titled directly to the Waorani
1984	Tagaeri attack oil company canoe
1987	Tagaeri kill Capuchin missionary Alejandro Labaka attempting a peaceful contact
1989	UNESCO declares Yasuní National Park as a Man and the Biosphere Reserve
1990	Ecuador reduces size of Yasuní National Park in order to permit oil extraction
1992	Ecuador enlarges Yasuní National Park to current size and shape
1992	Ecuador creates the Waorani Ethnic Reserve
1992	PetroEcuador takes over Texaco oil operations
1992–1995	Maxus constructs new oil access road into Yasuní National Park and Waorani Reserve
1993	Group of Waorani kidnap, and later return, Tagaeri woman (Omatuki). Tagaeri attack Waorani on the return trip, killing Carlos Omene
1993	Class action suit filed in US against Texaco regarding their Ecuador oil operations
1996	Ecuador leases out Block 31 to Perez Companc
1999	Ecuador creates the Zona Intangible (ZI), but its borders not defined
2000	Occidental Petroleum begins construction of access road into buffer zone of YNP
2002	Petrobras purchases Block 31 from Perez Companc
2003	Group of Waorani men attack Taromenane house, killing at least 12
2003	Petrobras presents EIS for development of Block 31
2003	Class action suit against Texaco begins in Ecuador
2004	Scientists concerned for Yasuní issue unsolicited Technical Advisory Report for Block 31
APRIL 2005	Ecuadorians force Lucio Gutierrez from office, Alfredo Palacio assumes the Presidency
MAY 2005	Petrobras begins road construction in buffer zone of Yasuní National Park

[4] Adapted from Finer, M., Vijay, V., Ponce, F., Jenkins, C., & Kahn, T. (2009). Ecuador's Yasuni Biosphere Reserve: A brief modern history and conservation challenges. Environmental Research Letters, 4(3), pp. 4-5.

JULY 2005	Palacio administration blocks construction of Petrobras road into Yasuní National Park
JULY 2005	Waorani march on Quito in protest of Petrobras project in Block 31
SEPT 2005	ONHAE signs controversial usufruct agreement with American company Eco-Genesis
2005–2006	Over 15 illegal logging camps within Zona Intangible
APRIL 2006	Taromenane spear two loggers, killing one; rumours erupt of revenge killings by loggers
MAY 2006	Inter-American Commission on Human Rights issue Precautionary Measures
SEPT 2006	Petrobras releases new EIS for Block 31; drops plan for access road
SEPT 2006	Scientists Concerned for Yasuní respond to new EIS for Block 31
SEPT 2006	Government presents draft Zona Intangible decree to Waorani leaders in Coca
JAN 2007	Out-going President Palacio signs Decree delimiting the Zona Intangible
APRIL 2007	Ecuador announces initiative to craft national policy regarding uncontacted indigenous peoples
JUNE 2007	Ecuador officially launches ITT campaign
SEPT 2007	President Correa presents ITT Initiative at the UN
OCT 2007	Ecuador presents plan before IACHR for implementing Precautionary Measures
OCT 2007	Ecuador grants Petrobras environmental license for Block 31
DEC 2007	ITT Initiative promoted at Bali climate change meetings
FEB 2008	Taromenane attack logging camp within ZI; rumours again erupt of killings by loggers
MAR 2008	Taromenane kill illegal logger outside limits of the Zona Intangible
MAR 2008	Ecuador presents updated plan before IACHR for implementing Precautionary Measures
MAR 2008	Ecuador presents ITT Initiative at OPEC meetings
APRIL 2008	Ecuador establishes illegal logging control point on Shiripuno Bridge
SEPT 2008	Petrobras suddenly withdraws from Block 31; block returns to Ecuador
SEPT 2008	Ecuadorian voters approve new Constitution
OCT 2008	Ecuadorian court cancels ONHAE-Ecogenesis usufruct contract
OCT 2008	Ecuador announces ITT 'Yasuní Guarantee Certificates'
DEC 2008	Ecuadorian Environment Ministry warns Oil Ministry against proposed new oil exploration project near March 2008 lethal spearing site
FEB 2009	President Correa signs decree that indefinitely extends ITT Initiative deadline

Furthermore, as mentioned in section 1.3, apart from affecting indigenous territory, oil exploitation constitutes health risks for those communities that are living nearby exploitation sites. The Confederation of Indigenous Nationalities of Ecuador, CONAIE[5], is the largest indigenous organization in Ecuador. It was formed in 1986, as a result of the continuous battle of indigenous communities. Some of CONAIE's main objectives include bringing together the indigenous peoples and nationalities of Ecuador; fighting for the defence of indigenous territories and natural resources; strengthening intercultural and bilingual education; battling colonialism and neo-colonialism concerning transnational companies taking up practice in indigenous communities; strengthening indigenous identity and forms of social mobilization; promoting the collective rights of indigenous peoples and nationalities in Ecuador, as recognized by the country's Constitution; constructing an intercultural society, promoting participation, solidarity and equity, and establishing equality and justice for indigenous communities (CONAIE, 2015). As such, CONAIE consistently stands up for the rights of indigenous peoples, among other things.

The 2008 Ecuadorian Constitution, however, does recognize not only rights of nature, but also indigenous rights. In Article 57 of the Constitution (2008) several points are stated that recognize the rights of indigenous communities, peoples and nationalities, i.e. through maintaining possession over their territories, participation in practices concerning renewable natural resources in their lands, prior consultation about exploitation and commercialization practices of non-renewable resources in their territories, as well as the right not to be forcibly removed from their lands or territories. Furthermore, it states that indigenous peoples' management of biodiversity and their natural environment should be preserved (Gobierno del Ecuador, 2008). These discrepancies between the progressiveness of the Ecuadorian Constitution (2008) and the victory of oil companies in environmentally focussed lawsuits and historically present oppression of local communities, make for an incredibly complex issue.

[5] Confederación de Nacionalidades Indígenas del Ecuador

2.5 Energy policy and sustainability

An important topic that gives rise to concern in the area of energy policy is the persisting dependence on fossil fuels for energy generation, as discussed in section 1.1. This is not solely due to the environmental consequences related to the exploration and exploitation of fossil fuels. Moreover, this concern can also be attributed to the rising oil prices which are said to affect the political and economic stability of oil-producing countries (Medinaceli Monrroy, 2013).

Nevertheless, in order to achieve more sustainable economic and energy policies, a reduction in the consumption of energy is required, more specifically the energy coming from non-renewable resources such as oil and coal, since these resources are finite and environmentally harmful (Harrison & Boyd, 2018). Several sustainable energy alternatives are solar, wind, wave, and geo-thermal power. The research and development of such renewable energy sources was also an important pillar of the Yasuní-ITT Initiative (Sovacool & Scarpaci, 2016). Since the burning of all fossil fuel reserves the earth has to offer will irreversibly impact climate change and the environment, it is essential that at least part of the remaining reserves will be kept underground (Hansen et al., 2013). As such, these reserves of oil, gas and coal will become so-called stranded assets (Sovacool & Scarpaci, 2016).

In relation to sustainable energy policies, there are two seemingly simple options: first, the use of sustainable energy sources, and second improving efficient use of energy (Medinaceli Monrroy, 2013). As such, policy options are related to investing in the research and development of sustainable energy, such as bio-fuel and solar, wind, or geothermal power, as well as policies directly aimed at energy consumers in an attempt to change their behaviour.

Medinaceli Monrroy (2013) states that the transport sector is the largest consumer of petroleum and its derivatives. He also mentions that, however difficult in the short term, it should be possible to drastically reduce the oil consumption in this sector. This can for example be achieved through encouraging the use of sustainable energy sources in the mass transportation sector or through the elimination of subsidies for gasoline and diesel fuels (Medinaceli Monrroy, 2013). Le Calvez (2013) questions whether the dependence on oil generates either an obstacle or a stimulus to change global energy policy. He mentions that there is no “miracle solution” to facilitate a sustainable energy transition, since there is no single alternative that will be able to fully replace petroleum. A complete package of new measures would have to be created to realize such a transition, including compromises between different actors, i.e. states, civil societies, companies, research laboratories, etc.

Figure 6: Illustration of the global dependence on oil (Source: Vega, A. (2010, June 17).

Chapter 3 – The Yasuní-ITT Initiative and its failure

The following chapter first describes the methods that were used to carry out this research. Thereafter, the SWOT analysis is set out, preceded by a description of the underlying reasons for the failure and subsequent cancellation of the Initiative.

3.1 Methodology

3.1.1 Research character

This research uses a qualitative approach due to the relatively subjective character of the research topic. As such, this research attempts to provide an elaborate, detailed description of the case, thereby trying to place it in a wider context. Furthermore, this research can be classified as a case study since the development and subsequent cancellation Yasuní-ITT Initiative form the main topic of interest within the research. A combination of literature, media, conference visits and in-depth interviews were used to gather information and validate the research.

The literature review, as set out in the first two chapters, was not only directed towards literature about the Yasuní-ITT Initiative, but also towards related concepts such as extractivism and oil exploitation in- and outside of Ecuador, as well as the conservation of bio- and cultural diversity, and energy policy and sustainable energy sources. Furthermore, various media sources have been used to construct a vision of events leading up to the cancellation of the Yasuní-ITT Initiative, in addition to the processes of oil exploitation in the region.

Furthermore, semi-structured interviews were carried out, most of which took place during a field work stay in Ecuador. All interviews were semi-structured and directed towards examining the Yasuní-ITT Initiative, and related topics. More specifically, interviewees would be asked about their opinions on the failure of the Initiative and the underlying causes, as well as the strengths and weaknesses of the Initiative itself and the opportunities and threats it faced. On the other hand, attention was paid to topics such as international co-responsibility for climate change and the lack of economic support from the international community, sustainable alternatives to oil, as well as the rights of local communities in the park.

The majority of the interviews was carried out in a face-to-face setting. In some cases, circumstances made a face-to-face meeting impossible; these interviews have thus been carried out through the use of Skype. The list of interviewees consists of previous ministers, as well as stakeholders of the Initiative, politicians, scientists, and activists. Furthermore, many members of Ecuadorian civil society were open to share their opinions and experiences. Although such dialogues were not officially recorded for this research, it has been very useful for information gathering and contextualizing.

3.1.2 SWOT

Even though the origins of the SWOT analysis are uncertain, it is often traced back to either Learned et al. (1969), or to Albert Humphrey's SOFT Analysis (Clark, 2011; Ojala, 2017). It can be used to determine the strengths, weaknesses, opportunities, and threats for either a company, industry, product, or even an individual. In this case, the Yasuní-ITT Initiative is subjected to the SWOT analysis.

The SWOT analysis is known to be effective due to its simplicity as well as its capability to put focus on key issues (Pickton & Wright, 1998). It is shaped by the identification and representation of internal and external factors influencing the object of study (Ojala, 2017; Pickton & Wright, 1998). (Stacey, in Pickton & Wright, 1998) The SWOT analysis lists strengths and weaknesses through analysing resources and capabilities, from the inside, as well as the threats and opportunities as identified by its environment, i.e. from the outside. Apart from internal versus external, an important distinction is

made between positive and negative influences. These four factors can be put into a matrix (see Table 2).

Table 2	Positive	Negative
Internal	Strengths	Weaknesses
External	Opportunities	Threats

A simple representation of the SWOT analysis (Adapted from Ojala, M. (2017). Locating and creating SWOT analyses. Online Searcher, 41(1), p. 61)

The SWOT analysis can be useful in a variety of circumstances (Ojala, 2017, p. 60). Its simplicity can become the tool's downfall since it is often seen as nothing more but a list of factors. However, although the SWOT's output might be simplified, the process that leads to the output is often overlooked. The SWOT analysis has been chosen in this research because it is a useful tool to conceptualize research findings. As such, it can provide a well-arranged overview of all the internal as well as external forces driving the progress and eventual cancellation of the Initiative.

3.2 The failure of the Yasuní-ITT Initiative

As mentioned in section 2.2.3, in 2013 a special commission considered the economic results of the Initiative's progress insufficient, leading the Initiative to be cancelled by Rafael Correa on August 15, 2013. Lack of financial support from the international community was put forward as the most important reason for cancellation. Additionally, relying on extractivism was posed as a necessity, instead of a choice, because the revenues from extractivism would be indispensable for Ecuadorian development (Coryat, 2015; Coryat & Lavinas Picq, 2016). However, the answer to the question why the proposal had failed to obtain the desired effect, is in fact far more complex.

In section 2.2.3 of the previous chapter, reference is made to several of the challenges faced by the Initiative, that eventually would prove insurmountable (Marx, 2012; Pellegrini et al., 2014; Rival, 2010; Sovacool & Scarpaci, 2016). A variety of scholars has studied these challenges. For instance, Sovacool and Scarpaci (2016) state that gaining sufficient financing was one of the biggest hurdles of the Initiative. It was expected that the international community would donate large sums of money to fund the Initiative, e.g. countries such as Japan and the United States of America were each envisioned to contribute between 1 and 3 billion dollars. However, only 100,000 US dollars were raised during the first four months of the project (Larrea, 2012; Sovacool & Scarpaci, 2016; Swing, 2011).

"The proposal essentially asked the world: Who wants to pay for stranded assets? The deafening answer appears to be at the moment: 'nobody.'"
Sovacool & Scarpaci, 2016, p. 169

An underlying reason for this fairly disappointing outcome could have been the fear of setting a precedent for other developing countries with similar issues, who might decide to ask for contributions from developed countries under the same conditions (Marx, 2012; Le Quang, 2016). It was feared that by contributing to this proposal, donors would admit to the international co-responsibility for mitigating climate change, which would put them in a position that could become very costly (Marx, 2012). This will be further elaborated in section 3.3.4 on threats.

Additionally, the Correa administration continuously said to exploit the park if international compensation would prove insufficient (Pellegrini et al., 2014). From the beginning there were two alternatives, where B consisted of exploiting the park (C. Larrea, personal communication, July 17, 2019; P. Bermeo, personal communication, August 9, 2019; L. Warnars, personal communication, December 3, 2019; C. Valladares, personal communication, December 13, 2019). As put by Pedro

Bermeo, the failure of the Initiative started right in this moment where those two alternatives were formed (P. Bermeo, personal communication, August 9, 2019).

Carlos Larrea stated that these contribution shortfalls might also be due to international scepticism about the subject of climate change and the mitigation thereof (C. Larrea, personal communication, July 17, 2019). Along the same lines, the Initiative was ahead of its time and was therefore little understood, not only by the global community but also by Correa and his government (E. Pichilingue, personal communication, September 10, 2019).

Another challenge was national political pressure in favour of the exploitation of the reserves in the ITT oil block to generate the revenues much needed to finance social programmes (Sovacool & Scarpaci, 2016). The mentality about extractive practices had not changed (E. Pichilingue, personal communication, September 10, 2019). This further relates to the fact that the Ecuadorian economy was, and is, highly dependent of the exportation of primary resources (A. Acosta, personal communication, July 8, 2019). In order to make the Initiative succeed, the productive matrix had to change in order to limit dependence on the exploitation and exportation of oil (M. le Quang, personal communication, July 18, 2019). Furthermore, there was a lot of pressure and lobbying from the oil industry (A. Acosta, personal communication, July 8, 2019; M. le Quang, personal communication, July 18, 2019; E. Pichilingue, personal communication, September 10, 2019; F. Falconí, personal communication, July 29, 2019), which made it harder for the Initiative to take root.

As mentioned in section 2.2.2 about the Yasuní-ITT Trust Fund, the contributions would be put in a fund to finance social development in the country, among other things. Nonetheless, this fund seemed rather uncertain and long-term directed, whereas exploitation would generate immediate, short-term, revenues (Sovacool & Scarpaci, 2016). This short-term incentive appeared to be hard to resist for the Ecuadorian government, thereby overlooking the damages being done, as well as the limitedness of the reserves and poor quality of the oil in the ITT block (Rival, 2010).

This tendency towards exploitation can also be explained by the persisting national commitment to oil development (Sovacool & Scarpaci, 2016). Since the Yasuní-ITT Initiative was exclusively directed towards the protection of the Yasuní National Park, and, more specifically, oil block ITT, the Initiative had no effect on the exploration and exploitation of oil elsewhere in the country. Ecuador has a long history as an oil producer; modern oil exploitation can be dated back to 1878, but even before that time the country has known oil practices (Peláez-Samaniego et al., 2007). Although the Initiative was innovative and did manage to raise awareness for the topic, it was unable to involve the pollution, deforestation, and destruction of habitats in other parts of the country (Sovacool & Scarpaci, 2016).

3.3 SWOT analysis of the Yasuní-ITT Initiative

3.3.1 Strengths

First of all, the idea of the Initiative in itself is very strong. According to Alberto Acosta, the Initiative raised an idea that breaks with traditional systems (A. Acosta, personal communication, July 8, 2019) and Lavinia Warnars called the idea very progressive, especially coming from a developing country (L. Warnars, personal communication, December 3, 2019). Furthermore, the mechanism that was created, the trust fund administered by the UN, played an important role in gaining the trust of potential contributors. Irrespective of the legal or economic terms that were put in place, the mechanism itself had great potential (C. Valladares, personal communication, December 13, 2019).

The proposal pioneered as a public policy directed towards leaving fossil fuels underground (L. Warnars, personal communication, December 3, 2019; C. Valladares, personal communication, December 13, 2019; F. Falconí, personal communication, July 29, 2019). In fact, the Initiative was the

first in the world to recognize the necessity of restricting the supply (C. Larrea, personal communication, July 17, 2019). Carlos Larrea also sees it as the only way to make the policy of not extracting fossil fuels in places of high biodiversity feasible in developing countries. This is in fact illustrated by the lack of public policies in this direction. This unique and innovative message that the Initiative had, namely to be the first in the world to say that we have to keep the oil underground as a way of preventing greenhouse gases, is what made it so strong (P. Bermeo, personal communication, August 9, 2019). The proposal thus challenged the status quo of extractivism in the world.

The leading reasons behind the proposal include the protection of people in voluntary isolation as well as the park's extraordinary biodiversity. As a result, the idea has great ethical value and is in line with the rights of nature (A. Acosta, personal communication, July 8, 2019). Lavinia Warnars also describes the park's biodiversity and the fact that there are two indigenous peoples living in voluntary isolation in the park as strengths for the Initiative, because these two characteristics immediately show the conservation importance of the park (L. Warnars, personal communication, December 3, 2019). Since it will be impossible to extract all the remaining reserves, the question is where the oil should be kept underground (F. Falconí, personal communication, July 29, 2019). Consequently, the initiative placed the subject of conservation as a priority in these places of high biodiversity.

Furthermore, the Yasuní-ITT was very holistic (L. Warnars, personal communication, December 3, 2019). The proposal was so exhaustive because it looked at non-exploitation, deforestation as well as sustainability as a whole. The idea was not solely applicable to one region, but it could be directed towards the sustainable development of the country in general. Consequently, the idea had the ability to speak to sustainable development throughout the world (L. Warnars, personal communication, December 3, 2019).

Another characteristic that is often named as a strength is the origin of the idea. The idea is often said to have emerged from within civil society (A. Acosta, personal communication, July 8, 2019). Carolina Valladares also articulates that the proposal started from the grassroots in Ecuador and that it can hence be seen as an icon of how these ideas can be moving around society, until they finally end up convincing a government that it is in fact feasible (C. Valladares, personal communication, December 13, 2019). Matthieu le Quang questions this characteristic, because it is more complicated than this romanticized view that the idea emerged from within Ecuadorian civil society (M. le Quang, personal communication, July 18, 2019). He notes that in a way it did emerge from civil society, but it actually came from 'high' civil society and Acción Ecológica[6], which is an interesting connotation. Nevertheless, Ecuador has considerable experience with the problems that come with oil extraction, including many forms of social mobilization and indigenous mobilization; according to Carolina Valladares, this did not emerge in Ecuador by coincidence (C. Valladares, personal communication, December 13, 2019). The debate about oil and development in Ecuador is fairly strong.

Even though the proposal has not materialized, there are lots of learnings to be taken from the process on how a similar initiative could be made stronger. These ideas can still be used to push for leaving fossil fuels underground in at least two thirds of the reserves, in the attempts to stay below the maximum temperature increase as defined in the Paris Agreement (C. Valladares, personal communication, December 13, 2019). As mentioned before, the proposal provided the opportunity to develop a new sustainable development model for Ecuador, and possibly for other that are in a similar position (L. Warnars, personal communication, December 3, 2019).

[6] One of Ecuador's largest and most well-known environmental organizations

Additionally, the Initiative opened the world up to the debate around leaving fossil fuels underground, as well as the international co-responsibility for climate change (C. Valladares, personal communication, December 13, 2019). The Initiative made Ecuador more visible throughout the world. At a certain point, the whole world was talking about the Initiative (M. le Quang, personal communication, July 18, 2019). It showed the world that oil dependent countries still try to find a solution to these societal and environmental problems, thereby paying attention to the differentiated roles needed from the industrialized countries.

3.3.2 Weaknesses

A first important weakness which lies at the core of a variety of other issues, was the lack of a long-term political strategy (A. Acosta, personal communication, July 8, 2019; M. le Quang, personal communication, July 18, 2019). Consequently, the Ecuadorian government did not have a clear view of how the Initiative should progress (E. Pichilingue, personal communication, September 10, 2019). In a way, they got ahead of the plan that was set up and it was too early in the process to be made public. If the proposal would have been defined in detail, it might have been more successful (L. Warnars, personal communication, December 3, 2019).

Additionally, the government did not to have enough institutions to fully materialize the proposal (F. de Castro, personal communication, January 20, 2019). Furthermore, the support mechanisms were not clearly set out. In other words, it was not clear to potential contributors how the project was going to be supported, how their contributions would be used. The Ecuadorian government was unable to provide a sufficiently transparent guarantee that the money would not be used in a manner contrary to what it was contributed for (E. Pichilingue, personal communication, September 10, 2019). Even though the trust fund would be administered by the UN, which could have increased potential contributors' trust, there was no detailed financial plan, which damaged the proposal's legitimacy and integrity.

The previous section mentions the fact that the Initiative became known globally as a strength, but this can actually turn into a weakness as well, since you're not directing it to anyone in particular (M. le Quang, personal communication, July 18, 2019). This, together with the fact that Ecuador is a geopolitical "dwarf", undermined the Initiatives potential (M. le Quang, personal communication, July 18, 2019). Furthermore, the proposal was designed to appeal mostly to state governments, although it could have been a good idea not to keep something like this as a business among countries, but to include civil society from all around the world (C. Valladares, personal communication, December 13, 2019; P. Bermeo, personal communication, August 9, 2019).

One of the objectives of the Initiative was directed towards the protection of people in voluntary isolation, which can be seen as an important strength. However, indigenous inclusion during the realization of the proposal was less than satisfactory. The indigenous peoples and nations were left on the side-lines, instead to be included in the decision-making process (E. Pichilingue personal communication, September 10, 2019). Indigenous peoples should have been more involved in the proposal's design. These peoples have a very valuable vision about the Yasuní and their territories, but also on forest conservation in general. More importantly, when deciding on a region where indigenous peoples live, they need to be involved (L. Warnars, personal communication, December 3, 2019). Obviously, this does not apply to the non-contacted people in the park. Their territories should be protected either way since they cannot be consulted about it.

"*If you respect the rights of non-contacted people, you shouldn't be talking about exploiting their territories in the first place*."

C. Valladares (personal communication, December 13, 2019)

Furthermore, the initial initiative, as developed from the bottom-up, was not conditioned to money (C. Valladares, personal communication, December 13, 2019). The original idea was not about keeping the oil underground, under the condition that a certain amount of money would be received. In fact, it was directed towards a commitment to keeping this oil underground, because of the values of biodiversity, indigenous rights of non-contacted people, etc. (C. Valladares, personal communication, December 13, 2019). Because it was conditioned to money, the mechanism could be seen as some sort of extortion. Nevertheless, this is much more complicated for an oil dependent country because Ecuador would need revenues in order to trade off the sacrificed oil revenues.

The only body that was involved in promoting the Initiative nationally was the government (M. le Quang, personal communication, July 18, 2019). Veritably, the Initiative depended mainly on one person: The President (C. Larrea, personal communication, July 17, 2019), which is a weakness in itself, but Correa's mismanagement of the Initiative further weakened this already feeble characteristic. President Correa's character and discourse are often named as important factors weakening the Initiative. For example, his instability and inconsistency undermined the proposal's legitimacy (P. Bermeo, personal communication, August 9, 2019). During his government block 31 in the park was already being exploited, even though it is not allowed to be according to the constitution, which actually prohibits exploitation in protected areas (P. Bermeo, personal communication, August 9, 2019). This also caused the initiative to lose legitimacy. More importantly, he seemed intent on using the Initiative to make a name for himself internationally and to present his government as a 'green government' (L. Warnars, personal communication, December 3, 2019).

Lastly, as mentioned in section 3.3, the government lacked a long-term commitment to the Initiative. The fact that the Correa administration continuously threatened to exploit the park if the international community would not come through with sufficient contributions, clearly damaged the proposal's authenticity. This, together with Correa's incoherent discourse, revealed the existence of the two alternatives (C. Larrea, personal communication, July 17, 2019; P. Bermeo, personal communication, August 9, 2019; L. Warnars, personal communication, December 3, 2019; C. Valladares, personal communication, December 13, 2019). The plan A was to stop extractivism in order to not emit a certain amount of greenhouse gases, whereas plan B always included the possibility of exploiting the park (P. Bermeo, personal communication, August 9, 2019).

3.3.3 Opportunities

During the development of the Initiative attention has been paid to the opportunities towards which the proposal should be directed. Consequently, the Initiative's objectives were established, i.e. biodiversity conservation, human rights protection, and avoiding CO2 emissions by leaving oil underground in certain parts, which are also subject to global debate. As such, the initiative had the opportunity to consolidate the need of leaving a large part of the crude oil underground (A. Acosta, personal communication, July 8, 2019). Moreover, the ideas of the Initiative had much future because they represented the necessity to reach the goals from the Paris agreement (C. Larrea, personal communication, July 17, 2019).

First of all, in order for a project like the Yasuní-ITT to be effective, all sets of factors have to be aligned at the same time, which was the case during the implementation of the proposal. The fact that the government was so popular at the time, provided great opportunity for such a project to be developed.

Years after the cancellation of the Initiative, there is still debate about the extraction of oil in the ITT region (C. Larrea, personal communication, July 17, 2019). This shows that the Initiative has in fact been successful in seizing the opportunity of putting oil extraction in national debate. Furthermore, the Initiative leaves a great lesson for countries that could replicate this idea (F. Falconí, personal communication, July 29, 2019). In fact, the Yasuní ITT mechanism triggered not only international debate, but also action in some cases. For example, in the Virunga National Park in the Democratic Republic of Congo a similar project was being developed (C. Valladares, personal communication, December 13, 2019).

The increasing global concern about climate change provided ground for the Initiative. New generations are growing up to be much greener than previous ones (E. Pichilingue, personal communication, September 10, 2019). Another opportunity was to use sustainability as a marketing strategy; it could strengthen a country's position in sustainable development (L. Warnars, personal communication, December 3, 2019). Throughout the progress of the Initiative it became clear that the Correa administration used this Initiative to position themselves as a green government.

In the future, initiatives like this will be of major importance, because the world is going to have to leave oil underground (F. Falconí, personal communication, July 29, 2019). It will be impossible to exploit all the existing reserves; hence the question is where to leave the oil underground. The Initiative actually provided a logic answer, namely, to start in regions of high bio-, or cultural diversity. The Initiative was also about to be materialized in the Copenhagen climate summit in 2009, but the summit turned out to be a failure, which was a missed opportunity for the Initiative. (C. Valladares, personal communication, December 13, 2019).

To successfully implement such a proposal, the agriculture, the peasants, and indigenous people in the region should be supported, because that is what sustains the food consumption in the country. Furthermore, small-scale ecotourism provides an opportunity for the interpretation and implementation of such projects (C. Valladares, personal communication, December 13, 2019).

Nevertheless, sustainable energy policy is not only interesting from an environmental perspective, but one can also look at it more pragmatically (L. Warnars, personal communication, December 3, 2019). Oil has a single-use character, so the related financial gains are also of temporary nature, whereas sustainable energy sources are more long-term and reusable. It might thus be interesting to investigate sustainable alternatives from a financial perspective.

Much opportunity still lies with the indigenous organization and ecologists. This was an initiative that emerged through these people. Consequently, the demand to not extract this area will persist from their side (C. Valladares, personal communication, December 13, 2019).

3.3.4 Threats

As one might expect, there were groups opposed to the idea, considering it negative for the country's interest and stating that Ecuador was not in a position to 'sacrifice' so much money (A. Acosta, personal communication, July 8, 2019).

Although nationally the timing seemed right, the existing financial crisis posed a threat to the materialization of the Initiative, mostly because a financial crisis is not a fruitful environment when asking for donations. Furthermore, the failure of the Copenhagen climate summit undermining the need for climate change mitigation posed another unfavourable circumstance (C. Larrea, personal communication, July 17, 2019; C. Valladares, personal communication, December 13, 2019).

Generally, the international political climate was not very open to negotiation. Keeping oil reserves underground is a topic that includes lots of geopolitics and big interests (C. Valladares, personal communication, December 13, 2019). This problem cannot be addressed within the current economic and political model, a model of infinite accumulation (E. Pichilingue, personal communication, September 10, 2019). Furthermore, politicians in the USA, China and some European countries were denying climate change (F. Falconí, personal communication, July 29, 2019). Simply put, the world was not ready for such a progressive proposal.

Moreover, the consumerism related to capitalism, keeps on feeding the oil boom (L. Warnars, personal communication, December 3, 2019). Consequently, the demand for oil persists and the countries that have already reached that certain level of wellbeing and equality are still consuming and asking more from southern countries (C. Valladares, personal communication, December 13, 2019). The problem lies not only in the south, since the demand for oil is mainly to serve the north (F. de Castro, personal communication, January 20, 2019). The oil sector is so globally intertwined, if something happens in some oil producing countries, the demand for oil will increase in the other (L. Warnars, personal communication, December 3, 2019). As such, petroleum sector is very sensitive to external influences.

The growth rhythm of the global economy is thus an important factor. Everybody wants to grow, so there is a constant need for everlasting production. Consequently, it is a challenge for the contestation to grow strong enough within society in order for the global economy to change. To make a real change, a complete restart of all energy development models would be needed. Clearly, that is quite difficult to realize, because it requires the whole structure of society to change (F. de Castro, personal communication, January 20, 2019). To achieve this, there are many problems at a more basic level that need to be solved first, like inequality, justice etc.

Sustainable energy is often named as an alternative to oil development. However, to ensure the development of sustainable energy alternatives, like wind, geo, hydro, and solar energy, many external investments will be needed (L. Warnars, personal communication, December 3, 2019). This generates another type of dependence, not on oil revenues, but on outside investment of capital and knowledge.

Obviously, there was also pressure from the powerful petroleum sector. The industry was concerned that this would trigger the development of similar projects in other regions (A. Acosta, personal communication, July 8, 2019; C. Valladares, personal communication, December 13, 2019). The power of the extractivist sector has clearly defined the direction for extractivism in Ecuador (P. Bermeo, personal communication, August 9, 2019).

This fear of reproducibility not only applied to the petroleum sector, but also to potential contributors. This can not only be attributed to the financial compensation they would be expected to pay to similar cases, but also to the consequences this would have for national oil companies worldwide. If this public policy were to be replicated in other places, oil companies from all over the world would have problems continuing their practices, and many developed countries also rely on revenues from these companies (C. Valladares, personal communication, December 13, 2019). The case of Norway is exemplary here. Norway did not contribute to the fund, even though it is a very wealthy country, but their income is also reliant on oil revenues. It is however difficult to define the reasons why they did not contribute. Perhaps they were sceptical, or afraid of the financial and economic consequences.

A more specific threat were the elections in Germany (C. Larrea, personal communication, July 17, 2019). In 2008, during the negotiations for the Initiative, five political parties were affiliated in the German Bundestag[7], including social-democrats, conservative Christian democrats, liberals, lefts, and

[7] The German federal parliament

greens. This provided a favourable political environment for negotiations on the Yasuní-ITT Initiative. Consequently, five parties voted in favour of the Initiative. However, the 2009 elections brought forth a centre-right coalition, which imperilled the potential German contribution, together with Rafael Correa's insulting discourse[8]. The right-wing governments are growing, together with the discourse denying climate change. The power is currently not on the left side, but on the right side, which makes it hard for an Initiative like the Yasuní-ITT to materialize (F. de Castro, personal communication, January 20, 2019).

Even though the Yasuní-ITT Trust Fund in itself could have been a strength of the Initiative, provided it had been extensively developed, international scepticism can be seen as an important threat. Countries were not only sceptic about climate change in general, but also about contributing. They were looking for a guarantee that their money would actually help instead of lining the pockets of a government (C. Valladares, personal communication, December 13, 2019). This scepticism is related to known cases of corruption throughout Latin-America. Much is lost in corruption, in wrongly managed or wrongly administrated policies (C. Valladares, personal communication, December 13, 2019). Latin-American institutions are often corrupted and taken over by governments (F. de Castro, personal communication, January 20, 2019).

3.3 International co-responsibility

In topics like this, co-responsibility is one of the key issues (F. de Castro, personal communication, January 20, 2019). Every country on the planet, every human being, is responsible of protecting the earth. However, this responsibility is not the same for every actor. There are countries, social conglomerates, societies, people, who have a larger responsibility to the extent that they have been the biggest contributors to the environmental damages (A. Acosta, personal communication, July 8, 2019). As such, co-responsibility is a shared responsibility, but differentiated (M. le Quang, personal communication, July 18, 2019). The conditions in the Yasuní-ITT proposal should have been created to pressure the international community to assume this differentiated responsibility (A. Acosta, personal communication, July 8, 2019).

We are all responsible for the environment, but sovereignty is also important. In a way, Ecuador has the responsibility to protect Yasuní. For example, Brazilian President Bolsonaro is very clear about the sovereignty they have on their territory and that the western countries do not have a say in it. There is a point to what he is saying, although it is slightly extreme, since this territory are the earth's lungs, and thus a global responsibility (L. Warnars, personal communication, December 3, 2019). Protecting the biodiversity in Yasuní, is actually a demand for the global need as well (F. de Castro, personal communication, January 20, 2019). As such, the international community does have the responsibility to help finance such projects, because it is such an important territory. How it is handled and how these finances are used, should however be mostly in the hands of the country itself, in order to give them sovereignty over their territories (L. Warnars, personal communication, December 3, 2019).

An initiative like the Yasuní-ITT can only be successful to the extent that it receives the support from these other countries (E. Pichilingue, personal communication, September 11, 2019). Ecuador was assuming part of their responsibility by deciding to forfeit earning certain amount of money, but they need help in covering the co-responsibility. (E. Pichilingue, personal communication, September 11, 2019)

[8] Correa insulted Germany by saying that "they can change their money into cents and put it on their ears" ("meterse sus centavitos en las orejas"), while they were willing to donate (C. Larrea, personal communication, July 17, 2019; C. Valladares, personal communication, December 13, 2019)

3.4 Consequences and possibilities for the future of the park

Defining the consequences of the failure of the initiative is not easy. For example, since the biodiversity in the park is incomparable, it is hard to establish the level of impact of biodiversity loss in the region (PB). The most direct consequences of the failure of the Initiative, however, include the opening of new roads, the influx of personnel and machinery, and helicopters flying over, all related to oil extraction. The environmental impact can be seen through satellite images (E. Pichilingue, personal communication, September 11, 2019). One clear consequence is thus that the block 43 is starting to get extracted, even though the constitution does not allow this area to be exploited due to the presence of uncontacted people (C. Valladares, personal communication, December 13, 2019). However, Correa managed to get the assembly to declare the national interest to exploit the block 31 and the block 43 (C. Valladares, personal communication, December 13, 2019).

These practices are producing lots of movement which is abnormal for the isolated indigenous peoples (E. Pichilingue, personal communication, September 11, 2019). Furthermore, their territories are being destroyed little by little, which has cornered these tribes into the intangible zone, which is the only place that stays relatively intact, apart from logging impacts (P. Bermeo, personal communication, August 9, 2019). Furthermore, the possibility is always present that this will produce serious conflicts, as described in section 2.4, possibly resulting in the death of isolated indigenous people (E. Pichilingue, personal communication, September 11, 2019).

Generally, the oil industry has many consequences, as discussed in section 1.3, i.e. oil pollution, social issues, health risks, human migration, social restructuration, soil pollution, air pollution, biodiversity loss and human rights violations. The regions where oil exploitation takes place form the epicentre, but the problem can come to the cities as well through environmental refugees, who cannot live of nature or agriculture anymore due to the impact of exploitation and are thus fleeing to the cities (F. de Castro, personal communication, January 20, 2019).

After the Correa administration cancelled the Initiative, a wave of protest erupted throughout the country. Furthermore, the YASunidos collective emerged to defend the Initiative after its cancellation (A. Acosta, personal communication, July 8, 2019; C. Larrea, personal communication, July 17, 2019; C. Valladares, personal communication, December 13, 2019). The protests were mostly urban, and youth led. For many years, the government had been raising awareness on the local as well as global importance of protecting the national park. As such, these people have been taught the importance of preventing extraction, and now the Initiative is being cancelled, which explains the wave of protest. This further shows that the initiative managed to raise awareness on the topic, which is a positive consequence.

Correa opened the door to extractivism, and his successor Lenin Moreno continued. The economic situation was distressing when Moreno took office, because during the oil boom Correa spent a lot of money in infrastructure and other projects that would give him popularity and legitimacy. At some point, the oil boom ended, and Ecuador started preselling oil to China, which resulted in a large debt (C. Valladares, personal communication, December 13, 2019). These economic problems made it possible for the government to justify the need for exploitation. The Moreno administration is going further than Correa's government did. They are now looking to exploit the Ishpingo oil field, which in fact overlaps with the Intangible Zone, signing a new decree that allows oil platforms to be constructed within the Intangible Zone's buffer area.

Although the Initiative failed to stop the exploitation of oil in the park, it did manage to get large part of Ecuadorian society committed to the Yasuní, to the Amazon (A. Acosta, personal communication, July 8, 2019). Furthermore, it leaves an important lesson for countries that are looking to replicate this

idea (F. Falconí, personal communication, July 29, 2019). It could have set an important example for the world, had it been successful (P. Bermeo, personal communication, August 9, 2019).

Conclusion

This paper attempts to provide an explanation why the Yasuní-ITT Initiative failed by evaluating direct causes, as well as the strengths, weaknesses, opportunities, and threats as discussed in chapter 3. Evidently, given that the Initiative did not materialize in the end, the many strengths and opportunities were eventually outweighed by the weaknesses and threats. However, combining the results with existing literature, several lessons can be drawn from the design and development of the Yasuní-ITT Initiative providing opportunities for future policies in this direction.

International co-responsibility for climate change, as tapped into by the Initiative, remains an increasingly important and topical issue. Through international climate conferences such as the COP15 and COP21 as referred to in chapters 1 and 3, international co-responsibility is actually being addressed. As can be derived from section 3.4, it is generally agreed upon that there exists some kind of international co-responsibility. However, how to incorporate this co-responsibility in policymaking remains subject to debate. The fact that Ecuador assumed their share in responsibility is creditable. However, they needed the international community to assume their share as well. Noticeably, the international response in terms of financial contributions was lower than anticipated and was put forward as one of the main factors leading up to the cancellation of the Initiative.

However, the response to the question as to why the international community did not seem intent on paying for these stranded assets is rather complex and can be traced back to the actual process of design and implementation of the Initiative, as became apparent throughout the analysis of the results. Indeed, achieving sufficient financing proved to be one of the biggest hurdles for the Initiative and the ruling of the special commission considering the economic results of the Initiative's progress to be insufficient can be considered the most immediate cause of the Initiative's cancellation. However, underlying this decision lies a variety of less directly visible reasons, such as the fear of setting a precedent among possible donors, together with international scepticism about the subject of climate change and the mitigation thereof.

Another way in which the Ecuadorian government attempted to justify the cancellation of the Initiative in 2013 was to pose the continuous reliance on extractivism as a necessity, since the revenues from extractivism would be indispensable for Ecuadorian development. The Ecuadorian economy in general is very much dependent on exportation. Ecuadorian exports comprise of oil mainly, but other export products such as shrimp, bananas, flowers lock the country into extractivism as well, with devastating consequences. Oil exploitation causes disruption, deforestation, forest degradation, water pollution, soil pollution, carbon emissions, as discussed in the first chapter, but shrimp farming and flower production can cause environmental damages through mangrove destruction and the use of pesticides. All economic activities that are practiced on such a large scale in a dependence relationship are likely to cause problems.

Subsequently, in order to mitigate climate change, in the near future it will be necessary to refrain from extracting at least part of the remaining oil reserves. The question is thus where the oil should be kept underground, which is what the Initiative subconsciously tapped into. Protecting the biodiversity in Yasuní is in fact a demand for the global need. As such, the initiative placed the subject of conservation as a priority in these places of high biodiversity, which is an important lesson to be taken from the Initiative (see section 3.3.1). The Yasuní-ITT in fact pioneered as a public policy directed towards leaving fossil fuels underground.

Following the thought of co-responsibility, the Initiative was designed to seek support from all sectors of the international community. Throughout the deployment of the Initiative, however, communication and promotion appeared to be mostly directed towards governments and politicians, even though it was in essence designed to draw the attention of international civil society as well, which could have benefited the Initiative's progress.

There were however some ambiguities that emerged while analysing the results. Some strengths and opportunities were rapidly refuted by weaknesses and threats. The Initiative raised an idea that breaks with traditional systems, and the fact that it challenged the extractive status quo in the world generated an important ideological strength. On the other hand, the idea faced international scepticism precisely due to its innovative character, since society was not prepared and the issue could not be addressed within the current economic and political model, thus seeking a substantial break with the traditional systems in place.

Another equivocal example is the established trust fund, which in essence could have been a strong and helpful factor in gaining the trust of potential contributors. However, the support mechanisms were not sufficiently defined, and there was no detailed financial plan concerning the use of the monetary contributions. This in turn hampered the process of gaining contributors' trust, because the Ecuadorian government did not provide a clear guarantee of how the money would in fact be used. The absence of a detailed plan can in fact be attributed to the inadequate formulation of the proposal, which is a persisting issue that can repeatedly be related to the Initiative. The trust fund did not only cause ambiguity among potential contributors, but also posed a dilemma for the Correa administration. The trust fund was destined to be used for conservation, as well as investments in renewable energy sources and social development, thus with a long-term focus, whereas the exploitation of the ITT oil fields, would generate more immediate, short-term, revenues. Furthermore, the region was experiencing an oil boom, and oil booms are in its very essence defined to be short-term. During an oil boom, Ecuador would obtain a great influx of money, but oftentimes, once the oil boom would end, the country would not have been building up a durable and long-term system.

Apart from the dichotomy of short-term versus long-term management, and much related to management and policy-design as well, the concept of commitment in general forms an important common thread throughout this research. For example, the persisting national commitment to oil development in Ecuador, seriously jeopardized the Yasuní-ITT Initiative, as described in section 3.2. not only did the national commitment to oil exploitation hamper the Initiative's progress, oil exploration obviously would persist throughout the country, even if the Initiative would have been pulled through. Furthermore, the government of Rafael Correa lacked long lasting commitment to the Initiative, as discussed in section 3.3.2. The possibility of exploitation of the ITT-block always existed as an alternative agenda in case the international community would not provide sufficient contributions. This lack of commitment in fact reveals that the Ecuadorian government was still geared into economism, instead of fully supporting the overall idea of leaving fossil fuels underground in order to protect the national park and subsequently mitigate climate change, which would be more in line with ecologism.

A recurring theme throughout this research has been the relation between growth and development and extractivism. The Ecuadorian economy was caught in neo-extractivism, looking to use the income from extractive practices for social programmes and development. As has become clear throughout this paper, lack of growth and development through extractivism can mostly be attributed to weak governance. Ecuadorian extractivism is characterized by weak governance and extractive institutions that are directed towards extracting income and wealth from one part of society to benefit another. As discussed in section 1.1, countries with a large dependence on natural resource extraction for

governance financing are generally more likely to have weak institutions and a weak state. In contrast, those resource-rich countries that have in fact been successful in their development distinguish themselves by having strong institutions and little corruption.

In the case of neo-extractivism in Ecuador, social development was used as an important reason to justify the persistence to oil exploration, exploitation and subsequent exportation, and thus the perspective of a development model based on economism, as described in section 1.2. However, strong opposition towards oil exploitation in Yasuní National Park eventually led to the introduction of the Yasuní-ITT Initiative, together with the introduction of an ecologically progressive constitution, which was more in alignment with ecologism, as seen in section 1.2. An extensive shift towards a more ecological view of societal and economic systems would require structural changes. On the consumer level, going green requires important lifestyle adjustments and the same applies to the political and economic systems, when they would be dedicated to ecologism, and more specifically towards the idea of leaving fossil fuels underground. As mentioned in section 1.2, green politics would direct its public policies towards topics related to sustainability, energy supply and overpopulation, and green economics would focus on satisfying need instead of greed. This shift, however, requires drastic societal changes. The same is true for the idea of the Yasuní-ITT Initiative. The Initiative required the international community to assume part of the joint responsibility for climate change. Within global politics however, hesitance persisted towards assuming this responsibility and the financial consequences that come with it.

Globally, the current development model remains based on commodities, and leads to a variety of issues. Infinite growth in a finite world is not possible without facing detrimental consequences, since infinite growth calls for increasing production, and increasing production in turn leads to more and more environmental degradation in the case of a commodity-based development model. However, these negative consequences are often overlooked in the search for economic growth. Financial gains are extensively calculated, but the losses are rarely counted, i.e. biodiversity loss, water pollution, human rights violations, etc.

"It looks like you are making a lot of money, but actually what is left behind is a huge devastation"
F. de Castro (personal communication, January 20, 2019)

As such, it seems like a profitable business, but in fact short term economic growth is only the tip of the iceberg, while underneath lie many forms of deterioration. Actually, it is the globalized economy that continues to push commodity-based development, due to persisting demand for natural resources. The profits of this development model, however, are short term in nature. This short-term perspective is a recurring theme throughout this research, considering the Initiative's lack of long-term political strategy. Furthermore, the value of wilderness areas such as the Yasuní National Park can only be put in perspective when taking into account the cost of its conservation, instead of merely the financial gains that come from exploiting it. On the local level, consequences of local exploitation practices are relatively directly visible in the form of pollution, whereas climate change can be seen as a global consequence of these local activities.

As illustrated throughout this paper, there is no simple answer to the question as to why the Yasuní-ITT Initiative did not succeed. In summary, the idea was very strong and remains very topical today. The focus on protection of people in voluntary isolation and of biodiversity provided the proposal with great ethical value, taking into account indigenous rights as well as the rights of nature. Furthermore, the general idea of leaving fossil fuels underground is a necessary next step in mitigating climate change in the future, and places of such high biodiversity like the Yasuní National Park could form an important starting point. However, many improvements could have been made in the design and

implementation of the Yasuní-ITT Initiative. What lies at the core of the Initiative's mismanagement was the lack of a long-term political strategy, together with weak, extractive institutions. Furthermore, a shift towards ecologism would require significant changes in existing structures. In order to establish this societal adjustment, the complete energetic model would need to be reassessed, looking first at energy consumption, and adjusting the production models afterwards. The Initiative may have been the first in the world to recognize the necessity of restricting the supply (see section 3.3.1), but the supply cannot be reassessed without taking the demand into account. As such, the idea had the ability to speak to sustainable development throughout the world, although it was unable to provide a clear pathway for future energy policies as well as environmental policies.

Bibliography

Acemoglu, D., & Robinson, J. (2012). Why nations fail: The origins of power, prosperity and poverty.

Acosta, A. (2009). *La maldición de la abundancia*. Comité Ecuménico de Proyectos.

Acosta, A. (2013). Extractivism and neoextractivism: two sides of the same curse. Beyond development, 61, 61-86.

Adams, I. (1999). Ideology and politics in Britain today. Manchester University Press.

Albacete, C., Espinosa, P., & Prado, W. (2004). Rapid evaluation of the Gran Yasuní Napo. Parkswatch, Durham, NC.

Andersen, F. (2018). Virunga National Park, the heart of darkness as UNESCO World Heritage. Continents Manuscrits, 11(11), Continents manuscrits, 01 October 2018, Vol.11.

Angosto-Ferrández, L., & Ellner, S. (2019). Neoextractivism and Class Formation: Lessons from the Orinoco Mining Arc Project in Venezuela. Latin American Perspectives, 46(1), 190-211.

Aragón, F.M. and Rud, J.P. (2013). 'Natural Resources and Local Communities: Evidence from a Peruvian Gold Mine', American Economic Journal: Economic Policy, 5(2): 1–25.

Arsel, M., Hogenboom, B., & Pellegrini, L. (2016). The extractive imperative in Latin America. The Extractive Industries and Society, 3(4), 880-887.

Arsel, M., Pellegrini, L., & Mena, C. (2019). Maria's paradox: oil extraction and the misery of missing development alternatives in the Ecuadorian Amazon.

Audu, A., Jimoh, A., Abdulkareem, S.A. & Lawrence, O. (2016) Economics and environmental impacts of oil exploration and exploitation in Nigeria, Energy Sources, Part B: Economics, Planning, and Policy, 11:3, 251-257.

Auty, R. (1990). Resource-based industrialization: Sowing the oil in eight developing countries. Oxford: Clarendon Press.

Bass, M. S., Finer, M., Jenkins, C. N., Kreft, H., Cisneros-Heredia, D. F., McCracken, S. F., … & Di Fiore, A. (2010). Global conservation significance of Ecuador's Yasuní National Park. PloS one, 5(1), e8767.

BBC News. (2014, March 4). US judge annuls Ecuador oil ruling against Chevron. Retrieved March 6, 2020, from https://www.bbc.com/news/world-latin-america-26441836

BBC News. (2018, September 8). Chevron wins Ecuador rainforest "oil dumping" case. Retrieved March 6, 2020, from https://www.bbc.com/news/world-latin-america-45455984

Beckerman, S., Erickson, P., Yost, J., Regalado, J., Jaramillo, L., Sparks, C., Iromenga, M., Long, K. (2009). Life histories, blood revenge, and reproductive success among the Waorani of Ecuador. Proceedings of the National Academy of Sciences of the United States of America, 106(20), 8134-8139.

Burchardt, H., & Dietz, K. (2014). (Neo-)extractivism – a new challenge for development theory from Latin America. *Third World Quarterly, 35*(3), 468-486.

Clark, A. (2011). Educators vs. entrepreneurs: Traits and bias in the teaching of SWOT. *Journal of Further and Higher Education, 35*(2), 287-298.

CONAIE. (2015, December 8). QUIENES SOMOS. Retrieved, March 5, 2020, from https://conaie.org/quienes-somos/

Coryat, D. (2015). Extractive politics, media power, and new waves of resistance against oil drilling in the Ecuadorian Amazon: The case of Yasunidos. *International Journal of Communication*, *9*(20), 3741-3760.

Coryat, D., & Lavinas Picq, M. (2016). Ecuador's Expanding Extractive Frontier: New social movements are challenging the Ecuadorean government's decision to drill for oil in the Yasuní National Park. *NACLA Report on the Americas*, *48*(3), 280-283.

Diamanti, J. (2018). Extractivism. Krisis, 2018(2), 55-57.

Dietz, K., & Engels, B. (2017). Contested Extractivism, Society and the State: An Introduction. In Engels, B., & Dietz, K. (Eds.). *Contested Extractivism, Society and the State* (pp. 1-19). Palgrave Macmillan, London.

Espinosa, C. (2013). The riddle of leaving the oil in the soil—Ecuador's Yasuní-ITT project from a discourse perspective. *Forest Policy and Economics, 36*(C), 27-36.

Espinosa-Landázuri, P. & Mancera-Rodríguez, N.J. (2015) La Iniciativa Yasuní-ITT: Mecanismo alternativo para la mitigación del cambio climático. *Luna Azul*, (40), 260-276.

Facchinelli, F., Pappalardo, S. E., Codato, D., Diantini, A., Della Fera, G., Crescini, E., & De Marchi, M. (2020). Unburnable and Unleakable Carbon in Western Amazon: Using VIIRS Nightfire Data to Map Gas Flaring and Policy Compliance in the Yasuní Biosphere Reserve. Sustainability, 12(1), 58.

Fact Sheet Yasuní-ITT Trust Fund. (n.d.). Retrieved February 25, from http://mptf.undp.org/yasuni

Finer, M., Vijay, V., Ponce, F., Jenkins, C., & Kahn, T. (2009). Ecuador's Yasuní Biosphere Reserve: A brief modern history and conservation challenges. Environmental Research Letters, 4(3), 1-15.

Franzen, M. (2006). Evaluating the sustainability of hunting: A comparison of harvest profiles across three Huaorani communities. Environmental Conservation, 33(1), 36-45.

Gobierno del Ecuador. 2008. Constitución de la República del Ecuador. Quito: Asamblea Nacional Constituyente.

Hansen, J., Sato, M., Russell, G., & Kharecha, P. (2013). Climate sensitivity, sea level and atmospheric carbon dioxide. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *371*(2001), 20120294.

Harrison, K. & Boyd, T. (2018). Environmentalism and ecologism.

Van Hinte, T., Gunton, T., & Day, J. (2007). Evaluation of the assessment process for major projects: A case study of oil and gas pipelines in Canada. *Impact Assessment and Project Appraisal, 25*(2), 123-137.

IUCN (1994) Guidelines for Protected Area Management Categories. IUCN, Gland, Switzerland and Cambridge, UK.

Killeen, T.J. (2007). A perfect storm in the Amazon wilderness: Development and conservation in the context of the Initiative for the Integration of the Regional Infrastructure of South America (IIRSA). ArlingtonVA: Conservation International

Konkel, L. (2016). Salting the Earth: The Environmental Impact of Oil and Gas Wastewater Spills. Environmental Health Perspectives (Online), 124(12), A230-A235.

Kreft, H., Köster, N., Küper, W., Nieder, J., & Barthlott, W. (2004). Diversity and biogeography of vascular epiphytes in Western Amazonia, Yasuní, Ecuador. Journal of Biogeography, 31(9), 1463-1476

Lalander, R. & Merimaa, M. (2018) The Discursive Paradox of Environmental Conflict: Between Ecologism and Economism in Ecuador. Forum for Development Studies, 45:3, 485-511

Lang, M. (2013). Prologue: The Crisis of Civilisation and challenges for the left. In: Lang, M., & Mokrani, D. (Eds). Beyond Development: Alternative Visions from Latin America (pp. 5-13). Amsterdam: Rosa Luxemburg Foundation and Transnational Institute.

Larrea, C. & Warnars, L. (2009). Ecuador's Yasuní-ITT Initiative: Avoiding emissions by keeping petroleum underground. Energy for Sustainable Development, 13(3), 219-223.

Larrea, C. (2012). Ecuador's Yasuní-ITT Initiative: an option towards equity and sustainability. *The Road to Río*, *20*, 58-63.

Le Calvez, M. (2013). La dependencia del petróleo: ¿obstáculo o estímulo para un cambio de matriz energética? *Letras Verdes: Revista Latinoamericana De Estudios Socioambientales,* (8), 4-6.

Le Quang, M. (2015). El sentido político de la iniciativa Yasuní-ITT: disputa entre capitalismo verde y ecosocialismo. Theomai, (32), 75-94.

Le Quang, M. (Ed.). (2016). La Revolución Ciudadana en escala de grises: avances, continuidades y dilemas. Instituto de Altos Estudios Nacionales, La Universidad de Posgrado del Estado.

Learned, E.P., C. Roland Christiansen, K. Andrews, and W.D. Guth. 1969. Business policy, text and cases. Homewood, IL: Irwin

Lu, F. E. (2001). The common property regime of the Huaorani Indians of Ecuador: Implications and challenges to conservation. Human Ecology, 29(4), 425-447.

Maddela, N. R., Masabanda, M., & Leiva-Mora, M. (2015). Novel diesel-oil-degrading bacteria and fungi from the Ecuadorian Amazon rainforest. Water science and Technology, 71(10), 1554-1561.

Mahdavy, H., & Cook, M. (1970). The patterns and problems of economic development in rentier states: the case of Iran. life, 1000(1).

Marx, E. (2012). With $116 million pledged, Ecuador moves forward with plan to protect rainforest. *Sci. Insider*.

Medinaceli Monrroy, M. (2013). ¿Adictos al petróleo?: Una perspectiva latinoamericana. *Letras Verdes: Revista Latinoamericana De Estudios Socioambientales,* (8), 7-8.

Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. The economic journal, 116(508), 1-20.

Mittermeier, R. A., Mittermeier, C. G., Brooks, T. M., Pilgrim, J. D., Konstant, W. R., Da Fonseca, G. A. B., & Kormos, C. (2003). Wilderness and biodiversity conservation. (Author Abstract). Proceedings of the National Academy of Sciences of the United States, 100(18), 10309-10313.

MPTF UNDP. (n.d.). Ecuador Yasuní ITT Trust Fund. Retrieved February 25, 2020, from http://mptf.undp.org/yasuni

Myers, N., Mittermeier, R.A., Mittermeier, C.G., Da Fonseca, G.A.B. & Kent, J. (2000). Biodiversity hotspots for conservation priorities. Nature, 403(6772), 853-858.

Ojala, M. (2017). Locating and creating SWOT analyses. *Online Searcher, 41*(1), 59-62.

Orta-Martínez, M., Pellegrini, L. & Arsel, M. (2018). "The squeaky wheel gets the grease"? The conflict imperative and the slow fight against environmental injustice in northern Peruvian Amazon. Ecology and Society, 23(3), 7.

Peláez-Samaniego, M. R., Garcia-Perez, M., Cortez, L. A. B., Oscullo, J., & Olmedo, G. (2007). Energy sector in Ecuador: Current status. *Energy Policy*, *35*(8), 4177-4189.

Pellegrini, L. (2018). Imaginaries of development through extraction: The 'History of Bolivian Petroleum' and the present view of the future. Geoforum, 90, 130-141.

Pellegrini, L., Arsel, M., Falconí, F. & Muradian, R. (2014). The demise of a new conservation and development policy? Exploring the tensions of the Yasuní ITT initiative. *The Extractive Industries and Society*, 1(2), 284-291.

Pickton, D., & Wright, S. (1998). What's swot in strategic analysis? *Strategic Change, 7*(2), 101-109.

Pitman, N. C., Terborgh, J. W., Silman, M. R., Núñez V, P., Neill, D. A., Cerón, C. E., ... & Aulestia, M. (2002). A comparison of tree species diversity in two upper Amazonian forests. Ecology, 83(11), 3210-3224.

Powęska, R. (2017). State-led extractivism and the frustration of indigenous self-determined development: lessons from Bolivia. The International Journal of Human Rights, 21(4), 442-463.

Prokosch, P. (2014). Gas flaring at oil drilling site on the Napo river, Amazon, Ecuador [Photo]. Retrieved from http://www.grida.no/resources/3820

Reis, J. (1996). Environmental control in petroleum engineering. Houston: Gulf Publishing.

Rex, K., Kelm, D. H., Wiesner, K., Kunz, T. H., & Voigt, C. C. (2008). Species richness and structure of three Neotropical bat assemblages. Biological Journal of the Linnean Society, 94(3), 617-629.

Rights and Resources Initiative. (2008, 23 October). Ecuador passes new Constitution acknowledging indigenous rights. Retrieved March 6, 2020, from https://rightsandresources.org/en/blog/ecuador-passes-new-constitution-acknowledging-indigenous-rights/

Rivadeneira, J., & English, P. (2007). Bird species of the Napo Wildlife Center and Napo Wildlife Center Reserve Area. Ecuador: Napo Wildlife Center.

Rival, L. (2010). Ecuador's Yasuní-ITT Initiative: The old and new values of petroleum. *Ecological Economics*, *70*(2), 358-365.

Rosell-Melé, A., Moraleda-Cibrián, N., Cartró-Sabaté, M., Colomer-Ventura, F., Mayor, P., & Orta-Martínez, M. (2018). Oil pollution in soils and sediments from the Northern Peruvian Amazon. *Science of The Total Environment*, 610, 1010-1019.

Sachs, J. D., & Warner, A. M. (1995). Natural resource abundance and economic growth (No. w5398). National Bureau of Economic Research.

Sachs, J. D., & Warner, A. M. (1997). Sources of slow growth in African economies. *Journal of African economies*, *6*(3), 335-376.

San Sebastián, M., & Hurtig, A. (2004). Oil exploitation in the Amazon basin of Ecuador: a public health emergency. *Revista panamericana de salud pública*, *15*, 205-211.

Scientists Concerned for Yasuní National Park (SCYNP). (November 25, 2004). RE: Proposed Petrobras road into Yasuní National Park. Ecuador.

Shaffer, P. (2016). Immiserizing Growth: A Research Agenda. Q-Squared Working Paper No, 66. Trent University, Peterborough, Canada.

Sovacool, B. K., & Scarpaci, J. (2016). Energy justice and the contested petroleum politics of stranded assets: policy insights from the Yasuní-ITT Initiative in Ecuador. Energy Policy, 95, 158-171.

Speth, J. (2004). Red Sky at Morning: America and the Crisis of the Global Environment. Yale University Press, New Haven, CT.

Suarez, E., Morales, M., Cueva, R., Bucheli, V. U., Zapata-Ríos, G., Toral, E., … & Olalla, J. V. (2009). Oil industry, wild meat trade and roads: indirect effects of oil extraction activities in a protected area in north-eastern Ecuador. Animal Conservation, 12(4), 364-373.

Svampa, M. (2013). Resource extractivism and alternatives: Latin American perspectives on development. In Lang, M., & Mokrani, D. (Eds). *Beyond Development: Alternative Visions from Latin America* (pp. 117-143). Amsterdam: Rosa Luxemburg Foundation and Transnational Institute.

Svampa, M. (2019). Neo-extractivism in Latin America: Socio-environmental Conflicts, the Territorial Turn, and New Political Narratives (Elements in Politics and Society in Latin America). Cambridge: Cambridge University Press

Swing, K. (2011). Fight for Yasuní Far from Finished. *Science*, *331*(6013), 29.

UN System Task Team on the Post-2015 UN Development Agenda. (2013). A renewed global partnership for development. Retrieved February 25, from https://www.un.org/en/development/desa/policy/untaskteam_undf/glob_dev_rep_2013.pdf

United Nations (n.d.a). United Nations Millennium Development Goals. Retrieved February 25, 2020, from https://www.un.org/millenniumgoals/

United Nations. (n.d.b). 17 Goals to Transform Our World. Retrieved February 25, 2020, from https://www.un.org/sustainabledevelopment/

Vallejo, M. C., Burbano, R., Falconí, F., & Larrea, C. (2015). Leaving oil underground in Ecuador: The Yasuní-ITT initiative from a multi-criteria perspective. *Ecological Economics*, *109*, 175-185.

Vega, A. (2010, June 17). Importancia del petróleo. Retrieved March 14, 2020, from https://www.ocio.net/estilo-de-vida/importancia-del-petroleo/

Venables, A.J. (2016). Using natural resources for development: why has it proven so difficult?. *Journal of Economic Perspectives*, *30*(1), 161-84.

World101. (n.d.). *Who is Responsible for Climate Change?* Retrieved January 12, 2020, from https://world101.cfr.org/global-era-issues/climate-change/who-responsible-climate-change

Appendix 1 – List of interviewees

Name	Location	Date	Duration
Alberto Acosta	Quito (through Skype)	8-7-2019	0:23:44
Carlos Larrea	Quito	17-7-2019	1:17:03
Matthieu le Quang	Quito	18-7-2019	1:57:55
Fander Falconí	Cuenca	29-7-2019	0:17:51
Pedro Bermeo	Quito	9-8-2019	0:38:30
Eduardo Pichilingue	Haarlem (through Skype)	10-9-2019	0:57:17
		11-9-2019	0:44:17
Lavinia Warnars	Haarlem	3-12-2019	0:53:17
Carolina Valladares	Amsterdam	13-12-2019	0:36:49
Fabio de Castro	Amsterdam	20-01-20	0:37:49
Lorenzo Pellegrini (key informant)	Leiden (through e-mail)	26-04-2019	N/A

A summary of the results, as well as all transcriptions of the interviews can be accessed through the following link: https://www.dropbox.com/sh/ju0kqejkf1a5b58/AADrv_fq1jOa37m61AtvE9aJa?dl=0