

# RUMBLE IN THE JUNGLE

The impact of the oil booms in Venezuela, Colombia, Ecuador and Peru on the indigenous populations of these countries, and the way in which their resilience determined this impact.



(Koenig 2008)

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## SUMMARY

For centuries, the indigenous peoples of South America have been facing intruders entering their territories in search for valuable resources. In the 20<sup>th</sup> century, the focus shifted to oil, which led to a whole new wave of fortune seekers. Oil development started. During the last decades, technological innovation has made exploratory and exploitative activity much easier for oil companies by making it possible for them to locate resources in parts of the world that were previously isolated and inaccessible; in many cases indigenous territories.

These remote forests, which were once inaccessible, have now turned into places of high economic value and settings for violent conflict over ownership. Oil development has caused large-scale harmful social, cultural and environmental changes in the indigenous territories. However, indigenous groups have started to stand up against the destruction of their ancestral grounds. In the confrontation with these international companies, instead of being passive victims of the situation, some of the different indigenous groups have redefined themselves as actors. However, at the same time, other communities have fallen apart or disappeared as a whole.

This research focuses on why some indigenous groups have remained strong during the oil booms that have been taking place, while others have been destroyed. This question is approached by looking at the resilience of indigenous populations. The concept of resilience stands for the magnitude of disturbance that can be buffered or absorbed by a system without it undergoing fundamental changes in its functional characteristics (Berkes et al., 2003:14-15). Applied to the context of this research project, resilience is the amount of disturbances caused by oil development the indigenous populations can buffer or absorb without undergoing fundamental changes in its fundamental characteristics.

The research method used for this project is a comparative case study research, focusing on the four countries Venezuela, Colombia, Ecuador and Peru. The practical strategy that has been used to conduct this research project is a literature study. The research aims to find an answer to the question what impact the oil booms in Venezuela, Colombia, Ecuador and Peru have had on the indigenous people in these countries, and in what way their resilience has determined this impact. Firstly, it was expected that if the resilience level of the indigenous people in a country is high, this will have caused an absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts and vice versa. Secondly, it was expected that if the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa.

The aforementioned hypotheses have been confirmed partially. The results show that the oil booms had different impacts in the four countries, and there is a link between the resilience of the indigenous populations and this impact. However, due to the complexity of the concept of resilience it is not appropriate to make strong cause-effect statements.

This research project has added to the small but growing collection of research that has tried to link resilience theory to concrete, real-world examples. It has provided rich in-depth data about the four case studies, however the usage of qualitative data could have made the analysis less objective. Future research should continue to investigate ways in which the theory of resilience can be applied to practice, and more specifically to indigenous populations and their struggle with oil development.

## ACKNOWLEDGEMENTS

The inspiration to start a research project focusing on the struggle of indigenous people in their dealings with the destructive effects of oil came from the inspiring people I worked with in a volunteer project in Ecuador in the summer of 2007. I would like to thank all the wonderful people there that encouraged me to open my eyes to see what was going on in their country and do something with it. These insights will always stay with me and have influenced me greatly as a person.

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# CHAPTER 1.

## RESEARCH BACKGROUND

### 1.1. INTRODUCTION

For centuries the indigenous peoples in South America have been facing challenges that are caused by the unfortunate fact that most of their lands contain resources that are viewed as highly valuable by others. Since the arrival of the colonizers several centuries ago, indigenous groups have repeatedly experienced the intrusion of their territories by outsiders who wanted to claim the resources found there, such as timber, gold, copper, and oil. On many occasions these outsiders even went as far as claiming the right to possess the people themselves, who were forced to be their slaves. Although the effects were clearly felt by the indigenous groups, during the early colonial times, the exploitation of resources in indigenous territories took place on a relatively small scale. Over time, the Spanish found new resource deposits and means to extract these, thus resource extraction gradually increased. When the countries of South America became independent, their newly established governments showed a strong interest in continuing and expanding resource extraction as a means to improve their economic situation.

About four decades ago, neoliberalism started to rise in South America. As in other parts of the world, the ideology of the 'free market' increasingly became a basis for organizing society. In South America this restructuring created fast-growing accumulations of wealth along with increasing concentrations of poverty and exclusion. A central tool for restructuring was the 'Washington Consensus'; a policy package demanded by the International Monetary Fund, the U.S. Treasury, the World Bank, and Wall Street. The package gave foreign companies unrestricted access to South America's resources and financial markets. The region was also made more attractive for global capitalism by reducing the previously created regulatory capacities of the state, the protection of labor and the social welfare programs (Prashad & Ballvé, 2006:26-27). Big international mining, oil and lumber companies could now easily access and exploit resource rich areas on a large scale, which included indigenous territories.

Technological innovation has made exploratory and exploitative activity much easier for these companies by making it possible for them to locate resources in parts of the world that were previously isolated and inaccessible. In many cases, indigenous peoples inhabit these resource-rich areas. These remote rainforests, mountains, deserts and tundras, which were once inaccessible and thus of little interest to most, have now turned into places of high economic value and settings for violent conflict over ownership. According to the Worldwatch Institute (2002, in: Gedicks, 2003:85) around the year 2000, a quarter of the armed conflicts around the world were strongly related to the presence of resources. Legal or illegal exploitation triggered or worsened violent conflicts and financed its continuation.

In many cases, whether in the distant past or recent future, the discovery of the resources has led to exploration and exploitation activities that caused large-scale harmful social, cultural and environmental changes in the indigenous territories. When the colonists came, many of the indigenous groups tried to keep these intruders out and fight the negative influences that they brought. Local social and political movements were created, and have in some cases been able to halt or slow down unwanted development with very limited means.

History has shown us that the power and adaptability of social movements in South America should not be underestimated. For quite a while, South America's nineteenth-century independence movements were seen by the ruling elites as unimportant, isolated groups, until they became very powerful and overcame their suppressors.

During the last decades, standing up against developments initiated by large international companies and national governments has been a large new challenge for the indigenous groups. However, all over the world indigenous movements have (re)surfaced to fight unwanted developments. The resistance movements that have developed are now fighting against the negative changes that large multinationals have brought to their lives. In the confrontation with these international companies, instead of being passive victims of the situation, some of the different indigenous communities have redefined themselves as actors. These

communities have sought a national or international audience and have created or joined networks to commonly achieve their goals.

I have personally always been interested in indigenous cultures and the way in which they deal with modern day influences. During my first visit to Ecuador in 2007, I was first introduced to the case of the indigenous people fighting oil development in their country. This led me to immerse myself in the topic and now dedicate my thesis research to it. The research project I can present to you today focuses on indigenous groups in South America and their relation to oil development. More specifically, the focus will be on the impact of the oil booms in Venezuela, Colombia, Ecuador and Peru on the indigenous peoples of these countries. The relation between the impact of oil development on indigenous people and their resilience will be researched. Resilience is a complex concept. Therefore, for now it will suffice to note that resilience stands for the magnitude of disturbance that can be buffered or absorbed by an entity without it undergoing fundamental changes in its functional characteristics (Berkes et al., 2003:14-15). Thus, resilience in the context of this research is a characteristic indigenous groups can possess, which can give them the ability to persist in the face of change, by spreading the risk amongst the different subparts of the system which can serve as a buffer, and adapting to changes (Berkes et al., 2003:362). The concept will be explained further later in the chapter.

In this first chapter, I will introduce the theory behind the research project and its background. I will do this by starting off with a discussion of the general concept of oil booms and their related consequences in the following section. I do this so that the reader can better understand the context of the research. The development of oil booms is discussed, as well as the different consequences oil booms can have on countries. After this, I will focus more specifically on the oil booms in the four South American countries that are under study. It is important to understand how oil exploitation has developed in the countries and how this has shaped them. After this, a first introduction to the indigenous groups in the four countries will be given. Lastly, in the third and final section of the chapter I will discuss the concept of resilience, as well as its presumed link with indigenous groups and oil extraction.

## 1.2. OIL BOOMS AND THE RESOURCE CURSE

### 1.2.1. Oil booms

Crude oil has been used by man since ancient times. Gradually, and especially during the last century, it has become an indispensable part of our societies, economies, technologies and politics. The substance has become interwoven into almost every aspect of our everyday lives, and it therefore does not come as a surprise that during the last decades we have become more and more thirsty for oil. Our global oil production and consumption have risen tremendously. Especially since the mid-sixties of the last century production started to rise sharply. Figure 1.1 shows that between 1965 and 2008, oil production has increased over 2.5- fold. Logically, oil consumption has increased with it (see figure 1.2). In many oil-exporting countries, the increasing demand for oil has led to a period of rapid economic expansion, an economic boom. The petrodollars that were earned gave rise to new aspirations. Oil producing

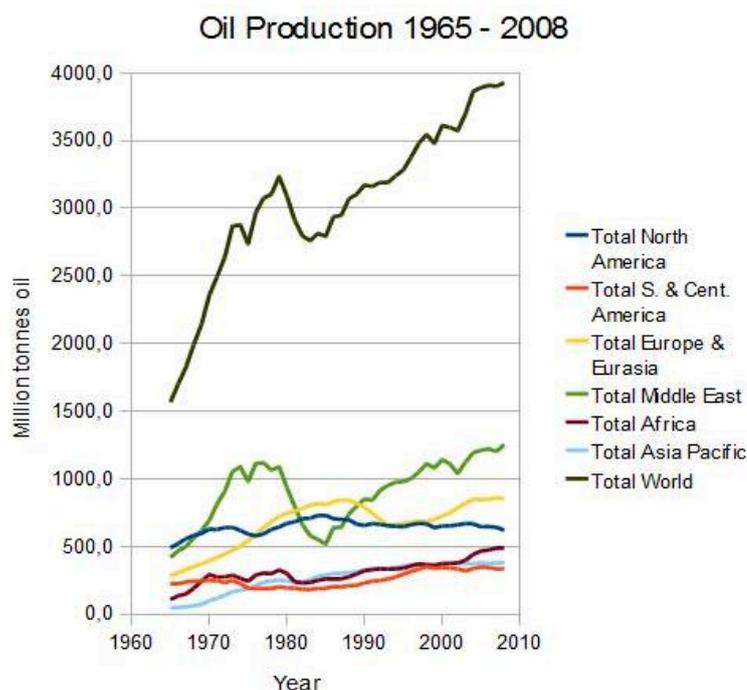


Figure 1.1. Oil production between 1965-2008. Based on BP, 2009.

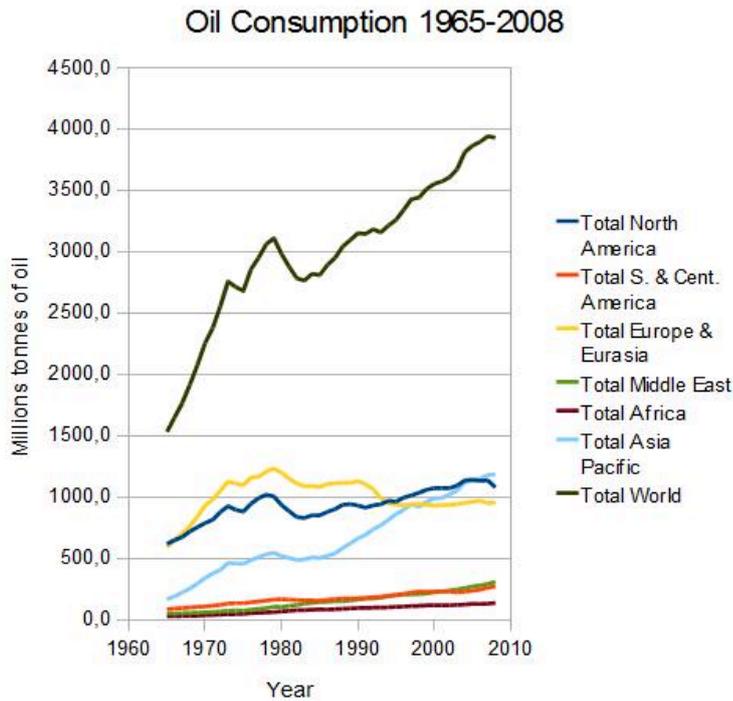


Figure 1.2. Oil consumption between 1965-2008. Based on BP, 2009.

generally benefited their societies. Instead, most of the oil producing countries are actually growing slower than non-producers (Stevens & Dietsche, 2008:56). This poor outcome is generally attributed to the '*resource curse*', a phenomenon I will describe in the next section.

### 1.2.2. The resource curse

Wealth that is created by the exploitation of natural resources differs significantly from other types of wealth. Two main differences stand out. Firstly, an important difference is that natural resource wealth does not literally have to be produced or manufactured; it only needs to be extracted. Natural resource extraction can take place rather independently of other sectors of the economy in the country, since obtaining it does not require a production process. Because natural resource wealth generation is so 'enclaved', it can take place rather independently of other political processes. In many cases the government does not necessarily need the cooperation of its citizens to exploit natural resources and retrieve an income from this (Humphreys et al., 2007:4).

A second important characteristic of natural resource wealth is that natural resources like oil are non-renewable. It can therefore be argued that they should not be seen as a source of income, but instead should be treated as an asset. When a measurement of the national income of an oil producing country is made, in reality this income is overstated, since this measurement does not account for the depletion of the natural resource stock. As Humphreys et al. (2007:170) mention, '*it is like augmenting the family income by selling the family silver: it cannot last and is really a form of asset disposal- not a source of income*'. Instead of producing income, the countries are actually living off of their capital.

The characteristics of natural resource wealth just mentioned can easily evoke political and economic processes that produce unfavorable economic and social effects, transforming possible benefits of the presence of a resource into a curse for the country. The term '*resource curse*' refers to the failure of resource-rich countries to benefit from their own natural wealth. Especially non-renewable resources that are concentrated and spatially constricted (point-source resources), of which oil is an example, are strongly linked to the phenomenon. The literature offers some explanations for occurrence the resource curse effect. Why does the resource curse occur in some resource-rich countries but not in others? It seems that the quality of the government and its institutions are the key. The central problem for resource-rich countries is

countries were hoping that their new source of income would lead to more prosperity, equity and autonomy. It was hoped that the petrodollars that were flowing in could be redirected into other productive activities. Moreover, for producing developing countries, the oil revenues would provide an opportunity to 'catch up' to the developed world. This could be done while simultaneously bringing a better life for their people and creating more political stability (Karl, 1997:3).

In several Western countries, such as Canada and Norway, oil production has indeed contributed to successful economic development (Mikesell, 1998:191). However, it turns out that these countries are two of the few exceptions. In the majority of the cases, and especially in developing countries, the potential benefits of oil have not materialized. These countries have not been able to use the oil revenues in a way that would have

that various players are trying to obtain these resources for their own private benefit. If the government wants to act in the interest of those it is supposed to serve (its citizens), and thus use the resource wealth for them, this can only be done properly if several conditions are met. First of all, transparency is required. In order to prevent corruption, openness and availability of information are crucial. A second point concerns ownership. It is important that the resource-rich country remains the ultimate owner of the natural resource, not the international oil companies. The third principle concerns fairness. Natural resource rents should mainly go to the country itself. Foreign oil companies should only get a fair rate of return which is adjusted for the risks they are facing (Stiglitz, in: Humphreys et al, 2007:26,44). According to some experts in the field (e.g. Mehlum et al.,2006:1-5; Karl, 1997:236), it is mainly the quality of government *institutions* that will eventually determine whether the resource curse will develop or not. They state that what will happen depends to a large extent on the quality of the institutions that will distribute resource rents. The presence of natural resources put the institutional arrangements of a country to the test. According to them, the resource curse will only appear in countries with inferior institutions.

Thus, according to different authors the quality of the government and its institutions determine to a large extent whether the resource curse will develop or not. However, some other related phenomena can increase the *magnitude* and the *intensity* of the resource curse. These will be described in the next sub-sections.

#### 1.2.2.1. Rent-seeking

A phenomenon linked to the extraction of large deposits of oil or other resources is '*rent-seeking*'. Countries that have large resource deposits are at a large risk that rent-seeking will start taking place in their economy. Economic *rent* in the case of oil extraction is '*a gap [...] that exists between the value of the resource and the cost of extracting it*' (Humphreys et al., 2007:4). Actors from the private or public sector try to earn income by acquiring these rents. They do so by manipulating or exploiting political mechanisms or the economic environment of the country.

Especially developing countries usually do not have the expertise and the financial means to start oil exploration and extraction activities by themselves. Therefore, if they want to get access to their oil wealth, they have no other option than to let large international corporations step in. This situation leads to a relation in which the buyer, which is an international corporation, knows more about the good that is traded than the seller, the government. This gives the corporation a strong bargaining position (Humphreys et al., 2007:4-5). The challenge for the oil- rich countries is to get a fair deal out of this situation, not allowing a large share of the oil rent to flow out of the country. All the money that leaves the country or fills private pockets in the public sector cannot create wealth for the society as a whole. Again the quality of the institutions is very crucial here.

Mehlum et al. (2006, 1-5) make a distinction between what they call '*producer friendly*' and '*grabber friendly*' institutions. If the institutions in an oil producing country are producer friendly, rent-seeking and production are complementary activities. Institutions of this type help resource rich countries to take full advantage of their natural resources. However, if the institutions are grabber friendly, this means that rent-seeking and production in a country are activities that compete with one another. Grabbers aim for the rents from natural resources and try to keep as much as they can of them for their own purposes. If the opportunities present themselves, for instance in the form of a weak rule of law, corruption or malfunctioning bureaucracy, grabber friendly institutions can flourish by specializing in influence activities that are unproductive for the country in which they take place. The presence of grabber friendly institutions pushes aggregate income in the country down and can attract the entrepreneurs and knowledge resources into unproductive activities.

#### 1.2.2.2. Dutch disease

Once contracts between the government and oil companies have been signed, other problems are prone to develop as well. In resource rich countries a phenomenon called '*Dutch disease*' is likely to occur. Dutch disease is a process whereby new discoveries or favorable price changes of natural resources cause distress in other economic sectors, like agriculture or manufacturing (Karl, 1997:5). This happened in the Netherlands in the 1970s when natural gas was discovered in the North Sea, hence the name Dutch disease. In the process in which Dutch disease develops, the increase in revenues from the natural resources will raise the

exchange rate. This makes the export of non-natural resource commodities more difficult. Meanwhile, foreign exchange earned from the natural resource may be used to purchase internationally traded goods. Buying these instead of producing them in the country itself will be at the expense of the domestic manufacturers of these goods. At the same time, the resource boom will increase the demand for labor and materials in the booming sector, shifting them away from other sectors (Humphreys et al., 2007:5). Thus, in this process of change, the natural resource sector gradually crowds out the production of traded goods that can stimulate economic growth. Dutch disease creates a very unstable economic situation. If the prices of the natural resource drop or if the resource runs out, the other economic sectors are weakened and cannot take over. Since less technological growth has taken place in these sectors compared to other countries, they will have a disadvantageous position.

### *1.2.2.3. Conflict and instability*

A common problem for many resource rich countries is their proneness to conflict. The presence of natural resources -and particularly oil- in resource rich (developing) countries often encourages conflict and civil war. Why is this the case and how does this happen?

Fearon (2005:500-503) and Karl (1997: 58-62) argue that a weak state is the main reason that the risk of conflict increases. When the oil booms in the developing countries started, their public domains grew a lot. Before this time, the public domains were hardly developed. Apart from the large revenues that the international corporations received, on a national level the remaining oil money almost solely went to the public sector. The private sectors hardly benefited from these revenues at all. The state now had the opportunity to expand greatly, and a concentration of power took place. However, the quality of state institutions did not increase along with their quantity. Institutional evolution proceeded very slowly and unevenly. This happened because the state was not stimulated to develop administrative competence and control. Most of its income would come from oil revenues, and few governments were interested in obtaining additional parts of the state income from for instance domestic taxation. The reason for this was that it was easier to obtain money from oil extraction than to introduce unpopular domestic changes. Many governments have become quite proficient in monitoring, regulating and promoting the oil industry, but this has happened at the expense of capacity to build strong and coherent bureaucracies that could successfully make and implement policies and maintain control.

A weak state is at risk for opportunistic rebellion by groups that want to seize power in order to get access to the resource wealth of the country for their own purpose. Conflicts can also develop when the living conditions of citizens decrease, or the gap between them and the ruling elite increases. A weak state can easily turn worse and corruption can develop or increase. Money and resources then end up in the pockets of the powerful elite, instead of being used for the provision of public goods for citizens. In this case rebellion does not necessarily have to be based on opportunism, but rather on grievance and protest (Collier & Hoeffler, 2005: 626).

As has already become clear in previous paragraphs, the very nature of oil dependent countries creates an imbalanced economy. If a large part of the national income depends on oil rents, the country becomes prone to shocks. If oil revenues decrease due to depletion or because oil prices are going down, the economic performance of the country immediately drops with them. Within a very short amount of time, an economic shock can develop. Since the economy is losing the source of income it is depending on, this process will have severe impacts on the country. In these circumstances citizens are likely to lose confidence in their government's performance. This can form another source for rebellion and conflict (Collier & Hoeffler, 2005: 626).

### **1.2.3. Oil booms in Venezuela, Colombia, Ecuador and Peru**

In the previous section it has become clear that oil booms can develop into a resource curse, which often also happens in reality. In this section, I will zoom further into the countries that will be studied for this research project, which are Venezuela, Colombia, Ecuador and Peru. All of these four countries have experienced oil booms. But what has this development meant for them? I will provide the reader with a general overview on this in this paragraph. Extensive descriptions of the characteristics of and developments of the oil boom in

the individual countries will be provided in later chapters.

### 1.2.3.1. The development of the oil booms

The oil booms in the countries under study started at different points of time and have been of different magnitudes. Compared to the other three countries, large-scale oil exploitation started very early in Venezuela. Already in 1928, Venezuela was the world's leading oil exporter (Salas, 2009:6). Although some exploratory and smaller scale drilling had taken place before, the real take-off of oil development in the other three countries took place in the 1970s and 1980s.

Unfortunately, reliable and precise data about oil production are only available from the mid-1960s onwards. As can be seen in figure 1.3, the amount of oil produced per country in this time period varies largely. The Central Intelligence Agency (2010) recently compared the oil production of one hundred and fourteen countries that are currently producing oil. They listed Venezuela as the tenth largest oil producer in the world. Colombia is number twenty-nine on the list, Ecuador thirty-one and Peru has the lowest ranking of the four, which is forty-nine.

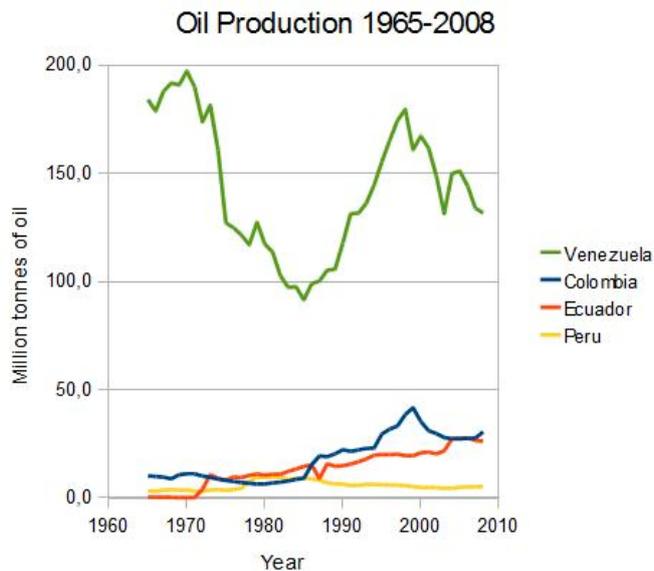


Figure 1.3. Oil production between 1965-2008 in Venezuela, Colombia, Ecuador and Peru, in millions of tons of oil. Based on BP, 2009.

Oil exports account for different parts of the total export of the countries; an astonishing eighty percent for Venezuela (Energy Information Administration, 2010), forty-seven percent for Colombia (Ministerio de Comercio, Industria y Turismo, 2010) forty percent for Ecuador (Revenue Watch Institute, 2010), and 12.8 percent for Peru (International Trade Suite 101, 2006). The fact that a large part of the export revenues of these countries depends on a single source makes them vulnerable to economic shock in times of relapse.

### 1.2.3.2. The impact of the oil booms

To find out whether the hopeful expectations connected to oil exploitation in the four countries under study had become reality, several sources of information have been consulted. By looking at a few important measurements, an overall (but incomplete) picture can be created. First of all, an important question is whether the wealth of the four nations has increased. I will provide more detailed country specific profiles in the following chapters.

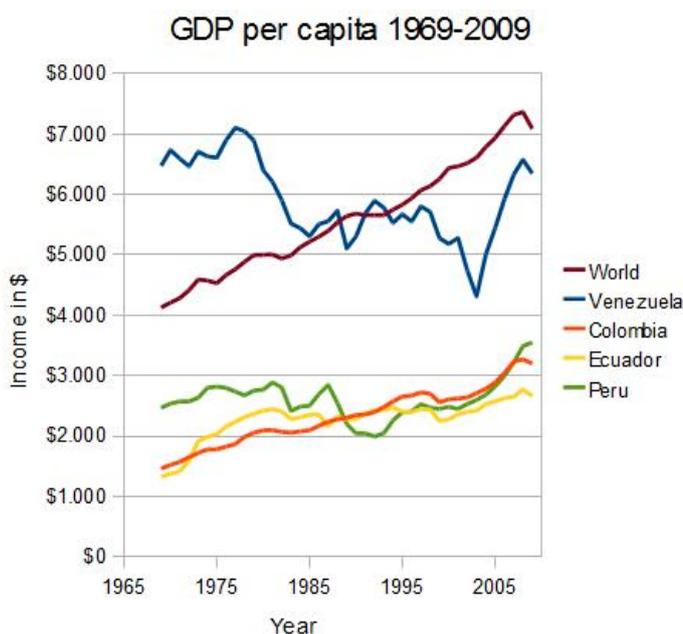


Figure 1.4. GDP per capita, between 1969-2009, measured in yearly income in \$. Measures are taken for Venezuela, Colombia, Ecuador and Peru, and the average GDP of the world. Based on: Economic Research Service, 2010.

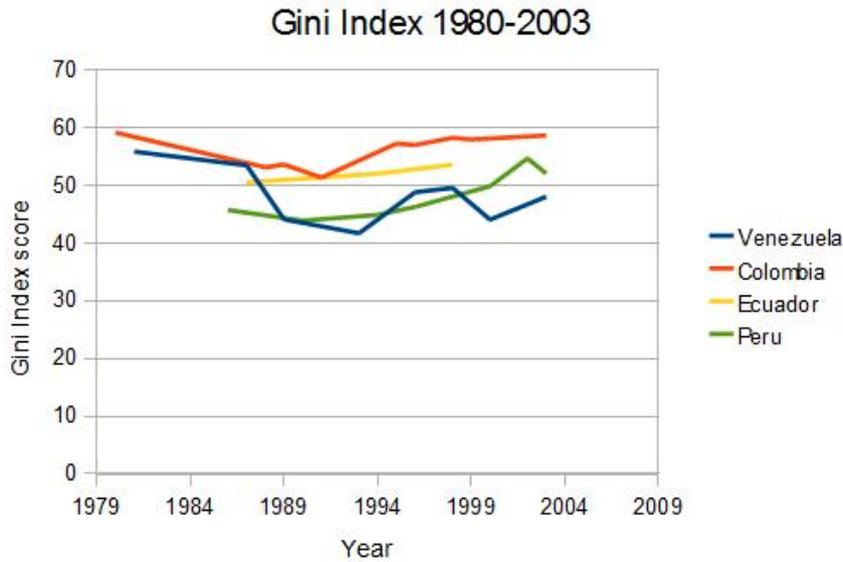


Figure 1.5. Gini Index between 1980-2003 for Venezuela, Colombia, Ecuador and Peru. Based on Worldbank, 2007; NationMaster, 2010(2).

gives information about the inequality of family income or wealth in a country. Gini Index scores can vary from zero, indicating perfect equality, where every household earns the exact same amount of money, to a hundred, which stands for absolute inequality (Central Intelligence Agency, 2010 (1)). Unfortunately, not all yearly Gini Index scores were available for all countries, and the range of scores that is available only stretches from 1980 to 2003. However, the limited data still shows us a trend of very high scores. The scores are even amongst the highest of the world. There is a large difference between these scores and the best (or lowest) scores in the world, which can be found in Scandinavia and are around twenty-five. So even if the average wealth per capita in some of the countries has increased, it is distributed very unevenly. Thus, there are very large differences in wealth between people. This indicates that even if the oil booms were economically profitable for the countries, the revenue that was created by them was not distributed very evenly.

Some historical data is also available about corruption in the countries under study. Figure 1.6 shows the scores of the four countries on the Corruption Perception Index (CPI). The CPI ranks countries in terms of to what extent public officials and politicians are perceived as corrupt (Internet Center for Corruption Research, 2010). Scores range from zero to ten, with zero indicating extreme corruption and ten indicating no corruption. As can be seen in the figure, the last thirteen years corruption levels have been perceived as high to very high. Colombia's perceived corruption has declined somewhat. At least for the second half of

As can be seen in figure 1.4 on the previous page, the four countries started off at different levels of GDP per capita and have followed different trends on this indicator. Except for Venezuela (within the timeframe of the graph) the GDP per capita has grown. However, when this growth is compared to the average economic growth of all the national economies in the world, relatively speaking these countries have not done very well. Furthermore, growth of GDP does not necessarily mean that people are generally wealthier now than thirty-five years ago.

Figure 1.5 portrays several scores on the Gini Index at different moments in time. The Gini Index

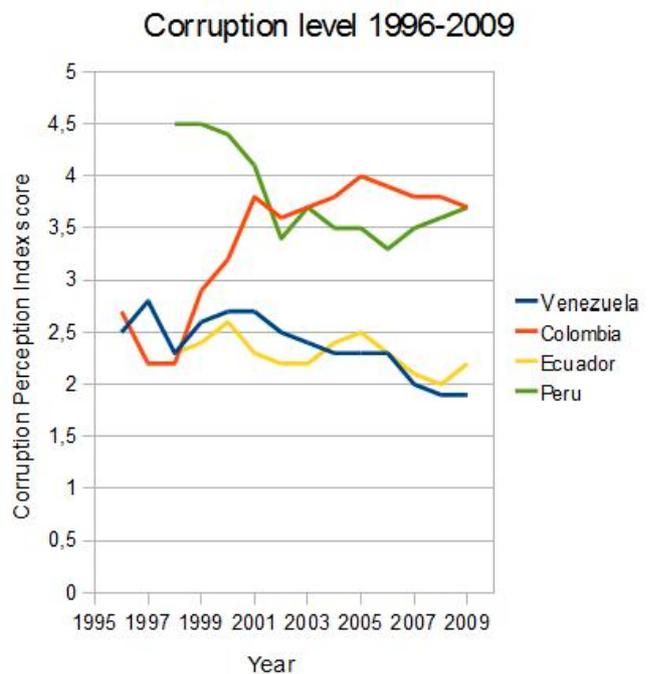


Figure 1.6. Corruption level between 1996-2009 for Venezuela, Colombia, Ecuador and Peru, measured as scores on the Corruption Perception Index. Based on Transparency International, 2010.

the oil booms in the four countries, the countries have not been able to tackle the corruption problems they are facing. Written records (e.g. Karl, 1997:148-149; Gerlach, 2003:89-90) indicate that corruption was also very high in all four countries before the first CPI measurements took place. These however do not allow us to plot an exact trend line for this period.

When it comes to conflict and violence, no significant progress seems to have been made since the oil booms have started. As has been the case in many other oil exporting developing countries, the countries under study have experienced numerous conflict situations within their borders during the last few decades. A multitude of conflicts have taken place over the years, for which in many cases oil development was a motive (e.g. Gedicks, 2001: 73-77; Gerlach, 2003:163-203; Tinker Salas, 2009: 57-62). I chose two examples to illustrate these conflicts. In Colombia, the guerilla group the National Liberation Army (ELN) has bombed over five hundred oil pipelines between 1984 and 2001. This was done as a way to protest against oil companies and nationalization of the industry. As a response, the government militarized the areas where the bombings took place. The local population, as well as trade unionists, human rights observers and other groups, whom they presumed to be guerilla supporters, were terrorized and in some cases murdered by the military (Gedicks, 2001:58). Another recent conflict situation emerged in 2009, when the ongoing opposition to oil exploitation in the Peruvian Amazon led to a political crisis. After over two months of civil disobedience and protests, in June a military intervention was ordered by the government, which resulted in violence. The stand-off led to an estimated death toll of thirty-eight civilians and twenty-five soldiers, and one hundred fifty-five civilians were injured (Guardian, 2009; The Real News Network, 2009). More specific descriptions of these types of conflicts will be described in the following chapters focusing on the four countries individually.

Looking at the data that has been presented in this section, it seems that the aspirations connected to oil development have not materialized in the four countries I focus on. The countries are to different extents relying on oil export revenues for their income. The dependence in all countries, but especially in Venezuela, is very high. This means that if oil prices crash or the countries run out of oil, their national economies will have severe problems. Even though the GDP has risen somewhat in three out of the four countries, the growth is slower than the average global economic growth, which means that the gap is only widening further and the countries have not been able to catch up to the developed world. Inequity within the countries is still very high, which makes one wonder whether the petrodollars reach the disadvantaged people at all. The problems of internal conflict and corruption have not been tackled during the oil booms either in the four countries. For now, I will state that the data that has been presented indicates that oil has been more of a curse than a blessing for the four countries. However, in the chapters three to six more detailed descriptions will be given of what the oil booms have really meant for the four countries individually.

#### *1.2.3.3. Oil booms and indigenous people*

The previous section has provided an introduction into the oil booms that took place in Venezuela, Colombia, Ecuador and Peru. Some of the general impacts the oil booms had in these countries have been discussed as well. In this section of the introductory chapter the focus becomes even more specific, which leads us to now arrive close to the core topic of the research project. As has been mentioned before, the research focuses on the impact of the oil booms in the four countries under study on their indigenous peoples, and on the relation between this impact and their resilience. Therefore, I will now introduce the relationship between indigenous people and oil development.

Indigenous communities, peoples and nations are *'those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems'* (UN Secretariat of the Permanent Forum on Indigenous Issues, 2004:2). Approximately four hundred different indigenous tribes live in Latin America. They compose between thirty-five to forty million people, which is six to ten percent of the total Latin American population (Yashar, 2007:19). The sizes of the indigenous populations in the countries that are studied for this project vary quite a lot. Precise estimates vary somewhat in literature, but following Yashar (2007:21), these are: Venezuela two percent, Colombia two percent, Ecuador thirty to

thirty-eight percent, and Peru thirty-eight to forty percent. The indigenous people in these countries display a colorful variety of cultural features. A multitude of languages, traditions, religious ceremonies, dress, and lifestyles exists among them. What they all have in common is that over time they have developed excellent survival skills that fit their specific natural environment.

So then, what relationship does this diverse set of people have with oil? As we shall see in this thesis, when it comes to the distribution of the advantages and disadvantages of the oil booms, the booms have generally not caused any direct positive effects for the indigenous people. Instead, oil development has presented indigenous groups with a wide spectrum of social, ecological and economic challenges they had and have to overcome. From the beginning of the oil booms onwards, the goal of oil companies has been pumping as much oil as possible out of the ground at the lowest possible economic cost. Unfortunately, this often happened at the expense of indigenous groups and their natural surroundings.

In the process of oil extraction, oil companies have employed practices and technologies that do not conform to the social and environmental standards that are applied in Western countries. The unsustainable extraction methods that have been used have led to severe environmental contamination in all four countries under study. The process of oil development can be divided into three stages, which are the exploration, production and transportation of oil (CESR, 1994:5-6). Oil exploration consists of the clearing of trails, exploratory seismic detonations of explosives and the drilling of test wells. This process causes land erosion, fragmentation, and the dispersion of wildlife. Exploratory wells produce an average of 4000 cubic meters of drilling wastes each. To discharge the waste, open waste pits are created from which toxins leach out into soil and groundwater as the pits degrade or overflow with rainwater (Hurtig & Sebastián, 2002: 1021) The production of oil causes the largest pollution, however. When valuable oil deposits are found, final wells are created. After the oil is extracted from these wells, separation stations, which separate oil from the waste, discharge untreated toxic wastes into large waste pits. For instance in Ecuador only, over 4.3 million gallons of waste is pumped into these pits each day. For the last step in the process, which is transportation, large amounts of heavy crude oil are taken out of the pits and poured on local roads to make the roads better suited for transport (CESR, 1994:6). All these activities take a large toll on the ecosystems the indigenous groups are part of.

Indigenous people have also experienced increased social conflict due to oil development. Many of the oil concessions overlap with indigenous territories. Oil companies (and others) thus intruded indigenous lands when they started their activities there. This has oftentimes led to hostile confrontation between indigenous groups and oil companies. Tensions also rose between the indigenous groups and other (e.g. Anaya 2009; Romero 2009, in: Finer et al., 2010:2). In many cases oil development goes hand in hand with massive military presence. *'It is frequently associated with systematic human rights abuses against native peoples, including mass killings, arbitrary executions and destruction of their food supply'* (Gedicks, 2001:16).

In many cases, the start of oil development in indigenous territories has led to a decrease of the indigenous populations living in these territories. Indigenous people have a close connection to the land they live on. Because they have a subsistence lifestyle, they depend on their surroundings for survival. Therefore, they are very vulnerable to sudden changes to the ecosystems they are part of. If for instance toxic waste pollutes their rivers and soils, this will impact their lives to a much greater extent than when this would happen in areas where people do not depend on their direct surroundings for their livelihoods (Kimerling, 1991: 34-37). Several indigenous groups were forced to leave their territory because it was no longer inhabitable for them. Pollution, logging, violence and other disturbances made maintaining traditional subsistence lifestyle impossible. Oil development has in some cases even led to the extinction of indigenous tribes. This was for instance the fate of the Tetete tribe in Ecuador. When oil drilling started in the Tetete territory, they were not able to survive the diseases that were brought by the oil workers and the pollution and loss of land that was a result of the unlawful drilling practices of Chevron Texaco (Miller, 2010). Today there are no surviving Tetete members left.

However, despite all these negative developments, many indigenous groups are still surviving and living in their territories today. When they were confronted with the oil companies, many indigenous groups decided to not be passive bystanders, solely observing the events that were taking place, but they actively developed ways to deal with the changes that were coming their way. Contrary to the image that some mass media used to show us of the indigenous tribes fighting a losing battle, we will see that several groups have shown

inventive and creative ways to keep unwanted developments out of their territory. During the last three decades, many indigenous groups went through a fast learning process. They started organizing themselves and creating alliances with actors that could support their cause. They now speak out on the internet and are increasingly finding an audience via national and international media. In Colombia, Ecuador and Peru, some indigenous groups are also becoming increasingly successful in obtaining recognition of their land rights (Gedicks, 2001:11).

A question that rises is why certain groups seem to be successful at dealing with the challenges that oil development forces them to confront, while others are not. Why were some groups forced to leave their ancestral grounds or even vanished completely, while others are successfully repelling negative influences from oil development? This research project will focus on this matter by investigating the relationship between the resilience of the indigenous groups and the impact that the oil boom had on them. In the next section of this chapter, the concept of resilience will be described in more detail.

### 1.3. RESILIENCE

As has become clear already, in this research project, the relation between the resilience of indigenous groups and the impacts of oil booms will be investigated. In order to give the reader a clear view on what the term 'resilience' means, in this last section of this chapter the concept will be discussed. It will be shown that resilience is a concept that is holistic, complex and cannot be viewed as a fixed characteristic of a system. After this, I will focus on the relationship between resilience and social-ecological and indigenous systems.

#### 1.3.1. The concept of resilience

Over time, sustainability problems, of which the current issue of oil drilling is an example, have been approached in different ways. Traditionally, researchers and policymakers assumed that finding 'the' equilibrium state of a system, whether an ecological system or a social one, would be the key to reaching sustainability. Solutions could be found by finding ways to simplify systems and reducing the risk of unwanted developments. By looking at it in this way, sustainability is viewed as an end state that can be achieved by taking a set of predetermined steps.

Recently, the general way of looking at sustainability issues has gradually started to shift. Due to a growing interest for broader approaches to-, and solutions for sustainability issues, the so-called *systems approach* was introduced. The systems approach refers to a holistic view of the components, and interrelationships among these components in a system. Here, sustainability problems are seen as complex and dynamic systems problems. This is opposed to the earlier described traditional view of focusing on simplification, like the domestication of landscapes to increase production and decrease uncertainty (Folke et al., 2005:442, Berkes et al., 2003:1-2). According to the new approach, processes are seldom linear and predictable; instead the processes in ecology, sociology and other fields should be seen as nonlinear phenomena which will always have a certain level of uncertainty. Furthermore, it is recognized that social and ecological systems are interlinked and that the delineation between social and natural systems is artificial and arbitrary (Berkes et al., 1998:4)

In the systems approach, a critical factor in the management of the sustainability of processes is *resilience*. The resilience concept was introduced in the seventies as a way to understand nonlinear dynamics within systems, such as the processes in which ecosystems maintain themselves in times of change (Berkes et al., 2003:13). Resilience is not a concept that is defined easily. According to Carpenter et al. (2001:765-766), depending on its context, resilience can have multiple levels of meaning: as a metaphor related to sustainability, as a property of dynamic models and as a quantity that can be assessed in field studies of social-ecological systems.

Generally, that is, in all fields of application, resilience is concerned with the magnitude of disturbance that can be buffered or absorbed by a system without it undergoing fundamental changes in its functional characteristics (see figure 1.7 on the next page) (Berkes et al., 2003:14-15). In this context, a *disturbance* refers to '*any relatively discrete event in time that disrupts ecosystem community or population structure and*

*changes resources, substrate availability, or the physical environment'* (White & Pickett, 1985, in: Berkes et al., 2003:163).

For this research project I will now focus more specifically on resilience of social-ecological systems.

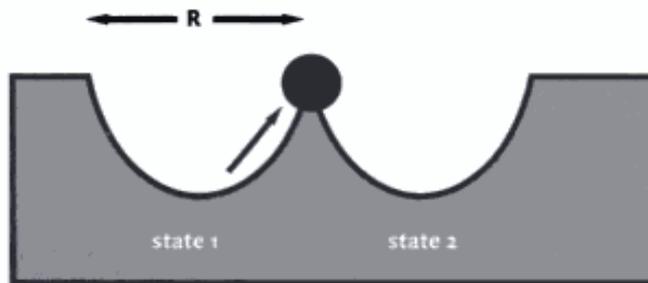


Figure 1.7. The resilience of a system. The resilience of a system is the amount of disturbance a system can absorb without passing a threshold and stabilizing at a new state (from state 1 to 2). In this picture the ball represents the system state. The system will remain in a certain state until the ball passes the threshold in the middle and rolls into the other cup, changing into a different state with different functional characteristics. Resilience is measured as the width of the stability domain (R) (Source image: Berkes et al., 2003:35).

### 1.3.2. Resilience of social-ecological systems

The indigenous groups that are the focus of this research project can be seen as integrated systems of people and the natural environment. Of course, in a sense all people could be perceived in this way, since we are all part of and interacting with the environment around us. But perhaps this concept is specifically applicable to these indigenous groups, since, unlike in the Western culture, for their survival they depend entirely on their direct surroundings and the interaction and connection with nature.

As applied to integrated systems of people and the natural environment, resilience has three defining characteristics. These are: 1) the amount of change the system can undergo while still retaining the same controls on function and structure; 2) the degree to which the system is capable of self-organization; and 3) the ability to build and increase the capacity for learning and adaptation (Resilience Alliance, 2008). In a social ecological system, two different types of disturbances can occur, which are natural disturbances, such as floods, insect outbreaks and forest fires, and human induced disturbances, of which oil extraction activities and the pollution that is linked to it are an example.

In resource management, conventional methods commonly seek to reduce natural variation in target resources. This is done because fluctuations are seen as problematic for economic production targets. However, experience has taught that change and variation are a part of the dynamic development of systems and social and ecological systems cannot be locked into a certain state. The policies that aim to do so will instead lead to an accumulation of disturbances and possibly eventually to a widespread crisis and loss of resilience (Berkes et al., 2003: 163, 356). In an ever-changing world, allowing disturbances to happen to a certain extent can actually be constructive for resource management. The occurrence of disturbances can be important for the capacity of systems to gradually adapt themselves to and shape change. However, this is only the case for systems with a high level of resilience and adaptability. This is because in these systems, the involved elements or actors have the capacity to reorganize their system after a disturbance. They can make constructive adaptations in order to be able to preserve a certain desired system state, now and in the future. (Folke et al., 2005:444). However, when a systems' resilience has decreased, the system becomes more vulnerable to small disturbances that it could previously adapt to. When this is the case, the system's resilience can decrease even further. There are three ways in which this could happen: 1) through the addition of key substances into the system, 2) through the removal of key resources or sources of resilience and 3) through the manipulation of keystone (ecological) processes by human intervention (Berkes et al., 2003:38).

A central feature of natural systems is that they are self regulating, and thus inherently resilient. Their capacity to deal with disturbances can be decreased, but it can also be enhanced. Functional diversity within a system provides it with the ability to persist in the face of change by increasing the likelihood of flexible and adaptive responses. For instance, if a system has a buffer of many natural enemies to a new invasive species, it is more likely that the population of the new species will be kept low, as well as its impact on other species of the system. In ecological systems, having a broad array of functions is linked to biodiversity. High biodiversity can be a source for adaptive ecological responses for systems by providing them with more flexibility in dealing with changes (Berkes et al., 2003:23, 366).

In social systems, diversity can play an important role as well. It provides a system with the ability to persist in the face of change, by spreading the risk amongst the different subparts of the system, which can serve as a buffer (Berkes et al., 2003:362). When the management of a resource is shared by a diverse group of stakeholders who operate on different scale levels, decision-making processes will be better informed and more options will exist to test a policy. A diverse and flexible set of management approaches in which the actors in a system can reorganize themselves can improve the resilience of the system as well. Diversity can also be stimulated in the management process itself, which can be designed as an experiment that encourages learning and the usage of different types of knowledge (Folke et al., 2005:444-448, Resilience Alliance, 2008). Resilience can further be increased when the process of knowledge acquisition takes place in the form of an ongoing, dynamic learning process. This process requires the effectiveness of the institutional frameworks and social networks. Creating platforms for dialogue and innovation following disturbances is key to learning and to resolving social uncertainties (Berkes et al., 2003:360,371). Different types of relevant information should be used to increase the knowledge and understanding of complex systems. Experiential and experimental types of knowledge are of equal importance, meaning that practice informs theory as well as the other way around. (Berkes et al., 2003: 355, 371). Research has also shown that a synergy between traditional and Western types of knowledge can result in adequate resource management models (Becker & Ghimire, 2003:9). Other research indicates further that practical lessons and different types of information that are acquired over the years are a crucial part of the social system and should therefore not be lost. A diverse set of experiences concerning management practices and rules, derived from practice should be stored. The memory of past social and ecological processes provides a framework of accumulated experience for management of changes. This source of memory provides a framework to deal with current and future developments in an adaptive and creative way (Berkes et al., 2003:362, 366).

The foregoing paragraphs have shown us that the eventual state a system will be in after a disturbance depends on two things. The *level* of disturbance will determine to what extent changes can *potentially* take place. I will try to make this clearer to the reader by describing a practical example. A flood that covers a large area with water for a couple of days has the potential to destroy the entire crop harvest grown by a certain community, and thus change the state of that system. However, the resilience of the system will determine what *impact* the disturbance will eventually have *in reality*. If resilience of the system is high because the community is growing a diverse set of crops, the effect on the harvest could be relatively limited, since part of the crops might be flood resistant and will survive. If there is a risk of flooding in the future, the community can focus more on the cultivation of flood resistant crops to increase food security. However, if the resilience is low because the community is growing a single, non-flood resistant crop, and does not adjust their agricultural methods, the harvest will be destroyed entirely. If the community has not created any alternative routes to supply its members with food in times of flooding, their system could even collapse entirely. Thus, in the scenario with low resilience the disturbance can more easily have a large impact on the eventual state of the system.

Let us now go back to the case of the indigenous communities in our study areas. The development of practices applied by the indigenous people to manage their social-ecological systems is a process that has taken place over centuries. The aim of these practices has always been to maintain a balanced and sustainable relation between humans and nature (Juncosa, 1992:32). However, when oil development started, its consequences created large and abrupt disturbances to these governance practices (Fundación Natura, 1996:124-202). These disturbances posed a new challenge to traditional practices to maintain the functions and vitality of the system that were desired by the indigenous groups. Different developments took place for different indigenous tribes. When the disturbances started to occur, some indigenous communities quickly learned to adjust their management or experimented with the application of new modes of governance.

Examples of these measures are the creation of ecotourism projects to increase the economic value of the area (Nación Cofán del Ecuador, 2008) and the formation of indigenous pressure groups like the Ecuadorian Confederación de Nacionalidades Indígenas del Ecuador (CONAIE) and the Peruvian Asociación Interétnica de Desarrollo de la Selva Peruana (AIDSEP). These communities thus far seem to be rather successful at retaining control on the structure and functions of their social-ecological system. Other tribes have not been able to adjust to or keep out unwanted influences, with devastating consequences. These communities eventually had no other choice to watch while oil companies entered their lands, polluting their rivers and soil. Some of the indigenous territories became uninhabitable, forcing the people to move to cities, where they now live at the bottom of the society. Some communities even ceased to exist because they did not survive the changing conditions.

A central question for this research is why some communities are still standing strong, while others have not been able to. It is important to find out which strategies or approaches that the indigenous groups have used in response to disturbances have been successful and which ones have not. This will be investigated by looking at the resilience of the indigenous groups, an approach that has not been taken to this topic yet. To do so it will be investigated what disturbances have taken place in the social systems of the indigenous groups, and if and how their resilience has determined the impact these disturbances had on them. A more detailed description about how this translates into the design and methodology of the research will be provided in the next chapter. It will be explained in more detail what the aim of the research is, which choices have been made in developing a research method, and which strategies are used.

## **CHAPTER 2. RESEARCH DESIGN**

### **2.1. CONCEPTUAL RESEARCH DESIGN**

This second chapter will explain the choices that have been made in developing a research method. In the first section of this chapter the focus will be on the conceptual research design. I will discuss what will be researched in this project and why this is done. The steps that will be taken in order to achieve this will be discussed in the second part of this chapter.

#### **2.1.1. Problem definition and research aim**

As we saw in chapter one, the systems approach and its related concepts of complexity and resilience are relatively new in sustainability science. A growing base of empirical research and observations has developed and with it gradually an increased understanding of these matters. However, this new, broader and more holistic way of looking at things still poses a lot of challenges to science. How to understand, predict or steer processes that are very complex, and are changing and developing constantly? A lot more empirical research, focusing on many different aspects on many different scale levels will be necessary to gain a broader understanding in how the systems on earth work. And even then, we will probably never be able to put all the pieces of this complex puzzle into place. However, even gaining insight in small aspects would be a major gain. I hope that this empirical research will therefore be a contribution to the general understanding of the complex dynamics of ecosystem-institution linkages, with an explicit objective to examine ways in which resilience influences the system's response to disturbances in times of change.

More specifically, little if anything is known about the resilience to changes of the social-ecological systems of the indigenous people in South America. It is therefore hoped that, by performing this research, new insights will also be gained in the ways in which these specific social systems can respond to oil extraction disturbances in a constructive way. Hopefully these insights can be used in the future for cases that are similar to the ones investigated for the research. Ideally, the research will provide indigenous groups clues that can be used to increase their own resilience when dealing with oil development.

#### **2.1.2. Research question**

The research project is focused around one main research question.

*What impact did the oil booms in Venezuela, Colombia, Ecuador and Peru have on the indigenous people in these countries, and in what way has their resilience determined this impact?*

The steps that will be taken to be able to answer this research question is depicted in the research framework on the following page.

### 2.1.3. Research framework

A general flow chart for this research project is outlined in figure 2.1. The specific components and procedures that are depicted in the figure will be described in more detail in the methodology section.

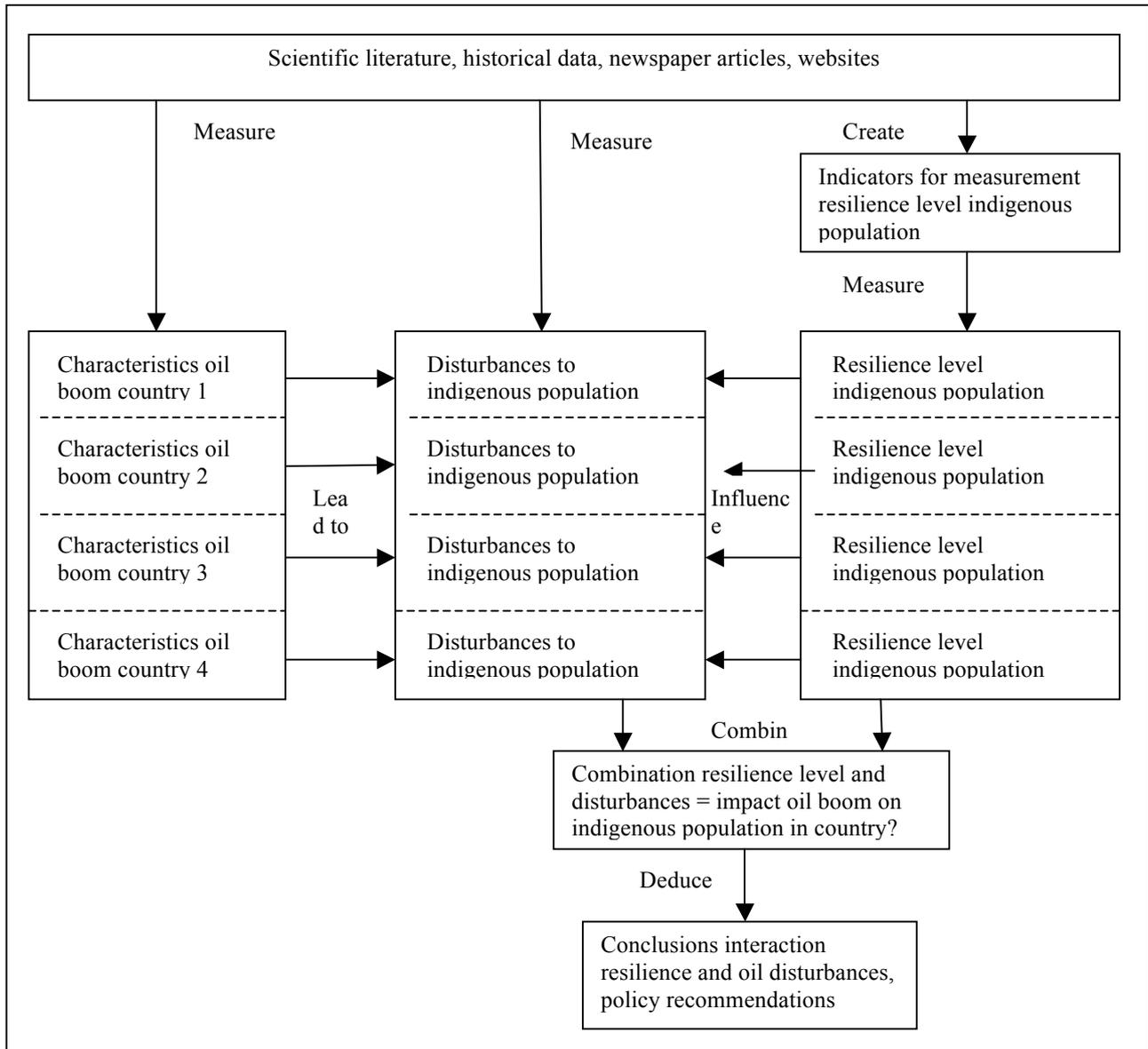


Figure 2.1. Research framework.

The research framework shows us that the research project will be based on several data resources, amongst which are scientific literature and newspaper articles. These sources are used for different purposes.

First of all I will look at country specific data. By doing this, the central features that make the individual cases unique can be explored, and it can be investigated what characteristics the oil booms in the four countries have had. How have the booms developed, what was their magnitude and which effects did they cause? A specific component of the characteristics of the oil booms is which disturbances they have caused to the indigenous populations in the countries. I will therefore investigate the social, economic and environmental disturbances that they have experienced.

As we have seen in chapter one, it is expected that the impact of the disturbances that are caused by the oil

boom on the indigenous populations are related to their levels of resilience. Therefore, the resilience of the indigenous population has to be assessed. This is done by the usage of proxy indicators for resilience, which are developed based on the scientific literature about resilience. These indicators will be described later in this chapter.

When both the disturbances and the resilience of the indigenous populations have been measured, it will be investigated if and how the level of resilience has influenced the impact of the disturbances caused by oil development. Does a high resilience level of the indigenous population absorb and/or buffer the negative impacts and stimulate positive impacts? And does it prevent indigenous systems from undergoing fundamental changes in their functional characteristics? It is hoped that based on the findings about this expected interaction between resilience and oil disturbances, some useful policy recommendations can be made.

#### **2.1.4. Hypotheses**

Based on what has been derived from the scientific literature, two central hypotheses have been developed.

In chapter one it has become clear that according to literature, what state a (social) system will eventually be in after a disturbance, depends on two things. The *level of disturbance* will determine to what extent changes can potentially take place in the system. However, the resilience of the system will determine what *impact* the disturbance will eventually have in reality, and what changes will take place in the system. Therefore, applied to the social systems of indigenous populations in the four countries under study, and their relation to oil, I have developed the following hypotheses.

*If the resilience level of the indigenous people in a country is high, it will have caused an absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts and vice versa.*

*If the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa.*

#### **2.1.5. Definitions of concepts**

In this section, as an extra means of clarification I will provide definitions of the most important concepts of this research project.

Disturbance:

*'Any relatively discrete event in time that disrupts ecosystem community or population structure and changes resources, substrate availability, or the physical environment'* (White & Pickett, 1985, in: Berkes et al., 2003:163).

Dutch disease:

*'A process whereby new discoveries or favorable price changes of natural resources cause distress in other economic sectors, like agriculture or manufacturing'* (Karl, 1997:5).

Economic rent:

*'A gap [...] that exists between the value of the resource and the cost of extracting it'* (Humphreys et al., 2007:4).

Indigenous people:

*'Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-*

*dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems'* (UN Secretariat of the Permanent Forum on Indigenous Issues, 2004:2).

Institutions:

*'Structures and mechanisms of social order and cooperation governing the behavior of a set of individuals within a given human collectivity. Institutions are identified with a social purpose and permanence, transcending individual human lives and intentions, and with the making and enforcing of rules governing cooperative human behavior'* (Wikipedia, 2010 (4)).

Oil boom:

The rapid development and prospering of the oil industry in a certain area.

Oil exploitation:

The process whereby oil is extracted from below the earth's surface.

Oil exploration:

The search process for finding new oil deposits below the earth's surface.

Oligopolization:

The domination of the oil market by a small number of sellers.

Resilience:

As applied to integrated systems of people and the natural environment, resilience has three defining characteristics, which are: 1) the amount of change the system can undergo and still retain the same controls on function and structure; 2) the degree to which the system is capable of self-organization; and 3) the ability to build and increase the capacity for learning and adaptation (Resilience Alliance, 2008).

Resource curse:

The failure of resource-rich countries to benefit from their own natural wealth.

Traditional knowledge:

*'Knowledge specific to a given culture or society. The development of traditional knowledge is a dynamic process that changes with the availability of resources and the demands of local communities. Traditional knowledge is acquired by local people through the accumulation of experiences and informal experiments, and through an intimate understanding of the environment in a given cultural context. Traditional knowledge can be an information base for a society, facilitating communication and decision making, and serving as a foundation for local institutions. Most of the time, it is transferred orally'* (Becker & Ghimire, 2003:1).

## **2.2. TECHNICAL RESEARCH DESIGN**

In this section the technical research design of the project will be discussed. Here, I will answer the question of what needs to be done effectively in order to arrive at an answer to the research question.

### **2.2.1. Research strategy**

The project is set up in the form of a comparative case study research. The selection of specific cases in case study research has two objectives, which are firstly to find a representative sample, and secondly to have useful variation on the dimensions of theoretical interest. The research strategy I use is the 'typical case study' research method. The typical case study *'focuses on a case that exemplifies a stable, cross-case relationship. By construction, the typical case may also be considered a representative case, according to the terms of whatever cross-case model is employed. [...] Because the typical case is well explained by an existing model, the puzzle of interest to the researcher lies within that case. Specifically, the researcher wants to find a typical case of some phenomenon so that he or she can better explore the causal mechanisms*

*at work in a general, cross-case relationship'* (Gerring, 2008:299). In this case a general model about resilience also exists already. In this research I want to find out if and how resilience has been at work in specific cases, which are four indigenous populations that are confronted with oil development.

Four cases, which are the indigenous populations in the countries Venezuela, Colombia, Ecuador, and Peru are studied intensively. Unfortunately, it cannot be expected that a case study research with a small number of cases can offer knock-out evidence for a theory (Gerring, 2007:236). I indeed do not expect or claim this research will provide knock-out evidence in terms of the general relationship between indigenous peoples, their resilience and the impact of oil development. However, the case study approach does provide extensive, in-depth information on this topic for these specific indigenous populations and can hopefully give us more insight in possible causal relationships for these specific cases.

The practical strategy that I use to conduct this research project is a literature study. The data source that I employ for the research will therefore be written data. I have chosen the literature study research because in this case it is simply impossible to purely base the research on for instance observatory data or other direct sources. For reasons such as a lack of time and financial means, and the limited scope of this research project, it is impossible to conduct a field research visiting the four focus populations. Since communication via the internet or other means with most indigenous groups is difficult or impossible as well, due to their remote living conditions, I will have to base a large part of my research on what has been written by others before me. The completeness and profoundness of the research will for this reason depend on the availability of useful secondary data sources. As a researcher, I recognize that this approach carries the potential risk that the results could be biased to a certain extent, or that I will portray an incomplete picture.

When one wants to determine the impact of a process and its relation to other factors over time, in this case the oil booms and the resilience of indigenous people, it is required to measure how the process developed over time. For this reason, the research cannot just measure the state of certain variables at one moment, but will look at them over the entire period of time in which the process (the oil boom) took place. For this reason, this research is partially a historical research project.

### **2.2.2. Research material and data collection**

For this research project the impact of the oil boom on the indigenous population in the four focus countries will be investigated. As I have mentioned, this will be done by firstly investigating the characteristics of the four oil booms and the disturbances they have been causing, secondly determining the resilience of the indigenous population and finally linking the two together, which will hopefully show us if and how resilience determined the impact of the disturbances. The data that I collect that will enable me to perform this research primarily takes place in the form of a literature study, as well as in the form of some expert interviews/surveys. The data that is needed to make it possible to answer the research question will come from different sources:

- General scientific literature about resilience, oil booms and the resource curse.
- Scientific literature about the indigenous populations, their resilience and the oil booms in the four specific countries of study.
- Other data sources, such as newspapers, books, and websites.

I acknowledge that that the data that is accessible for this project is limited, especially detailed information about specific indigenous groups and their resilience. Even though indigenous communities have been organizing themselves and are using media and digital communication means, it is still a group for which relatively little data exists. Therefore, in a very strict sense the results from this research cannot entirely cover the indigenous population of a country, since it is likely that there are communities about which no (reliable) data exist, or that are perhaps not even known to men. However, with the use of multiple types of data sources and the additional expert interviews I hope that most information gaps will be closed as much as possible.

### 2.2.3. Sample strategy

When one performs research on a macro level, where the samples consist of the indigenous population of different countries, it speaks for itself that intervening variables cannot be held as constant as for example in a laboratory experiment. Countries and their corresponding inhabitants are units that develop constantly and are linked to all kinds of external factors and influences. The intervening variables can therefore not be held constant. As we have seen, the countries on which this research focuses are Venezuela, Colombia, Ecuador and Peru. These four countries are chosen because they are very similar to one another in many different areas. There are many similarities found between them in factors like their geographical location, their colonial past, the development of their economies, and the groups that are directly and most intensely influenced by oil extraction, of which the large majority consists of indigenous people. In this way, external variables are held relatively constant. However, it has to be acknowledged that in certain areas, important differences exist between the countries, which will pose a challenge to the comparability to a certain extent and might influence the results of the study. One of the most important variables that cannot be held constant is that the indigenous populations in the countries are not of the same size everywhere. For instance, while the indigenous population in Ecuador consists of between thirty and forty-three percent of the total population, in Venezuela it is estimated to be only around two percent (Yashar, 2007:21). Obviously, I cannot change the fact that this large difference exist. What I can and will do is take this fact into serious consideration when analyzing the results. On a positive note, these inevitable differences can make the cases livelier and provide us with other, interesting results and insights.

### 2.2.4 Operationalization of disturbances caused by oil development

The measurement of the disturbances experienced by indigenous people that are caused by oil development will mostly take place in a descriptive manner. The oil booms in the four countries under study have developed very differently and in different contexts, resulting in different disturbances in different cases. Unfortunately, these can disturbances generally cannot be analyzed or compared in a quantitative fashion, nor can they be measured using self-made indicators. There are no databases that can provide us with quantitative data on a national scale about disturbances caused by oil development. What does exist is a large set of small-scale investigations, government measurements, NGO reports, and other types of data resources. These sources combined can provide the current research project with a solid base of (mostly descriptive) data. I have thus decided that the disturbances caused by oil development will be described qualitatively. To do this in a logical and orderly fashion, for each of the four countries, the description of the disturbances will be divided into different sections, focusing on the disturbances in the *social*, *economic* and *environmental* fields (see figure 2.2 on the next page). I will strive to find data that can be compared relatively easily, but practice will show that this cannot always take place in an ideal fashion.

<i>Disturbance type</i>	<i>Measurements</i>
	<i>Did oil development disturb:</i>
Social	<ul style="list-style-type: none"> <li>- living conditions/lifestyle of indigenous communities</li> <li>- safety of indigenous communities</li> <li>- health of indigenous communities</li> </ul>
Economic	<ul style="list-style-type: none"> <li>- the type of economic system used by the indigenous communities</li> <li>- the functioning of the economic system used by indigenous communities</li> <li>- the access to material means</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>- biodiversity in indigenous communities</li> <li>- water/soil quality</li> <li>- fragmentation/destruction of natural areas</li> </ul>

Figure 2.2. Operationalization of the disturbances caused by oil development

### 2.2.5. Operationalization of resilience indicators

No fixed set of indicators for the measurement of resilience exist. Furthermore, it has to be acknowledged that resilience is a very complex concept that can have multiple levels of meaning, depending on its context. Therefore, for this research the only way to measure resilience of the indigenous population will be by use of a set of self-designed proxy indicators.

In the literature a large array of factors that can maintain or improve the resilience of systems is mentioned. For this research project, I have selected the most important and relevant from these and have organized them into groups. The three main factors are institutional diversity, knowledge, and social- and ecological memory. These factors will be described in this section, their foundation in literature, as well as the proxy indicators that I will use as a measurement for the factors. The indicators will be focused on measurement at a national level, but will be supplemented where possible or relevant, by specific information about certain cases at the local level.

#### Resilience factor 1. Institutional diversity

Description factor	<i>Institutional diversity.</i> A diverse set of functions in a system increases the system's resilience. It provides it with the ability to persist in the face of change, by spreading the risk amongst the different subparts of the system which can serve as a buffer (Berkes et al., 2003:362). In managing social-ecological systems, institutional diversity is crucial. Having a diverse set of actors, functions, approaches and resources at one's disposal increases the resilience of the system (Resilience Alliance, 2008). Furthermore, a form of management is required that deals with the unpredictable interactions between and within systems in a flexible way. In this context systems should use adaptive management and so be flexible systems tailored to specific places and situations, and they should be supported by and work with various organizations at different levels. The flexible structure allows for learning and ways to respond to and shape change (Folke et al., 2005:448).
Proxy indicator a	<i>The creation of new institutions and their diversity.</i> I will investigate to what extent, and what types of new institutions have been developed by the indigenous groups as a reaction to the oil boom (e.g. NGO's, pressure groups, work groups, think tanks).
Proxy indicator b	<i>Linked secondary institutions.</i> I will investigate to what extent links (related to their policy about the oil boom) indigenous groups have made outside of their own institution with. Examples are:  <ul style="list-style-type: none"> <li>– National and international NGO's</li> <li>– Government bodies</li> <li>– National and international media</li> <li>– Universities and think tanks</li> </ul>
Proxy indicator c	<i>Diversity of resources/ means.</i> A diverse set of useful resources and means can give indigenous groups more policy options and flexibility towards changes. I will therefore investigate which resources and/or means the people have obtained or created that have been necessary or desired because of the changes that have happened due to the oil boom (e.g. monetary income, political influence or human capital).
Proxy indicator d	<i>Diversity/ flexibility of management and policies.</i> Well-organized indigenous groups, which use flexible approaches to change and that are closely connected to the resource system, can be in a good position to adapt to and shape change (Berkes et al., 2003:380). However, these groups should be aware that dealing with resilience means dealing with cross-scale dynamics. Interactions take place between key variables operating and at distinctively different scales (Berkes et al., 2003:378). It should be recognized that there is interplay between reducing the impact of change

	and at the same time taking advantage of the opportunities created by change. Systems in which change is not allowed will almost certainly face crises sooner or later. Systems that allow too much change and novelty will suffer a loss of social and ecological memory (Berkes et al., 2003: 376). For this proxy indicator, the management practices of the indigenous social systems will be studied. I will investigate whether, and if so, how management has been able to deal with changes in the past. I will research the diversity and flexibility of approaches that have been used, as well as whether ineffective past management practices have been adjusted.
Expected relation	It is expected that if the indigenous groups in a country generally show a high score on all or most of the aforementioned indicators, the diversity of the indigenous groups should be considered as high as well. High diversity will increase the level of resilience of the systems.
External variables	The extent to which institutions can be created and develop themselves does not only depend on the groups of people creating them themselves, but clearly also on the social, economic and political context in which they do this. Social, legal and political pressures can stimulate or hinder these developments. For example, the fact that many Indians in Colombia, Peru and Ecuador have recently made substantial gains in recognition of their land rights (Gedicks, 2001:11) can give them a strong legal means they can use for their cause. Corruption and a lack of abidance to the law can form an impediment. For instance, in Colombia, the National Police forces have attacked and killed peaceful protesters protesting against new oil developments (Gedicks, 2001:55). When people fear for their lives they are inhibited to openly form groups to protest developments.

## Resilience factor 2. Knowledge

Description factor	<i>Knowledge</i> . Resilience is increased when the process of knowledge acquisition takes place in the form of an ongoing, dynamic learning process. This process requires the effectiveness of the institutional frameworks and social networks. Creating platforms for dialogue and innovation following disturbances is key to learning and to resolving social uncertainties (Berkes et al., 2003:360, 371). Different types of relevant information should be used to increase the knowledge and understanding of complex systems. Experiential and experimental types of knowledge are of equal importance, this means that practice informs theory as well as the other way around. (Berkes et al., 2003: 355, 371). Research has also shown that a synergy between traditional and Western types of knowledge can result in adequate resource management models (Becker & Ghimire, 2003:9).
Proxy indicator a	<i>Transfer of knowledge</i> . I will investigate whether, and if so, to what extent knowledge is spread within the borders of the social-ecological system. Effective transmission of knowledge makes sure that information can easily be transported to crucial players. Transfer of knowledge can take place through means such as schools, universities, meetings or fora.
Proxy indicator b	<i>Diversity of types of knowledge</i> . I will research whether different types of knowledge is used, looking specifically at the usage of: – Experiential vs. Experimental knowledge (Berkes et al., 2003: 355, 371) – Traditional vs. Western types of knowledge (Becker & Ghimire, 2003:9)
Expected relation	It is expected that if the indigenous groups in a country generally show a high score on the aforementioned indicators, this will increase the level of resilience of their social systems.
External variables	Certain processes or characteristics can influence the transfer of knowledge of groups of people. If the government censors certain types of information or makes them hard to access, this will impede the transfer of knowledge for local groups. For instance in Venezuela, opposition claims that the government is attempting to enlarge its role in

	the control of broadcasts content. According to Human Rights Watch certain articles of the Venezuelan Law on Social Responsibility of Radio and Television could result in open political censorship to freedom of speech. <i>“Blaming President Chavez or the Venezuelan government for the current bitter divisions in Venezuelan society, the bad economy, a sudden poverty growth and deaths in opposition demonstrations could result in an infraction of the law and therefore in strong penalizations (if the offense is 'interpreted' or considered disrespectful towards legitimate institutions and authorities)”</i> (Wikipedia, 2009II).
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### Resilience factor 3. Social and ecological memory

Description factor	<i>Social and ecological memory.</i> Research indicates that practical lessons and different types of information that are acquired over the years are a crucial part of the social system and should therefore not be lost. A diverse set of experiences concerning management practices and rules, derived from practice, should be stored. The memory of past social and ecological processes provides a framework of accumulated experience for management of changes. This source of memory provides a framework to deal with current and future developments in an adaptive and creative way (Berkes et al., 2003:362, 366).
Proxy indicator a	<i>The storage of information.</i> Storage of knowledge can take place in the form of e.g. libraries, websites, and databases. I will investigate if, and to what extent these facilities or institutions have been formed.
Expected relation	It is expected that good storage procedures and the usage of proper storage facilities increases the resilience of the system. Also, a link exists between the previous factor, knowledge, and social and ecological memory.  Furthermore, a positive score on the previous proxy indicators for the factor knowledge can further increase the positive influence of this factor, provided that it is stored well.
External variables	The possibility of the creation and usage of storage facilities can be encouraged or restrained by many different factors. For instance, if an indigenous community has no financial means or technical skills, it will not be able to create a website. Also, if censorship is common in a country, a government can limit the possibilities for storage of information.

Note that not all factors have the same amount of proxy indicators; social- and ecological memory for instance only has one. The main reasons for this difference is that for some factors one or two proxy-indicators can cover the subject, and that (using the chosen research method), there are only limited ways in which certain factors can be measured.

#### 2.2.6. Analysis of impact of oil boom on indigenous population

As we have seen in the research framework in figure 2.1, in order to analyze what impact the oil booms in the four countries have had on their indigenous people, and in what way resilience has determined this impact, two outcomes will have to be combined. It is expected that the impact of the disturbances caused by the oil boom on the indigenous populations depends on their resilience. During the analysis of the impact of the oil boom on indigenous people it can be found out whether the hypotheses can be confirmed. Does a high resilience level of the indigenous people indeed absorb and/or buffer the negative impacts and stimulate positive impacts? And does it also prevent indigenous systems from undergoing fundamental changes in their functional characteristics?

To analyze this per country, I will combine and compare the outcomes for the measurements of the disturbances caused by oil development and the measurement of the resilience level of the indigenous

population. This means that, when looking back at the research framework in section 2.1.3, this part of the research focuses on the arrows between resilience level of the indigenous population and disturbances to the indigenous population. This (mitigating) effect of resilience on the disturbances will lead to a certain level of impact of the oil booms on the indigenous populations. An example of this effect can be as follows. A situation could be that the indigenous population of a country has created an extensive international network for its cause, which is to limit all negative effects of oil development for indigenous peoples. The indigenous population and the international network have commonly pressured the international oil companies to apply stricter environmental standards for their operations. Due to the increasing pressure the company was facing, it now is indeed applying stricter standards. For this reason, environmental damage caused by the company is now limited. Thus, in this case, (an aspect of) the resilience of the indigenous population has decreased the negative impact of the oil boom in the country.

## **CHAPTER 3. VENEZUELA**

### **3.1. INTRODUCTION**

In this chapter, I will discuss the first of the four countries of this research project, which is Venezuela<sup>1</sup>. It will become clear that Venezuela has a very long history of oil development, with its first documented usage dating back all the way to the sixteenth century. The country's oil boom started almost a century ago and over time the substance has become a very important part of its economic system and society. Despite the fact that oil development is very important to Venezuela, it has caused many social and environmental problems, especially for indigenous people and other local groups. Recently, the indigenous people of Venezuela have started to explore new ways to retain their lands, their culture and the environment on which they depend.

In each of the chapters that describe the four countries that are studied, I will use a similar structure of writing. In order to make a clear assessment of the impact that the oil booms in each of the countries have had on their indigenous peoples, and in what way their resilience has determined this impact, certain aspects will be investigated and described in different sections. I will do this as follows. In the second section of this chapter, the development of the oil boom will be discussed, as well as the political, social, economic and environmental changes it has caused. In the third section, the different indigenous groups of Venezuela will be introduced, as well as the disturbances caused by oil development which they have experienced. Several specific cases of different indigenous groups will be discussed. In the final section of the chapter the resilience of the indigenous groups will be discussed. I will do this by using the resilience indicators that were set out in the previous chapter. Lastly, the impact that the oil boom has had on the indigenous groups of Venezuela will be laid out. Throughout the different sections I have added textboxes with specific important cases or aspects in order to provide the reader with deeper, and perhaps more colorful insights in the topics that are discussed. Conclusions and a discussion about all of the aforementioned topics will be presented in final chapter, chapter seven, of this thesis.

### **3.2. THE OIL BOOM**

#### **3.2.1. The political and economic context prior to the oil boom**

In this section of the chapter, the focus will be on the political and economic context prior to the development of the oil boom in Venezuela. Especially during the last five hundred years, South America's history has been full of turbulent changes, and Venezuela is no exception to this rule. In order to understand recent developments and the development of the oil boom in the country, it is important to first pay attention to the earlier historical context.

Archeological evidence shows us that Venezuela has been inhabited by many different tribes for thousands of

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<sup>1</sup> Oil development, and especially the disturbances it has caused, is a sensitive topic in almost any oil producing country. Apart from the people that are experiencing the negative consequences of it, governments and businesses are generally not very open about this topic. This most likely limits or distorts the availability of data about this topic significantly, which should be kept in mind while reading this thesis. Venezuela seems to be a special case on this matter, and this should therefore receive some attention before starting the analysis. Although officially the members of the media have been able to express strong views without any restrictions, the reality has been different. Also now under Chávez's rule, journalists or writers expressing unpopular opinions are often subject to aggression and intimidation. Chávez's government does not defend press freedom. By expanding and increasing penalties for speech and broadcasting offences, critics have a strong incentive to engage in self-censorship. In 2004, a government bill was passed on the so-called 'social responsibility' of radio and television stations. The bill imposed excessive restrictions on the content of these media and related penalties for violations (Human Rights Watch, 2008). Due to these circumstances, information about certain topics that are analyzed in this research does not exist or might be biased.

years. No monumental large groups that were living in other parts of South America, like the Incas or Mayas have inhabited its lands. Instead, there was a large variety of independently minded tribes. Some of these lived a nomadic lifestyle, while others settled and developed complex agricultural technique (New Internationalist, 2010).

Christopher Columbus set foot on Venezuelan soil in 1498. A year later, Alonso de Ojeda and Amerigo Vespucci arrived at Lake Maracaibo, where the houses in which indigenous peoples lived were built on stilts above the water. For this reason they called the community Venezuela, or 'little Venice'. The Spaniards that settled in the country found out, to their discontent, that there was not much gold to be found. For this reason Venezuela remained of relatively little importance to them (Palmerlee et al., 2007:974-975). Venezuela's value to Spain was its long coastline, which offered protection for the Spanish fleet. The Spanish used the indigenous people as slaves, which fuelled protests and war (New Internationalist, 2010).

At the beginning of the nineteenth century, Venezuela became the center stage of one of Latin America's heroes, the Venezuelan Simón Bolívar. Bolívar led a revolution against the Spaniards which he started in 1806. Bolívar initially failed to liberate Venezuela and withdrew to Colombia and later Jamaica to set up his final battle. In 1817 he liberated Colombia. He then proclaimed Gran Colombia as a new state, unifying Venezuela, Colombia and Ecuador. However, at that time Venezuela and Ecuador were still under Spanish control. It took until 1821 before Venezuela was liberated. Colonial rule had now ended from Venezuela to the borders of Argentina. Gran Colombia came into existence, but only lasted for about a decade before it was split into separate countries again (Palmerlee et al., 2007:975).

After independence, for nearly a century Venezuela was ruled by several different warlords, known as *caudillos*. Only in 1947 the first democratic government was elected. The first caudillo was General José Antonio Páez, who ruled from 1830 to 1848. His rule was very tough, but he did manage to create some political and economic stability. A period of civil wars followed after this, which was eventually ended in 1870 by another dictator, General Antonio Guzmán. Guzmán ruled for eighteen years. During this period there was some temporary stability, but his despotic rule caused large opposition and when he stepped down civil war continued again (Palmerlee et al., 2007:975).

In the first half of the twentieth century instability and dictatorship continued in Venezuela. During that time the country was ruled by five successive military rulers. In 1899 General Cipriano Castro and his army occupied the capital. Then, in 1908 General Juan Vicente Gómez seized power. This so-called 'Tyrant of the Andes' was of the opinion that dictatorship suited the primitive non-white people living in Venezuela. The racist book 'Democratic Caesarism' written by Laureano Vallenilla Lanz became the official government ideology (New Internationalist, 2010). In this same period oil development started to expand.

### **3.2.2. The development of the oil boom**

Extraction of oil has been taking place for a very long time in Venezuela. The first reference of oil extraction stems from 1539, when a barrel of oil was sent to Spain at the request of King Carlos V (Hausmann & Rodríguez, 2007:10). However, Venezuela's oil boom started centuries later in 1914, with the discovery of large amounts of oil in Mene Grande, in the western part of Venezuela (Tinker Salas, 2009:3).

The development of the oil boom in Venezuela can be divided into several phases. The first phase began in 1914, and lasted until the Great Depression. Oil development started slowly during the first few years of the boom, but soon it expanded rapidly. During this phase the first of many cycles of growth and contraction of the industry started. During the second phase, which extended from the Great Depression through the Second World War, oil development expanded greatly. The drivers of this expansion were the presence of important resources and the closeness to the main market for oil, the United States. These conditions, along with a relatively stable framework for oil companies, soon turned Venezuela into the third largest producer (after the United States and the Soviet Union) and the largest exporter of oil in the world at that time. Oil development was characterized by '*oligopolization*', or the domination of the oil market by a small number of sellers. During this period only three foreign oil producers controlled the Venezuelan oil market. From the early 1930s on, the threat of the approaching war created a new urgency for restructuring of the Venezuelan oil

industry. During the third phase, which started in the 1950s, institutionalization of the oil industry took place. Relations between the government, foreign companies, labor and Venezuelan society normalized (Tinker Salas, 2009:3).

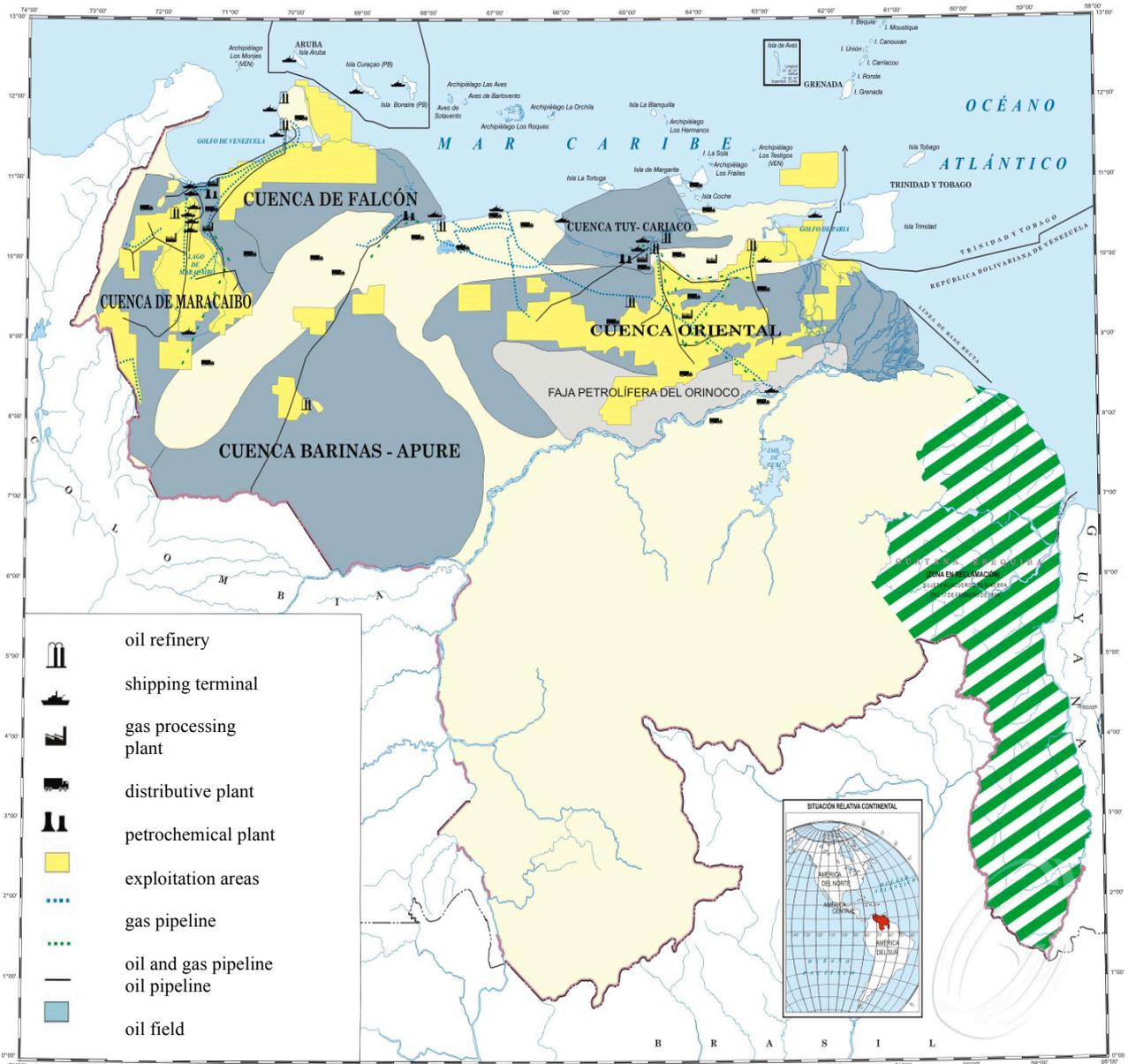


Figure 3.1. Oil and gas development in Venezuela in 2003 (adjusted from Hung Petroleum, 2010).

The levels of oil production have fluctuated a lot over time. At several points of history production decreased drastically and other oil producers surpassed Venezuela’s leading position (Hausmann & Rodríguez, 2007:10-27). Oil has now become the main source of income Venezuela is depending on. Currently, Venezuela is still the tenth largest oil producer in the world (Central Intelligence Agency, 2010). Oil production is concentrated in the northern half of the country, where large oil reserves can be found (see figure 3.1). Currently, an astonishing eighty percent of the total export of the country is accounted for by oil (Energy Information Administration, 2010). Almost every aspect of society is now in some way or another linked to oil.

### 3.2.2.1. Political processes and changes

During the first part of the twentieth century five successive military rulers were leading Venezuela. Vicente Gómez was in power the longest. His ruthless rule lasted from 1908 to 1935. In order to monopolize power

he phased out the parliament and crushed the opposition. When the exploitation of Venezuela's huge oil reserves began in 1914, this strengthened Gómez's financial hand. In the late 1920's Venezuela became the world's largest oil exporter in the world. Between 1920 and 1935 the share oil had in the country's exports increased from 1.9% to 91.2% (Gilpert, 2003). However, almost none of the oil wealth that was created went to improving the conditions of ordinary citizens. Most Venezuelan's continued to live in intense poverty with no facilities like schools, hospitals or reasonable housing. Furthermore, an instable pattern developed in which other production sectors in Venezuela, such as agriculture, stalled. Because there was a lot of fast oil money available, it was perceived as easier to import products from abroad. This strategy soon proved to be unsustainable, however (Palmerlee et al., 2007:975). Gómez died in 1935, at the age of 79. His death was followed by the slaughter of his family members and collaborators.

In 1947 a new coup took place, led by Colonel Marcos Pérez Jiménez. Pérez Jiménez made opposition impossible and used most of the oil money for public works and the modernization of the capital, Caracas. In 1958 he was overthrown by a coalition of civilians and military officers. A general strike paralyzed the country, which Pérez Jiménez could not control. Eventually he fled the country with a suitcase full of money. At this point the country returned to democratic rule. A former opponent of Gómez, Rómulo Betancourt, was democratically elected as the new president and he enjoyed broad popular support (Tinker Salas, 2009: 223; Palmerlee et al., 2007:975-977).

Oil money continued to be an important focal point for governments well into the 1970s. Production rose sharply and the oil price increased fourfold because of the Arab-Israeli war in 1973. Instead of primarily focusing on issues such as poverty relief, in this period a lot of oil money was spent on the import of luxury goods and the construction of modern skyscrapers in Caracas. However, in the late 1970s a decline set in, lasting through the 1980s (Palmerlee et al., 2007:977).

In 1992 two coups d'état took place. The first one was led by paratrooper Colonel Hugo Chávez Rivas. The second attempt took place later that year, led by junior air force officers. Many people died during both attempts. Government of the mid-1990s was characterized by corruption, loan defaults and bank failures. In 1995 Venezuela's currency was devaluated by seventy percent. By the end of 1998, two-thirds of Venezuela's inhabitants were living below the poverty line (Palmerlee et al., 2007:977).

During the 1998 election Chávez made a comeback and was elected president. He started a populist campaign, promising help to the poor with oil money and positioning himself in opposition to the US-influenced free-market economy. His goal was to start a peaceful and democratic social revolution. However, this revolution turned out to be not as peaceful as hoped for. In 1999 Chávez granted himself extra power with the rewriting of the constitution. The introduction of certain new laws was followed by mass protests and a large, violent strike in 2002. A coup d'état followed, led by military leaders and sponsored by important business people. Chávez was forced to resign but regained power two days later. Chávez remained popular with part of the population, but tensions within Venezuela remained high. In December of 2002 a nationwide strike was held that lasted for sixty-three days and paralyzed the country. The strike damaged the oil industry greatly and had cost the country 7,6% of its GDP. Chávez's government survived the strike and continued ruling (Tinker Salas, 2009: 233; Palmerlee, 2007:978; BBC News, 2002).

In 2004 a referendum was held to recall Chávez, which he won. Since then, he has been aiming to create a Latin American political block as an alternative to US hegemony in the region. Chávez has expanded his influence beyond Venezuela and has created ties with other leftist leaders in Latin America. He now also has the reputation of outspoken opposition towards the US, which was especially manifest during the Bush office (Palmerlee, 2007: 978).

After an attempt two years earlier, in 2009 Chávez won a referendum to eliminate term limits for his rule, allowing him to stay in office indefinitely. However, opinion polls that were held at that time show high levels of discontent among the Venezuelans over inflation, crime, infrastructure and water and power shortages. In one poll sixty-six percent of the people said that they did not want Chávez to stay in office after his term ends. (The Economist, 2009; Miller Llana, 2009).

Opinions about Chávez's rule differ greatly. Some characterize him as democratic, others as authoritarian. However, most seem to agree that Chávez's main focus is on lifting the poor in Venezuela out of their

misery. He therefore also receives large support from the poorest people in the country. Chávez has provided subsidized food to the poor, has redistributed land and wealth, and has used oil money for health and education programs. In this way, he has created a shift in Venezuela's society, which was once dominated by the rich elite. However, unfortunately Chávez's attempts do not seem to have been very fruitful. During his rule, no improvements can be seen on most health and human development indicators (Rodríguez, 2008).

In a country where oil determines, influences and changes more of society than almost anywhere else in the world, what general impact has it had on national politics? As we have already seen, oil and the state have become intertwined in Venezuela. Karl (1997:184) describes this as follows. *“In the manner of a petro-state, rent seeking had become the central organizing principle of [Venezuela's] political and economic life, and the ossified political institutions in existence operated primarily to perpetuate an entrenched spoils system. Both state agencies and political parties had given up their programmatic roles to become machines for extracting rents from the public arena”*.

According to Wilpert (2003 (1) ) a consequence of the presence of oil has been that the political system turned into a 'pacted democracy'. He describes this as *“a democracy which is held together via an agreement among different elite groups. It is a kind of truce among opposing powerful interest groups in the society, so as to maintain their privileges”*. The 'Punto Fijo' was created, which was a pact in which all major parties were guaranteed to get access to power in proportion to the results of elections. Even if a certain party would win the presidential and legislative elections, oil profit would still have to be shared with the other parties, according to the electoral division. In this way conflict was minimized because all political parties (except for those excluded) had a guarantee to have access to jobs, ministries, contracts, etc. However, when oil rents started to decline in the mid 1980s, the Punto Fijo pact began falling apart. When Hugo Chávez was elected president in 1998 the pact was completely terminated.

Wilpert (2003) also notes that the fact that oil has been so important in Venezuela for decades already, has caused another change in politics by increasing political bureaucracy greatly. Of the people that are formally employed in the economy, about fifty percent are employed through the government.

### 3.2.2.2. Economic processes and changes

The first exploration and exploitation that followed the discovery of oil in 1914, initially took place at a very slow pace. Venezuela continued to rely on agriculture for subsistence and the government's reports of the

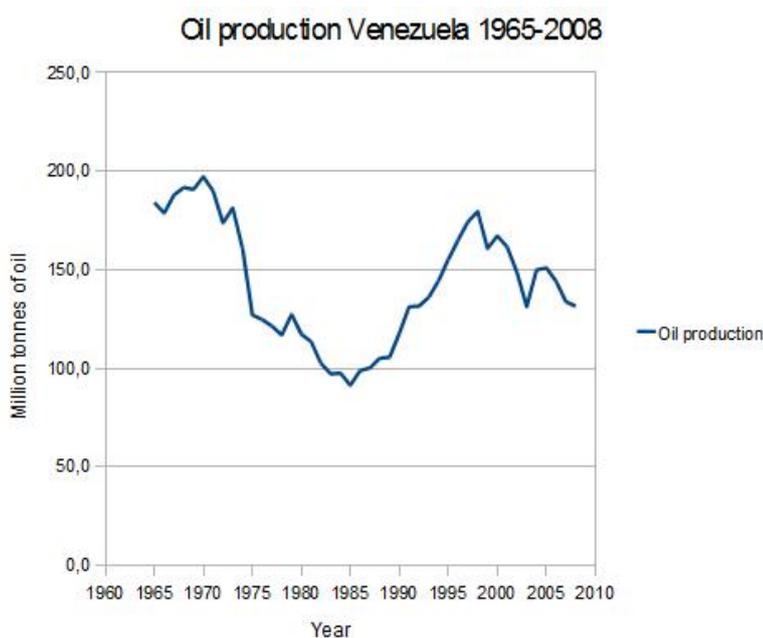


Figure 3.2. Oil production in Venezuela between 1965-2008. Based on BP, 2009.

early days of oil seldom mention any oil exports. In the early years of oil development, the first cycles of growth and contraction took place, of which many would follow later. (Tinker Salas, 2009:3, 53). However, after a period of some years, oil revenue and its exports started to rise enormously. Between 1920 and 1935 the share oil had in the country's exports increased from 1.9% to 91.2%. The central focus was now on oil, with the result that agricultural production started to decline enormously and the country fell behind in its industrialization process, also relative to other Latin American countries (Wilpert, 2003).

National Venezuelan oil policy was changed largely when the Hydrocarbons Act was passed in 1943. This reform made the link between the state's income and oil revenue a lot stronger. *“While previously oil income was mostly based on concessions and customs, the new*

*hydrocarbons act tied oil revenues to taxes based on income from mining. The law established that the foreign companies could not make greater profits from oil than they paid to the Venezuelan state. The continually increasing oil income led to an ever increasing reliance of the state on this source of income in lieu of individual income taxes”*(Wilpert, 2003).

When oil prices dropped strongly in the 1950s, as a global initiative of Venezuela and other oil producing countries, the Organization of Petroleum Exporting Countries (OPEC) was created. This organization has the aim to fix the price of oil on the international markets. In 1960 Venezuela also established the Venezuelan Oil Corporation, which would later form the basis for the nationalization of the Venezuelan oil industry (Wilpert, 2003). Mainly due to the Arab oil embargo in 1973, oil prices skyrocketed. Although production did not increase (see figure 3.2), Venezuelan oil revenues grew largely and government revenues grew enormously. The average rate of growth of government expenditures in the period 1974-1975 was 686 percent higher than in the period 1971-1973 (Karl, 1997: 195). With this extra money from oil president Carlos Andrés Pérez started a project called ‘La Gran Venezuela’ with which poverty would be eradicated and the economy diversified. Another aspect of the plan was the nationalization of the oil industry. With the creation of Petroleos de Venezuela (PDVSA) in 1976 the oil industry became fully nationalized. Negative economic consequences of this boom were chronic inflation and, paradoxically, increased indebtedness. In the 1980s these economic problems worsened when the oil price started to plummet because OPEC members broke their production quotas. In 1998 the oil price was at a new historical low of 3.19 dollars per barrel (in 1973 prices). This had a very large impact on Venezuela’s economy, especially on per capita income, which had been declining for years already (Wilpert, 2003). Venezuela’s currency devaluated, and the majority of the Venezuelans were living below the poverty line (Palmerlee et al., 2007:977).

The large oil revenues in Venezuela caused large problems in the fiscal policies of the Venezuelan government. The new revenues caused the government income to quadruple. Government spending quickly increased with it and even surpassed revenues from oil. When oil prices went down and revenues declined, it turned out to be difficult to reduce government spending. As a result, the foreign debts rose enormously. Between 1970 and 1994, Venezuela’s debt increased from 9% to 53% of the GNP. Thus, at the moment oil prices and revenues fell, so did per capita income and the Venezuelan economy as a whole. Poverty increased strongly. Venezuela was one of the very few countries in the world in which per capita income was lower in 1996 than it was in 1960 (Wilpert, 2003).

### 3.2.2.3. Social processes and changes

The presence of oil companies caused large social changes and a reorganization of the Venezuelan society as a whole. It created a clash of interests and values that still persists after almost a century of oil development. To some, the discovery of oil was a blessing. In 1936 Venezuelan writer Arturo Uslar Pietri wrote that oil wealth could be ‘sowed’ to diversify and expand the economy. However, after several peaks in production had not reduced inequality, minister at the time Juan Pablo Pérez Alfonso said that Venezuela was ‘sinking in the excrement of the devil’. Disillusionment about oil as a source for development of the country grew (Tinker Salas, 2009:237).

Wilpert (2003) states that the abundance of oil has caused a general ‘rentier’ mentality among Venezuelans. People have the idea that as long as you have access to Venezuela’s oil wealth, you will do well. Since the state and the oil industry are very strongly linked, Venezuelans generally tend to ally themselves with the state, seeking either employment or contracts from the state. Some commentators go even further in saying that because of the immense oil wealth, Venezuelans believe that their state appears to have magical powers, since it is able to accomplish almost anything at no cost to the population:

*“Thus transformed into a petro state, the Venezuelan state came to hold the monopoly not only of violence, but of the nation’s natural wealth. The state has exercised this monopoly dramaturgically, seeking compliance through the spectacular display of its imperious presence—it seeks to conquer rather than persuade. ... By manufacturing dazzling development projects that engender collective fantasies of progress, it casts its spell over audiences and performers alike. As a “magnanimous sorcerer,” the state seizes its subjects by inducing a condition or state of being receptive to its illusions—a magical state.”* (Coronil 1997, in: Wilpert, 2003)

Whatever the power of the Venezuelan state is, a fact is that oil wealth has for a long time generally only profited the rich elite. Venezuela's current leader Chávez claims and perhaps even really honestly tries to turn the tide and use the resource to create more equality and help the poor and disadvantaged. Opinions about the intentions of Chávez differ greatly. However, it turns out that during his rule, human development indicators have shown no significant improvement. Some social and health indicators have even deteriorated, and according to official estimates income inequality has actually increased (Rodríguez, 2008).

Another important point is that oil development has caused large demographic changes in Venezuelan society. According to Miguel Tinker Salas (2009: 47, 60-62), it has led to mass migration. Many Venezuelans as well as foreigners from all over the world moved to the north of Venezuela, in many cases settling in indigenous territories. Especially in the early years, the Venezuelan government did not impose any restrictions on the number of foreigners who sought employment in the industry. At the harbor in Maracaibo ships full of people who were looking for work arrived on a daily basis. For instance, in 1926 in this area the population of the city of Maracaibo had doubled in six years to eighty thousand. In the year 1928 alone the government allowed another 23,805 people to settle in the region.

Indigenous people and other locals did not only lose large part of their lands to migrants, but also directly to the oil companies. Because no clear, legal land titles existed, oil companies used these conditions to their benefit. If a local would lose his land and would demand an oil company to at least compensate for this, the company would generally get away with ignoring this because of the lack of written records about land title. Furthermore, with a government that saw oil production as its top priority, in these cases local government officials would usually back up the oil company (Tinker Salas, 2009:45).

According to Tinker Salas (2009:7), the fast expansion of the oil industry also *“introduced new patterns of labor relations and forms of production, recast of traditional gender expectations, inspired labor organizing and political activity, and created new patterns of consumption and fashion. It also spurred an unprecedented land grab by oil companies and regional élites that forced the dislocation of small and medium-sized proprietors”*.

### **3.2.3. The Venezuelan oil boom and the resource curse**

In the previous sections of this chapter it has become clear that oil development is linked to or has caused several political, social, and economic changes and developments in Venezuela. When considering these, should it be concluded that Venezuela has benefited from its large oil wealth, or did it not? Has the presence of oil been a curse or a blessing, and have the hopes and aspirations of the past that are connected to oil development become reality?

Of all of the countries under study, oil development in Venezuela is most closely linked to all aspects of its society. From the moment oil development started, the large demand for oil for export shaped state policy and institutions, economic development, the emergence of different social classes, and so on. As the Venezuelan intellectual Arturo Uslar Pietri (1972, in: Karl, 1997:73) wrote:

*“Petroleum is the fundamental and basic fact of the Venezuelan destiny. It presents to Venezuela today the most serious national problems that the nation has known in its history. It is like a Minotaur of ancient myths, in the depth of his labyrinth, ravenous and threatening. The vital historical theme for today's Venezuela can be no other than the productive combat with the Minotaur of petroleum. Everything else loses significance. Whether the Republic is centralist or federalist. Whether voters vote white or any other color. Whether they build aqueducts or not... Whether the workers earn five bolívares or fifteen bolívares... All these issues lack meaning... [Everything is] conditioned, determined, created by petroleum.”*

The presence of a natural resource such as oil creates a political risk of corruption. The availability of large short-term wealth increases the opportunity for theft by political leaders (Humphreys, 2007:10-11). And indeed, corruption has always been high in Venezuela, and has increased further over the last fifteen years (Transparency International, 2009:243-246).

According to Wilpert (2003), the most evident effect of the oil boom on the Venezuelan economy is the development of Dutch disease. As we have seen in chapter one, Dutch disease is a process whereby new discoveries or favorable price changes of natural resources cause distress in other economic sectors, like agriculture or manufacturing (Karl, 1997:5). When oil development started in Venezuela, agricultural production immediately started to decrease and industrialization slowed down. In 1920 agricultural production made up about a third of the GDP, but shrank to less than one tenth in the 1950s. In 2003 agriculture made up about six percent of the national GDP. Even during the last decades, industrial production continued to decrease. For instance, in 1990 it made up fifty percent of the GDP, while only being twenty-four percent in 1999<sup>2</sup>. Another problem typically related to Dutch disease, which is the devaluation of the currency and the relation inflation, developed as well. Since the oil booms of the 1970 this has been a continuous problem for Venezuela (Wilpert, 2003).

For the people of Venezuela oil money has generally not brought them better lives. For a while, the GDP per capita of Venezuela was higher than the world average, but between 1969 and 2008, this lead gradually diminished. For many years in a row, the GDP per capita even decreased substantially (Economic Research Service, 2010). Furthermore, perhaps more importantly, measurements of the inequality of family income or wealth in a country show that Venezuela has some of the worst scores in the world (measurements taken between 1980 and 2003, based on Worldbank, 2007 and NationMaster, 2010(2) ). Research by Descamps (2004:30) furthermore shows us that when the economic situation of the country worsens because of the falling of oil prices, the poorest people in Venezuela suffer the most. This study shows that these families lose an average of ten percent of their income in a given year where national oil income is low. Another indicator that measures wellbeing is child mortality. Humphreys et al. (2007:238) indicate in a comparative research of oil producing countries that Venezuela has not been very strong at reducing child mortality between 1970 and 2000. One aspect at which Venezuela is increasingly scoring better is education. Over the last ten years the number of children attending school has significantly increased (Pearson, 2010).

To now turn back to the question I posed at the beginning of this section, has the presence of oil been a curse or a blessing? Taking into account all the foregoing, oil seems to have mostly been a curse for the people of Venezuela. It has hardly created any good and sustainable changes in the fields of politics, the economy or the social arena. The prospects of wealth and opportunity related to the extraction of oil have not translated into sustainable development for the country.

### **3.3. INDIGENOUS PEOPLE IN VENEZUELA**

In this section the indigenous groups of Venezuela will be introduced. I will focus will be on the relationship between the indigenous groups of Venezuela and oil development, as well as on the disturbances that oil has caused for these groups.

#### **3.3.1. Demographics of the indigenous people**

The population of Venezuela consists of over twenty-six million people. About seventy percent of the population is a blend of European, indigenous and African ancestry. About twenty percent of the population is of full European descent, and around eight percent of African descent (Palmerlee et al., 2007:978-979). Official statistics estimate Venezuela's indigenous population around 535,000 people. This is about 2,1% of the total population. According to some other estimates the indigenous population counts between 800,000 to one million people (Fox, 2006; Venezuela Information Office, 2010; Palmerlee et al., 2007:978). From the four countries under study, the size of the indigenous population in Venezuela is one of the smallest. The available data sources also present us with different numbers for the amount of different indigenous groups that exist in Venezuela today, which range from twenty-four to thirty-eight. Amongst these are the Akawayo, Añi, Arawak del Norte, Arawak del Sur, Bari, Eñepa, Guajibó, Jodi, Kariña, Mapoyo, Pemon, Piaroa, Puinave, Pume, Saliva, Sape, Uruak, Warao, Wayuu, Yanomami, Yavarana, Yekuana, Yeral and the Yukpa (see figure 3.3) (Lemoine, 2007; Martínez et al., 2010:195; Vacuven, 2009; Van Cott, 2001:4).

The majority of the Venezuelan indigenous population lives in the northwestern state Zulia. Once they were

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<sup>2</sup> There was a general decline of industrial production in Latin America in this period, which was however much smaller. Between 1990 and 1999 industrial production declined from thirty-six to twenty-nine percent (Wilpert, 2003).

the only inhabitants of that area but now they are outnumbered by people that have migrated to the area because of oil development. The small remainder of the indigenous people is mostly located in the southern state Amazonas. There are also small indigenous populations in the states of Anzoátegui, Apure, Bolívar, Delta Amacuro, Mondagás and Sucre (Minorities at risk, 2010 (2)).

Important cultural differences exist between the indigenous people and the rest of the Venezuelan population, but have in some cases become smaller over time when outside culture influenced or took over aspects of traditional culture. Many different native languages are still widely spoken in Venezuela and the degree to which indigenous people speak Spanish, varies widely. This depends mostly on geographic and economic factors. In 2002, it was decided to make thirty-one native languages official languages of the state, in addition to Spanish. The native languages that are spoken the most by indigenous people are Yanomami and Warao. Since many indigenous children are speaking Spanish, other languages such as Sape, Mapoyo, Bare, Ano, Saliva, Yabarana and Uruak are in danger of extinction. Some indigenous groups still only speak their native tongue. Indigenous groups also still have different cultural traditions and customs than the other Venezuelans, which date back to centuries ago. Examples of these are the use of blowguns and bows and arrows, traditional indigenous dress, tribal dances, and healing rituals. Most indigenous people mix Catholicism with their traditional religions (Minorities at Risk, 2010 (2)).



Figure 3.3. Indigenous groups in Venezuela (Vacuven, 2009).

### 3.3.2. History of the indigenous people

For thousands of years, the indigenous peoples of Venezuela generally lived in harmony with their natural surroundings, living in small settled or nomadic tribes. At their arrival, the Spanish encountered people that were traditionally warlike, and that presented them with fierce resistance against their oppression. Some tribes fought the Spaniards until they were completely destroyed, while others were eventually forced into the Venezuelan interior. However, even until the end of their colonial rule, large parts of Venezuela remained unknown to the Spaniards. Because of this fact, and because of the isolated lifestyles and their wide

dispersion over the country, many tribes remained unnoticed and were largely left alone by the Spaniards. Some tribes were approached by missionaries of the Franciscans and Capuchins who sought to convert them. But even today, some groups (especially the Yanomami) still live in isolation and have had limited contact with the outside world. However, especially since oil development started, many uncontacted indigenous groups have seen outsiders move towards and into their territories and are thus now in greater contact with Venezuela's other inhabitants (Minorities at Risk, 2010).

As has generally been the case in South America, from the moment the colonizers set foot on the continent its inhabitants, the indigenous people, were seen as inferior and uncivilized. This was also the case in Venezuela. Only during the second part of the twentieth century has this attitude started to slowly change. However, while in during the 1970s to 1990s other national governments were beginning to codify a new set of liberties for indigenous people, Venezuela maintained its outdated laws about indigenous rights (Minorities at Risk, 2010).

In many South American countries, the changing of indigenous laws and the granting of human rights happened hand in hand with the emergence of indigenous movements. Indigenous people organized themselves and protested against the disadvantaged situation they were in. In Venezuela this process started a lot later and more slowly. Only at the end of the 1980s, indigenous groups slowly started to find ways to organize themselves and insert their political goals into the national agenda through forming regional and state-level organizations (Martinez et al., 2010:195). The indigenous movement in Venezuela has thus far remained weak. However, its influence in politics increased during Chávez's presidency (Wessendorf, 2008: 139-142).

From the moment that oil activities started in Venezuela, indigenous people were immediately (unwillingly) involved in it, since the main locations where the first drilling started were areas where many indigenous groups were living (Tinker Salas, 2009:31, 91, 105).

### **3.3.3. Indigenous people and the disturbances caused by oil<sup>3</sup>**

In this section, I will describe the disturbances caused by oil development that indigenous people in Venezuela have experienced. Since most of the oil activities take place in the northern part of Venezuela (see figure 3.1), most of the disturbances caused by these activities are logically also experienced by indigenous groups living in the north.

#### Social disturbances

Oil development changed the lives of many indigenous groups, especially of those living in the northwestern part of Venezuela. Soon after oil was found at the beginning of the twentieth century, many indigenous communities were relocated and their living conditions were altered tremendously. Marshes were drained, water and soil became polluted and forests were cut down. Especially near Lake Maracaibo, the territories of the indigenous groups living there were dramatically changed by oil development. Apart from the indigenous lands, at the beginning of the oil boom the people themselves were exploited for labor as well. The exact number of indigenous people that were forced by the companies to work in the oil industry at that time remains unknown (Tinker Salas, 2009:32, 91, 105).

Near Lake Maracaibo, communities such as Cambimas and Lagunillas were totally overrun by oil companies. These companies did not respect municipal boundaries and encouraged large waves of settlers to move into their territories. A migratory circuit developed of thousands of people looking for employment in the oil industry, which was called the '*ruta petrolero*' (oil route). In many cases, indigenous people had no

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<sup>3</sup> There is very little written literature to be found about the disturbances caused by oil development for indigenous people in Venezuela. I was fortunate to find an extensive, well-founded, historical study performed by Miguel Tinker Salas (2009) that describes certain general important aspects of this matter. Due to the lack of other high-quality resources for this section, I will have to rely heavily on his study. This may cause this section to have a rather one-sided view on the topic. I have added textboxes based on other resources that will focus on specific, illustrative cases or issues in an attempt to broaden the perspective somewhat.

other choice than to live in an uneasy coexistence with the newcomers. However, clashes took place repeatedly between indigenous communities and the oil companies, which were often violent and had adverse effects on oil production. Gradually the oil companies started to understand that they at least had to make some concessions to the indigenous groups in order to be able to continue their activities (Tinker Salas, 2009:76, 84-85, 91).

With the arrival of the new settlers that came to find work in the oil industry, indigenous groups also saw life near the oil fields change in other ways. The newcomers brought new social habits with them, and life in and near the oil camps caused new social developments to occur as well. Communities like Cabimas started to become centers for leisure. The predominantly male population of oil workers that had settled in these areas spent large parts of their income in bars, gambling rings, and brothels. As Miguel Tinker Salas (2009:101) describes it, *“sex workers from Maracaibo hired launches on Saturday afternoons to transport them to the booming oil towns, where workers lined the docks to greet them by name. Gambling establishments and saloons opened adjacent “dance halls” for prostitutes, the owners having worked out arrangements with local officials. Besides prostitution, direct officials took note of the increased importation of liquor and the production and sale of local spirits from clandestine stills”*. Living conditions were bad, and sexually transmitted diseases, conflict, and illegal sex trade increased. As a response to these developments, the state, as well as the oil companies tried to change this situation that was getting out of hand. Steps were taken to install civil authorities and police forces near the oil workers’ camps. Oil companies created alternative leisure activities for oil workers, such as open-air movie theatres. However, despite these efforts, gambling, prostitution, and heavy drinking continued to flourish (Tinker Salas, 66-67, 101-102).

#### Economic disturbances

Unfortunately, only little has been written about the relationship between oil and the economic disturbances it has caused for indigenous people over time. Tinker Salas (2009:67, 105) describes some general trends on this topic, however. According to him, the indigenous communities that saw oil companies moving into their territory could soon no longer continue their self sufficient lifestyle. The land they could previously use for their livelihoods was now polluted, fragmented or inhabited by newcomers. The indigenous groups had to turn to other strategies for survival and had to take part in the economic system that was introduced by the people that were entering their territories. Before, money was not a necessity for survival but this changed when a self-sufficient lifestyle became hard to maintain. Unfortunately, with the arrival of the new settlers, prices of goods and housing started to soar. There was not enough food for the exploding population, which was very problematic for the indigenous communities as well as for the new settlers. Deteriorating agricultural conditions forced local farmers to abandon their plots, which worsened the situation further. Because of the continuous shortages most basic products were shipped in from Maracaibo and beyond. This made these products very expensive. In order to make a living, some indigenous people tried to find work at the oil companies. Other indigenous communities banded together to create mutual aid societies, which later also provided a basis for political action for them.

#### Environmental disturbances

No useful quantitative data exists that could be used for the description of the environmental disturbances caused by oil activities that are experienced by indigenous people in Venezuela. I will therefore have to rely on small number of qualitative data sources, which will limit my analysis.

The start of the oil boom in Venezuela was also the start of a long history of environmental disturbances for indigenous groups. According to Tinker Salas (2009:21, 75) oil development has dramatically and permanently altered the physical environment in Venezuela, especially in the region around Lake Maracaibo. Before oil development started here, this region was known for its large tropical forests, marshes and mangroves. The soil was very fertile which provided the right conditions for the cultivation of sugar, plantain, cacao and other crops. The region had a very high biodiversity. It was known for the many different migratory bird species that stopped there on their route, its otters and the wide array of fish and crustacean species that could be found in the lake.

Soon after oil drilling started, the landscape around the oil sites quickly turned into a web of drilling sites, pipes, storage tanks and docks and harbors on the lakeshores for the further transportation of oil. Later a

network of roads was built to connect these points with one another (Tinker Salas, 2009:84).

Oil pollution became commonplace and within a few years large areas around the drill sites became heavily polluted. Many environmental disasters took place, which had a large impact on the environment, as well as the people living in it. Box 3.1 and box 3.2 give examples of these events in the Maracaibo region.

#### Box 3.1. The Maracaibo gusher.

In December of 1922, oil workers were drilling in an abandoned well called Barroso no. 2, situated in the Maracaibo region in the Northwestern part of Venezuela. Unexpectedly they hit a large oil reserve and oil began to spurt out rapidly and uncontrollably. As described by Vivanco and Villegas (1928, in: Tinker Salas, 2009: 55), *“in the early hours of the morning the ground shook and the well made a noise that sounded like the passage of a thousand freight trains”*. The oil gusher was spewing out oil at a rate of 100,000 barrels a day. A large area, in which stood the entire town of La Rosa, became saturated with oil. Residents living three kilometers away from the drill site reported oil splattering onto their houses. Local homes were damaged and crops and livestock were covered in oil. The oil company that was responsible for the drill site was VOC. This company was short of personnel and equipment and was unable to control the gusher, and oil continued flowing out for days. Interestingly, shortly after a religious ceremony was held at the well site by locals to stop the oil flowing out, the well collapsed and closed. During nine days, over 800,000 barrels of oil were released into the environment and Lake Maracaibo was polluted heavily (Tinker Salas, 2009:55-57). The Maracaibo gusher captured the attention of the world. This however was not because of its devastating effects on the people and the environment near the well, but instead because many saw the gusher as a promising sign for opportunities for more oil development in the area (Tinker Salas, 2009:56).

#### Box 3.2. Recent spills near Maracaibo.

The area around Lake Maracaibo has seen serious accidents with oil in the past. But recent events show us that oil pollution is still continuing today. Since the start of oil activities in the Maracaibo region, thousands of wells have been drilled. Today there are more than a thousand active wells in the area, and around 40,000 kilometers of pipelines lie on the lake bed. Over time, corrosion has caused the pipelines to weaken and leakages are increasingly taking place. The national oil company Petroleos de Venezuela admits that there are around 2,300 pipeline ruptures a year in the lake (Petroleumworld, 2010). Between December of 2002 and February of 2003 local and federal Venezuelan experts observed and recorded a series of oil spills from aircrafts, helicopters, and various surface vessels. They witnessed a series of accidents, among which *“fires, the sinking of two barges, rupture of oil pipelines, spills from floating oil storage and transfer stations, and malfunctioning of oil extraction platforms”* (Eos, 2003:313). An article published in June of this year (Petroleumworld, 2010(2)) again mentions a new major spill in the lake, of which the oil slick has covered over a thousand square kilometers of the lake surface (at the moment of writing).



Airborne photograph of oil spills, taken at January 18<sup>th</sup>, 2003 (Eos, 2003:314).

Thus far oil has been the largest and longest lasting environmental threat in Venezuela. However, new threats such as gold, diamond, and coal mining, and wood logging are now increasingly destroying and polluting

Venezuela's natural areas and affecting the indigenous people living in them as well. (Kuiper, 2005). Two volunteers of the NGO Amigranza share their opinion about this in box 3.3.

Box 3.3. Current environmental threats in Venezuela.

Alicia Garcia and Maria Eugenia Bustamante, two volunteers from the Venezuelan environmentally oriented NGO 'Amigranza' share their opinions about the environmental threats Venezuela is currently facing:

*“There are so many huge threats for the environment in Venezuela at the moment. One of them is the coal mining in Zulia, west of the Maracaibo Lake. Another main threat is the mining and logging activities in the Imataca forest reserve. Another is the continuing construction and expansion of the electricity line towards Brazil, where the government neglected the protests from indigenous people and environmentalists in the Gran Sabana, which is one of the worlds' most spectacular landscapes. Another problem is the continued issuing of gas and oil concessions, especially in the eastern part of the country, such as in the Orinoco Delta and the Gulf of Paria, which is a very important fish breeding area. The ecosystem of lake Maracaibo has suffered a lot already from the oil industry. Another oil- and gas-threat comes from the plans to construct pipelines towards Colombia, Panama, Brazil, and the United States.*

*We are also worried about the activities planned under the IIRSA, the Integration of the Regional Infrastructure in South America. This plan for instance includes megalomaniac plans such as linking the South American rivers Rio Plata in Argentina, up to the Amazonas in Brazil and then further north towards the Orinoco in Venezuela. It's ridiculous! Further, we fear the increase of monocultures in agriculture, because these depend on the use of pesticides and other chemicals and lead to a diminishing of biodiversity. More in general, we are very worried about the permissive culture of the current government towards squatters, miners, etc. This leads to deforestation, illegal mining, etc, where instead the rule of law should be enforced”.*

(Alicia Garcia and Maria Eugenia Bustamante, in: Kuiper, 2005).

Indigenous people protesting coal mining on the lands in Caracas, April 2005 (Wagner, 2005).



A possible future environmental threat for the indigenous people in parts of the country that have thus far not experienced (large) negative disturbances caused by the extractive industries could come from the plan to create the 'Pipeline of the South'. As a means to meet the energy needs of other South American countries a pipeline would be built through the Brazilian Amazon to reach all the way to Buenos Aires in Argentina. 150 million cubic meters of gas would be distributed to Argentina, Brazil and Uruguay, with possible interconnections with Bolivia and Paraguay. The construction of a pipeline of 8,000 kilometers, and dozens of plants and compression stations would have consequences such as deforestation and fragmentation of the rainforest, opening up areas for waves of invaders, the dispossession of indigenous lands, an increased risk on further spread of tropical disease, pollution, erosion, and disturbance of ecological systems. The estimated cost of the pipeline would lie between twenty and twenty-five billion dollars (Amigranza, 2006; Gould, 2006). After protests coming from all directions Chavez announced in 2007 that the plan was (temporarily) put on hold. However, in January of 2010 the Venezuelan government already started another project in which pipelines are now being built to transport oil and gas between Venezuela and Colombia and Panama.

The project aims to make transport of oil and gas to Central America easier, as well as making transport to East Asia easier from the Pacific coast (Morsbach, 2010). The environmental consequences of this new project are unknown.

### 3.4. RESILIENCE AND THE IMPACT OF THE OIL BOOM

In this section, I will move a step closer to the answer to the research question for Venezuela. I will determine what impact the oil boom in Venezuela has had on its indigenous people, and in what way their resilience has determined this impact. In the next section I will set out my findings about the resilience of the indigenous people of Venezuela, looking at their institutional diversity, the types of knowledge that they use and the transfer of this knowledge, and their social and ecological memory. This analysis will be made following the proxy indicators described in chapter two (see paragraph 2.2.5). After this, I will describe to what extent and in what way their resilience has determined the impact of the oil boom on their social-ecological systems.

#### 3.4.1. Resilience of the indigenous population<sup>4</sup>

##### 3.4.1.1. Resilience factor 1. Institutional diversity

Proxy indicator a: The creation of new institutions and their diversity

As we shall see in the next chapters, in some South American countries the indigenous movement has been growing and developing itself for decades. In Venezuela this process has only started recently, and has taken place rather slowly. Only during the last ten to twenty years Venezuela's indigenous people have slowly started to find ways to organize themselves in institutions as well as to get their goals on the national political agenda (Warren et al., 2003:6) (see box 3.4). Before this time, there were some indigenous groups that already took action to defend their territories and rights. Certain individual indigenous communities protested or physically fought off unwanted oil development when confronted with it. However, these generally did not take place in an organized manner.

#### Box 3.4. Indigenous organizing.

The following statement about indigenous organizing is made by Wadajaniyu, a member of the Ye'kuana tribe.

*“Before we had no means to be able to defend ourselves. Now, under the Chávez government, we are mentioned in the constitution and we have the ability to organize ourselves. [...] Indigenous groups have always organized here to try to figure out ways to support our communities. But we never had the value of maintaining our culture in the way that we wanted it. A lot of political factions would enter our communities and take our culture away little by little. I participated in an organization called the Regional Organization of the Indigenous people of Amazonas State. We would always come together for meetings and make agreements, but we never achieved solutions. Those that led the organization were often indigenous politicians who had sold out to the world of politics.”*

(Martinez et al., 2010:201)

From the moment that indigenous rights have been added to the constitution about a decade ago<sup>5</sup>, indigenous

<sup>4</sup> For some of the proxy indicators (in this chapter as well as in later chapters) there is a limited amount of high-quality, independent data available. To create a broader picture when discussing these indicators, next to using the high-quality data that I have found, I have also added textboxes with personal statements, specific small scale case studies, or other types of illustrative information.

<sup>5</sup> The constitutional reforms made by the Chávez government in 1999 to include indigenous rights will be discussed in more detail in a later section of this chapter.

groups have had better legal opportunities to organize themselves. As a response, they have slowly started to create indigenous institutions. Some regional and national indigenous institutions have been established, such as the Federación Indígena del Estado Bolívar (FIB, or the Indigenous Federation of the State of Bolívar), the Organización Regional de los Pueblos Indígenas de Amazonas (ORPIA, or the Regional Organization of the Indigenous Peoples of Amazonas State). These local organizations began to cooperate more regularly, and in 1989 the national organization Consejo Nacional Indio de Venezuela (CONIVE, or National Indigenous Council of Venezuela) was created (see box 3.5) (Martinez et al., 2010:195). Some small organizations focusing on a single indigenous group, such as the Wayúu Tayá Foundation, have been created as well. This organization mainly concentrates its efforts on assisting the Wayúu, an indigenous group of over 450,000 people, which is located in the Guajira Peninsula of northern Colombia and northwest Venezuela (Wayúu Tayá, 2010).

#### Box 3.5. CONIVE.

In 1989, FIB, the oldest regional indigenous organization of Venezuela, created a new national indigenous organization called the Consejo Nacional Indio de Venezuela (National Indian Council of Venezuela, or CONIVE). CONIVE is composed of sixty (small) organizations and representatives from thirty-two indigenous ethnic groups including the Warao, Yucpa, Wayuu, Timotes, Panare, Yanomami and Yecuana, among others (Fox, 2006).

Over time CONIVE has become perhaps the most important umbrella organization for the indigenous rights movement in Venezuela. It has played an important role in bringing different indigenous groups together, and in the process of making constitutional changes in order to improve the legal rights of indigenous groups in Venezuela (Van Cott, 2001:23).

CONIVE is supposed to represent indigenous communities in Venezuela. However, critics claim that it is not an autonomous institution. CONIVE has never pronounced its full, unconditional support for the indigenous struggle. The institution has become divided, and there are now two CONIVE's. One part of the organization is led by a deputy in the National Assembly, the other by the minister for the Ministry of Popular Power for Indigenous Peoples. CONIVE is thus led by people who have political positions within the government. Because of this, the organization is not autonomous. It represents the state and obeys government policies (Martinez et al., 2010:215-216). Jorge Montiel, a member of the Wayúu tribe, states that *"this [the conflict of interest within CONIVE], for us, has not been a gain. For the leaders, it has brought personal gain because they have used it as an instrument of electoral politics. CONIVE has never pronounced its support for our struggle. On the contrary, Arcadio Montiel, who is a deputy in the National Assembly and a member of CONIVE, has come out against our struggle."* (Martinez et al., 2010:216). Based on this information, it becomes questionable to what extent CONIVE really represents the indigenous population, and whether it will put indigenous interests before government policies when these two collide.

The indigenous movement that has slowly started to immerge in Venezuela is not very stable or well-established. Compared with several other South American countries, in Venezuela the regional and national indigenous organizations show little institutional continuity. With the exception of the FIB, which was established in 1973, most organizations are also relatively new and have little experience (Fox, 2006). On top of this, many of the indigenous organizations that have started to develop have suffered from internal divisions. Because of the presence of a multitude of indigenous ethnic identities and a great diversity of political ideas and approaches, the consolidation of a national indigenous movement continues to be impeded.

In Venezuela, civil society organizations are influenced greatly by politics, and so are indigenous organizations. According to Van Cott (2001:7) *"political parties, which have monopolized channels to political power and resources for half a century, permeate indigenous politics. Like other Venezuelan civil society organizations, indigenous organizations have difficulty resisting the tendency to behave like the political parties they seek to replace and persisting as a durable alternative to parties"*. A few decades earlier, in (the few) cases in which indigenous people would organize themselves, they mainly used strategies

of protest and demanding rights from the government. However, under Chávez's rule, they have now changed to a general method of complying, collaborating and implementing government policies (Wessendorf, 2008:139-140). The main reason for this change of strategy is the government's aggressively adversarial posture towards different types of civil society organizations. During Chávez's presidency, many independently acting civil society organizations and actors, including indigenous groups, have been experiencing (false) government allegations focused on discrediting their activities, government lawsuits, and actions to restrict their access to international funding and forums by the government (Human Rights Watch, 2008 (2) ).

Thus, although the indigenous population has a high diversity in terms of ethnicity and customs, its institutional diversity remains rather low. Organizations have slowly started to emerge, and an overarching organization (CONIVE) has been created. During the last decades some important changes have occurred in favor of the indigenous population, of which the constitutional change is perhaps the most important one. However, along with these changes, politics has gradually infiltrated indigenous groups that were once independent and were following their own agendas. Indigenous groups now tend to follow government policies. It seems that only when government policies are consistent with the needs of the indigenous population, there is no immediate problem with this strategy. However, activities that are not totally in line with the government's policy, or even independent civil society actions in general, are often suppressed and thwarted by the government. An increased indigenous involvement in state bodies combined with the fear of being associated with adversaries, rules out or minimizes attempts to confront the government full on (Wessendorf, 2008:139-140). The loss of autonomy makes the indigenous movement, which is also weak in terms of its organization and coherence, very vulnerable when politics does not parallel indigenous preferences. According to Wessendorf (2008:139-140), despite the fact that some new organizations have emerged over the last years, the organized indigenous movement as a whole has actually become weaker. Because of the hindrance by the government, internal divisions, and the lack of a strong network, the splits within the movement are growing deeper and its strength is decreasing.

Proxy indicator b: Linked secondary institutions

The indigenous movement of Venezuela is not very strong, and neither are its links with secondary institutions, such as other types of NGO's and the media. However, certain types of secondary institutions have collaborated with the indigenous movement and have supported their cause.

A group (originally) from civil society that has been an ally to indigenous organizations is the Venezuelan human rights movement, of which the indigenous moment is considered to be part of. This movement also includes women's and environmental organizations. The human rights movement has mainly been of importance to the indigenous groups through politics, since other paths to success have in many cases been restricted by the government. Especially during the last decade, human rights activists have used their earlier established relationship with Hugo Chávez, which dates back to the alliances that had been created during his 1998 presidential campaign, to penetrate the Assembly, and particularly the Human Rights Commission. From this position within politics, the human rights movement tries to work on advocating indigenous rights<sup>6</sup>. In the process of making constitutional changes including indigenous rights in 1999, they have played an important role (Van Cott, 2001:18). However, the human rights organizations that are still functioning independently from the government have been facing "*prosecutorial harassment, unsubstantiated allegations aimed at discrediting their work, and efforts to exclude them from international forums and restrict their access to international funding*" by the Chávez government. Chávez justifies these measures by arguing that these organizations aim at destabilizing the country and removing him from office (Human Rights Watch, 2008 (2)). This greatly limits their opportunities for the development of (new) organizations and the creation of national and international networks with which indigenous groups could collaborate (also see box 3.6 on the next page).

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<sup>6</sup> However, according to Human Rights Watch (2008 (1)), political discrimination has also been a recurring characteristic of Venezuela's government's policies and actions in a wide variety of areas. Real and perceived political opponents have been discriminated against, harassed, and removed from their career in civil service. Given this information, it becomes questionable to what extent human rights advocates can really be of large influence in Venezuelan politics, and to what extent they are limited in expressing their opinions and pursuing their goals. Answering this question goes beyond the scope of this research.

### Box 3.6. Government hindrance of NGO's.

The opinion of Rodolfo Castillo Ruiz, who is working at the Venezuelan NGO Bioparques:

*“So far my work hasn't been really dangerous, but at times you have to watch out what you are saying. In general, I think that the NGO scene has become much weaker over the last years. According to me, the 'big hit' came in the year 2000, when some NGOs organized a caravan (a demonstration with hooting cars in the streets) in Caracas against the electricity line towards Brasil. We were simply protesting against the track of the electricity line, but we must have annoyed Chavez very much with it, because the next day he was very angry at us. We were accused of being traitors, dependant of foreign money. Since then, we seem to be doomed by the government. This actually did scare some of the NGOs. Many of us decided to stay away from delicate issues, and started working on less controversial issues such as environmental education, or work with children. But comments from the government won't stop me. A long time ago, I fell in love with our national parks, and I will continue to fight for the protection of them” (Kuiper, 2005).*

The Catholic Church has been another ally of the indigenous people in Venezuela. Its first few representatives in Venezuela were missionaries that established themselves near the Orinoco River in 1670 (SNU, 2010). Since then the presence of the Catholic Church in Venezuela has gradually increased. The Church, and especially certain groups of missionaries such as the 'New Tribes Mission', have supported the indigenous people during the oil boom and other times when aid from government authorities was scarce or nonexistent (MSNBC, 2005). The Church's human rights office has for instance played a crucial role in the period in which constitutional reforms concerning indigenous rights took place. It provided indigenous people with financial and logistical support for workshops and meetings, published and spread information, and maintained a permanent team of advisors (Van Cott, 2001:18). However, during the last decade Chávez has repeatedly ordered missionaries to leave the country, accusing them of having links with the CIA. Some indigenous protests against this decision took place, but most missionaries were still forced to leave the country (MSNBC, 2005). According to some, Chávez has actually helped the indigenous people by removing the missionaries from Venezuela. They state that the missionaries were disturbing the indigenous cultures by introducing Christianity, new diseases, tourism, guns, western clothing and other unwanted developments (Chagnon, 1992; Blough, 2006).

As we have seen, during the last years the Venezuelan government has helped indigenous groups by for instance improving their legal rights, and –as we shall see in the next section about political influence - allowing increased indigenous representation in government bodies. However, at the same time it has counteracted and silenced the indigenous movement. Thus, the link indigenous groups have with the government has brought them some positive changes, but at the same time many groups lost their independence. This has also largely prevented the indigenous movement from creating ties with international media.

Thus, main allies of the indigenous population are the human rights movement and the Catholic Church. These groups have been able to support the indigenous cause at certain moments. However, thus far the indigenous people have not been able to create strong ties with their independent allies since the government is strongly thwarting activities that are not part of government policies.

Proxy indicator c: Diversity of resources/means

In the first two chapters of this thesis it has become clear that a diverse set of useful resources and means can give indigenous groups more policy options and flexibility towards changes. These resources and means I will now investigate for the indigenous population of Venezuela.

## Political influence<sup>7</sup>

A first means that is important is the political influence indigenous people in Venezuela have. As we have already seen in the previous section, especially since Chávez's presidency started, politics has penetrated many aspects of society. Independent initiatives are in certain cases discouraged or even oppressed by the government. As a consequence, many indigenous groups and organizations are now using a strategy of complying and collaborating with the government.

Until Chávez became president, indigenous groups had virtually no political influence. This has changed considerably during the last years. The last decade has seen an increased indigenous involvement in state bodies. Currently, several indigenous people have positions in the government: three indigenous representatives are part of the parliament (the National Assembly), a few indigenous people are mayors and governors, and several have decision-making power within ministries and in the military. Furthermore, in January of 2007 a ministry for indigenous peoples has been created (Wessendorf, 2008: 139-140).

The increased indigenous representation in politics is an important and impressive achievement, especially considering the timeframe in which these changes have taken place and the fact that the indigenous population in Venezuela is relatively small (around two percent of the total population). On the one hand, the presence of indigenous representatives in the government can encourage strategies of 'change from within'. It is an important development that could be a way for indigenous people to improve their situation. It is too soon to assess whether indigenous people are able to make this change. However, on the other hand, the merging of politics and civil society is a way of disarming the indigenous movement. This is particularly dangerous in cases in which indigenous interests collide with the government's stance (also see box 3.7).

### Box 3.7. Kathrin Wessendorf on indigenous interests and ministries

*"The possible conflict of interests between the indigenous communities and peoples and the national government can be seen more clearly in the shape of the Ministry for Indigenous Peoples and in the person of the current minister (a Ye'kuana from the Upper Orinoco). Who does this ministry represent: the government or the indigenous peoples? What position does this institution take in relation to a conflict of interests between the indigenous organizations and the government? A less structural and more welfarist trend can also be seen within the Ministry of Popular Power for Indigenous Peoples (Ministerio del Poder Popular para los Pueblos Indígenas) in its attitude towards public policies. The 'achievements' announced by the Ministry for Indigenous Peoples range from the distribution of bags of food to visits to 'highly vulnerable indigenous communities in order to... deliver food, clothes, hammocks, mosquito nets, along with inputs and materials for productive work... medical, dental, food, hygiene, school and productive care...'. There is undoubtedly a political interest in prioritizing care to a population group that has been historically considered as abandoned and highly vulnerable. Nonetheless, the choices for this care, often used to mitigate the severity of poverty among urban populations, are proving highly damaging to many indigenous communities, which are demanding or require structural policies aimed at achieving greater equality."* (Wessendorf, 2008:140-142).

Kathrin Wessendorf is a program coordinator at the International Work Group of Indigenous Affairs and the author of several books focusing on indigenous issues.

## Legal means

About a decade ago constitutional changes have been made that provide the indigenous people with more

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<sup>7</sup> Whether or not indigenous groups manage to acquire political influence and legal means depends on whether they use resourceful and effective ways to obtain these. However, whether they will eventually be successful at obtaining these matters also depends on the extent to which the context in which they operate allows them to do this. E.g., whether they have a high level of resilient or not, if indigenous people try to obtain political influence in a dictatorship, this might simply be impossible. Thus, I acknowledge that the end result of the analysis of the political influence and legal means is not a perfect measurement of the resilience of the indigenous population, but is determined by external factors as well.

legal rights. In September of 1999, representatives of different indigenous tribes marched to Caracas to pressure the Constitutional Assembly to include important changes in the new constitution. The changes that were demanded included indigenous right to ownership, land demarcations of ancestral lands within two years, free choice of nationality, and free transit across international borders (Wessendorf, 2009:142). On December 15<sup>th</sup>, 1999 a new constitution was submitted to a national vote and approved by the majority of the population. Constitutional changes were made in different policy areas, such as women's rights, education, environmental rights, and indigenous rights (Wilpert, 2003 (2) ).

For the first time in Venezuela's history, the new constitution recognized the indigenous population's right to exist, to its territories, cultures and its languages. By creating this new constitution the state committed itself legally to letting indigenous communities demarcate their own lands. It also guarantees that the exploitation of natural resources in indigenous territories will not negatively affect its inhabitants. The state committed not only to protect, but also to promote indigenous culture and languages. Finally, the state guarantees that indigenous people can represent themselves politically in the National Assembly and other state bodies (Wilpert, 2003 (2)). The credit for initiating these constitutional changes should be given not so much to the legislators, but instead to the indigenous lobbies. These lobbies negotiated and bargained with legislators and state representatives, for a very long time -sometimes even through armed conflict (Van Cott, 2001:5-17).

The constitutional changes are a large asset and an accomplishment for the indigenous people in Venezuela. Van Cott (2001:3) even describes this event as a 'least likely case', where a very small and marginalized group unexpectedly manages to attain comparable or superior legal rights to those obtained in neighboring countries with more consolidated movements.

Unfortunately, there is a large downside. In reality, the Venezuelan government has in many cases not lived up to what they have laid out in the new constitution. The new legal framework has clearly created a basis for increased indigenous involvement in politics, which has taken place. However, at the same time the movement's space to develop and act independently has been greatly restricted.

Following the new constitution, the government has indeed titled lands to indigenous groups during the last years. The first lands rights were legally recognized in 2005. In 2007, eleven titles were issued to Kariña, Anzoátegui, Pumé, Warao and Cumanagoto communities. However, the demarcation process was very problematic. None of the land titles given corresponded to the demarcations made by the indigenous groups. Furthermore, the lands that have been officially recognized were of relatively small sizes. This again leaves indigenous communities in the position that they have insufficient land, which means that they still have to compete for additional land with peasant communities. The reasons given for the problems with indigenous land titling are diverse. Problems of coordination between different government bodies are mentioned, as well as a lack of clarity about rules, a lack of funding, the presence of conflicting resource extraction policies, the weakening of the indigenous movement and their allies, and the increased amount and intensity of land demarcation disputes between indigenous people and other groups. Unexpectedly, another problematic development now seems to be Chávez's changed attitude towards the land demarcation, who was once a strong proponent of it. He is now said to be unconvinced of the virtues of land demarcation for indigenous people, despite the constitutional mandate for it. A recent proposal for demarcation of their lands submitted by the Yekuana-Sanema was approved by the Ministry for the Environment, but then rejected by the president. The proposal fulfilled all the legal requirements for demarcation, but Chávez decided it was not possible to give the indigenous group land titles. To some, the interference by the president is the main obstacle in all demarcation processes (Wessendorf, 2008:142-146).

The new constitution has provided indigenous people with some more possibilities to maintain their cultures. The constitution has given them the right to their own education, which they have used to create their own university. This is a large step forward for the preservation and spread of indigenous knowledge. However, representatives of the indigenous university note that their plans are often thwarted by the government (Martinez et al., 2010:197).

A recent development is that a law has been created that has the aim to preserve, strengthen, and promote indigenous artisanship. This new Indigenous Artisans Law legally recognizes indigenous artisanship, and plans to create a fund that will finance infrastructure, education, and health care for artisans. In the law indigenous artisanship is recognized as an integral part of Venezuela's cultural heritage (Suggett, 2009).

To conclude, the fact that within a short period of time large constitutional changes have been made in favor of the indigenous population of Venezuela is a remarkable and powerful achievement. By many indigenous people the new constitution is indeed seen as an improvement to the previous constitution (Martinez et al., 2010:213). However, the problematic translation from law into practice greatly reduces the power that the new constitution gives indigenous people in reality.

#### Monetary income and human capital

A third type of means that is important for indigenous groups consists of their monetary income and human capital<sup>8</sup>. Unfortunately, there is very little information available about the monetary income and human capital of indigenous people in Venezuela. Whether this has to do with government restrictions and censorship measures for media and researchers is a question I cannot answer with absolute certainty.

It has become clear that inequality in Venezuela is high, and that a large percentage of the population lives below the poverty line. According to the Rural Poverty Portal (2010), over thirty-eight percent of the Venezuelan population lives below the poverty line. Ten percent of these people even live in extreme poverty. Poverty is most common in rural areas, which is where the largest part of the indigenous population lives. Furthermore, within the already disadvantaged rural population, indigenous people are generally found in the poorest segments. Thus, indigenous peoples are part of the poorest sectors of Venezuelan society. The exact numbers will remain unknown, but it is clear that a large part of the indigenous population lives below the poverty line.

Research shows that access to human capital is essential to alleviate poverty in indigenous households (Hall et al., 2006:13, 17, 19-20). Access to public and private services like education, potable water, electricity and sanitation services can improve the lives of the people using them, creating a more opportunities in life and a safer, healthier living environment. The Venezuelan government provides information about these services, but note that these data are generally not supported by other (independent) sources. Therefore I decided to only use the limited non-governmental data resources that are available for this analysis.

There are no data available that focus specifically on the access that indigenous people have to private and public services. However, I have found data focusing on either the rural population or the total population of Venezuela. These data can give us an idea about general trends in the country that probably also to a certain extent apply to the indigenous population. The World Health Organization (2010) indicates that in 2008 seventy-five percent of the rural population had access to improved water sources, and ninety-four to sanitation facilities. The access to these facilities has been growing steadily during the last years. Furthermore, data from the World Bank (2010) indicate that ninety-eight percent of the Venezuelan population has access to electricity. These data are pretty impressive, especially when compared to other South American countries. However, when it comes to education, indigenous people do not score as well. Data focusing on indigenous school attendance reveal that only few indigenous people receive a proper education, or any education at all. However, school attendance among indigenous people has been increasing slowly (Ministerio de Educación Superior, República Bolivariana de Venezuela, 2004:24, 25). More information about education will be provided in the section about knowledge. The increased access to services is related to a government program called Mission Guaicaipuro that started in 2003. This program has the aim to improve healthcare, education and services in rural areas (Norrell, 2006).

Thus, although poverty levels have remained very high, it seems like indigenous people have gained more access to public and private services.

#### Proxy indicator d: Diversity/ flexibility of management and policies

The indigenous population of Venezuela can respond better to disturbances caused by oil development when their policies and management practices are diverse and flexible towards change. In this section I will discuss their usage of several approaches for dealing with oil development.

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<sup>8</sup> Human capital stands for the skills and capabilities people have that are generated by investments in education and health (World Health Organization, 2010).

## Protesting and marches

Given that the indigenous movement of Venezuela is not very strong and that the government actively oppresses opposition, it comes as no surprise that the strategy to use protest as an attempt to stop or influence oil development is not very common. This is in great contrast with other South American countries such as Ecuador, where protest marches are a very important and frequently used tool for the indigenous movement to oppose oil companies. There, the use of this strategy has led to important results. For Venezuela, I have found no evidence of any significant organized public protests against oil development by indigenous people. However, a relatively small number marches has been organized by indigenous groups in Venezuela that were focused on other issues, such as legal rights, land demarcation, and coal mining. One example of a march is the earlier described one held in 1999 to protest the lack of legal right to ownership of ancestral lands (Wessendorf, 2009:142). Box 3.8 provides us with another example of such an event.

### Box 3.8. Indigenous protest against coal mining

Sarah Wagner, a reporter for Venezuela Analysis reports on an indigenous protest march against coal mining that took place in Caracas in March of 2005.

*“Yesterday over six hundred Venezuelan indigenous people of the Wayú, Bari, and Yukpa ethnicities marched from the Plaza Morelos to the Presidential Palace of Miraflores in Caracas, protesting coal exploitation in the western state of Zulia. Alongside the indigenous people, civil society groups, political organizations, ecological and environment agencies and NGOs of the region walked the two miles to hand deliver a letter of protest to Venezuelan President Hugo Chávez. Alvaro Acontacai, a representative for the Bari ethnicity, explained that the letter protests coal mining in the Sierra de Perijá, the most northern chain of Andes mountains, charging that mining of the mineral is harmful both to the environment and to the people. The letter details the number of workers in coal businesses Carbones de Guasare and Carbones del la Guajira who have come down with work-related illnesses. It explains that coal mining has not only displaced indigenous populations from their homes but also Zulia residents due to the contamination of the Catatumbo and Zulia rivers, preventing the five million citizens of Zulia from attaining daily access to water. Destroying the water supply not only harms the environment, the letter states, but also prevents the cultivation of crops and the raising of livestock. It also made note of the constant stream of vehicular accidents along the routes used to transport the coal, from the mines to the loading docks along the shores of Lake Maracaibo. According to Acontacai, the main arteries leading in and out of Maracaibo, as well as the adjoining towns of Santa Cruz de Mara, El Bajo de San Francisco, La Ceiba and La Cañada de Urdabeta, are filled with dust and pieces of coal” (Wagner, 2005).*

The text on one of the banners during the indigenous protest march said "Chavez, we demand a stop to coal mining in Perijá" (Wagner, 2005).



## Physical display of power/violence

Physical display of power and even the act of physical violence are strategies that have generally been used by indigenous groups in South America in situations in which their territories were invaded by outsiders. During the times when the Spanish were ruling, there were many instances in which indigenous groups fought off intruders. However, several current examples are known of indigenous communities physically attacking intruders that entered their territories as well. In these cases, it is usually a single community

defending its lands. For these confrontations, indigenous people carried self-made spears, shotguns or other weapons, which they used for threatening or attacking their enemies. In some of these cases the indigenous groups threatened or attacked oil workers or government representatives that entered their territories. These recent confrontations have, perhaps surprisingly considering the power that the state in Venezuela has, in some cases actually had the desired effects for the involved indigenous groups. The intruders were scared

### Box 3.9. The Bari

In the early days of oil exploitation in Venezuela, operations went smoothly on the eastern shore of Lake Maracaibo. However, the western shore presented some unforeseen challenges for the oil companies. Two oil companies had found rich deposits in this area, which was also the territory of the Bari people.

The presence of oil drastically altered the relationship between the Venezuelan state and the Bari people. In the late 1920s the state attempted to incorporate their territory under its authority. The oil companies tried to bribe the Bari with gifts and other incentives, but without the desired result. According to Rabe (1982, in Tinker Salas, 2009:59) the companies tried to kill the Bari by setting booby traps under their cooking fires. As a response the Bari attacked oil workers with arrows. Several workers were killed by them during these confrontations. A local newspaper of that time crudely suggested that the Bari should be gassed, since they were impeding progress. This did not happen and for a while calm returned (Tinker Salas, 2009:59-60). However, in the late 1950s one of the oil companies tried to contact the Bari again. This time, they contracted a group of Capuchin priests to drop gifts with planes owned by the oil company. When the priests entered the Bari territory after dropping the gifts, they were attacked by the Bari with arrows (Tinker Salas, 2009:61).

Despite all the efforts the oil companies and the state made, they have been unable to demobilize the Bari. Some 2,500 Bari still live in their territory today (Joshua Project, 2010).



Members of the Bari tribe  
(Bermudaradicals, 2010)

away, or oil activities halted (Ten Hoedt, 2010: 36; BBC News, 2008 (1); Gedicks, 2001:60). An example of such a confrontation is described in box 3.9.

### Attracting media attention

In several countries in South America, indigenous groups have been successful at defending their rights and attaining their needs by pressuring the government or other parties with the help from (international) media. With the help of modern-day technology, the media can give indigenous people a voice that can be heard all over the world. In this way, knowledge can be spread and injustice can come to light. Based on this knowledge, national and international actors can support the indigenous cause (Haller et al., 2008:561).

The strategy of attracting attention of (international) media to achieve certain targets has been used by Venezuelan indigenous groups, but only to a small extent, especially compared to other indigenous South American populations. There are some independent websites, such as [Venezuelanalysis.com](http://Venezuelanalysis.com) on which indigenous issues are mentioned in some cases. The lack of ties to the media is linked to the fact that the indigenous movement does not have a large organizational capacity and because of the oppressive regime in Venezuela.

Thus, the previous paragraphs show us that the strategies indigenous people in Venezuela have used to deal with the disturbances caused by oil development have not been very successful, diverse or flexible. Protest marches against oil development have not taken place, and the indigenous movement has only been mildly successful at attracting media attention. However, opposing oil development using a strategy of threat or violence has been successful in a few cases. At the moment, it seems like the only thing indigenous people in Venezuela can do is to become active in politics and hope they can create change from within. If the movement does not organize itself better, this seems to be the only way in which it can achieve any results.

### 3.4.1.2. Resilience factor 2. Knowledge

As we have seen in chapter two, resilience is increased when the process of knowledge acquisition takes place in the form of an ongoing, dynamic learning process. Furthermore, different types of relevant knowledge should be used to increase the understanding of complex systems. For this resilience factor, I will look at the transfer of knowledge as well as the diversity of the types of knowledge that are used.

Proxy indicator a: Transfer of knowledge

For this aspect of resilience I will investigate to what extent knowledge is spread within the indigenous population. When the transmission of knowledge takes place effectively, information can easily be transported to crucial players.

Clearly, a very important place for knowledge transfer is in schools. Unfortunately, only a few data sources are available about the knowledge acquisition and transfer by indigenous people in the Venezuelan education system. No longitudinal studies have been carried out about the education levels of these indigenous people. However, with the help of a few resources a (possibly incomplete) picture can be drawn of the educational situation of the indigenous people. In table 3.1<sup>9</sup> we can find the indigenous educational attainment in Venezuela in 2002. For a large subsample of the indigenous population it was determined what level of education they had attended in their life. These data show us that at the time, less than six percent had finished an education of high school or higher. In the report on which the table is based, some longitudinal data are provided about attainment of preschool, primary school and special education between 1998 and 2002. These data reveal that during this period, attendance for all these three school types increased significantly (Ministerio de Educación Superior, República Bolivariana de Venezuela, 2004:24, 25). Unfortunately, I have been unable to obtain any data about school attendance that dates back earlier than that period.

<i>Education level</i>	<i>Number of people</i>	<i>Percentage</i>	<i>Accumulative percentage</i>
None	68.072	43,64	43,64
Preschool	8.109	5,20	48,84
Primary school	71.258	45,68	94,52
Special education	143	0,09	94,61
High school	6.097	3,91	98,52
Technical school	1.066	0,68	99,21
Superior technical school	313	0,20	99,41
University	906	0,58	99,99
Post graduation	20	0,01	100
<i>Total</i>	155.984	100	100

Table 3.1. Indigenous educational attendance at different levels of education in Venezuela in 2002. Based on: Ministerio de Educación Superior, República Bolivariana de Venezuela, 2004:27

<sup>9</sup> There is only one data source available about indigenous educational attendance, which is provided by the Venezuelan government. I have decided to use this data, while keeping in mind that the data is possibly displayed from a government's perspective.

The trend of increasing school attendance is one that has appeared on a national level as well. According to a UNESCO report about education in Venezuela, over the last ten years the number of children attending school has significantly increased. Furthermore, the country's Education for all Development Index (EDI) has also increased considerably. Venezuela's National Institute of Statistics reports that the poorest twenty percent of the population went to school for 3.72 years on average in 1998, and for 4.68 years in 2009. The richest twenty percent also increased their school attendance. In 1998 they attended school for 8.57 years and in 2009 for 8.82 years. Although relatively speaking the situation has improved more for the poor, these statistics reflect the continuing inequality as a result of income (Pearson, 2010).

Clearly, education does not only take place in the classrooms we are used to. In indigenous culture, knowledge is traditionally transferred orally from one generation to the next. However, the influence of outsiders has greatly influenced and disturbed this traditional education system. The arrival of oil workers on indigenous lands introduced new cultural values and diminished indigenous knowledge and traditions (Tinker Salas, 2009:101). Other intruders, such as missionaries had the same influence (see box 3.10).

### Box 3.10. Evangelism and preservation of culture

The following statement is made by Wadajaniyu, a member of the Ye'kuana tribe. Wadajaniyu is currently a member of the council of academic rectors in of the Indigenous University of Venezuela.

*“Evangelists first came to the Amazonas region a long time ago. I was a young boy when they started arriving. The type of evangelism that they brought was extremely hard on our communities. It took our culture and religion away from us. They would tell us that our religion was that of the devil and that our culture had no value because it was unwritten. My father always defended our culture and our community, however. They attempted to evangelize him but he didn't allow this to happen. My father, along with others in the community, actually forced those evangelists out. I have that story written down in a book I have at home. That is a treasure for me. I always have this story in mind when we are fighting for our land because my father was a leader in defending his culture.*

*The Nuevas Tribus evangelist group that Chávez expelled a few years ago took a lot of culture away from us. They did great damage to us. For example, our peoples in the Alto Orinoco were left with nothing. When you ask them about their culture, they have nothing to tell you. All they can do is respond about Jesus Christ. Nuevas Tribus brainwashed them and poisoned them with their own beliefs. I see these brothers and sisters lost, dead without their culture.*

*This is why I want to show our youth how to maintain their culture firmly, in the way that their ancestors did. In the Ventuari region, we have been able to maintain our culture. Those in the Upper Caura have also maintained their culture firmly. But our elders are slowly being lost without having written the knowledge of our ancestors. This is why we decided that we had to accelerate the education of our youth. If that knowledge is lost, our youth are left with nothing, without a weapon to defend themselves”* (Martinez et al., 2010:199).



Ye'kuana girl wearing her traditional Ye'kuana costume (Carreño, 2010).

## Proxy indicator b: Diversity of types of knowledge

Having different types of information at one's disposal is important for indigenous groups to become or stay resilient. Both experiential and experimental types of knowledge are important, as well as traditional and Western types of knowledge (Becker & Ghimire, 2003:9).

As we have seen, today many indigenous people still do not have access to any (Western) education at all. In 2002 only 0.58 percent of all indigenous people had followed a university education (Ministerio de Educación Superior, República Bolivariana de Venezuela, 2004:24, 25). Thus, only few indigenous people have access to Western types of knowledge.

However, a group of indigenous people has recently come up with a very promising initiative for the acquisition and transfer of both traditional and Western knowledge. With the creation of the new Venezuelan Constitution in 1999, the right of indigenous people to their own education was recognized. Shortly after this, a small group of indigenous people coming from different tribes decided to take advantage of this new situation. They jointly founded the Indigenous University of Venezuela (IUV). Initially, the university had only a few students, but that number has now already grown to seventy (Fox et al., 2009). *“The Indigenous University of Venezuela exists within this challenging space between opportunity and obstacles and provides a remarkable example of the aspirations of the indigenous movement. Fortified by Article 121 of the Venezuelan Constitution, which gives indigenous peoples the right to develop their own education, four indigenous communities came together to create a space where their youth can be educated as the defenders of their original ways; able to resist the onslaught of the Western world upon their peoples.[...] Eight distinct ethnic groups now attend the university: the Warao, Pemón, Kariña, Pumé, E'ñepa, Piaroa, Sanema, and Ye'kuana. An autonomous project seeking recognition from the national government, the Indigenous University highlights the fragile and complicated relationship between Venezuelan social movements and the state. While they draw strength from the Bolivarian Constitution and the importance the Chávez government has placed on indigenous rights, they still find themselves having to navigate independently and sometimes even defensively within the world of Venezuelan politics. Nonetheless, it is through projects such as the Indigenous University of Venezuela and the battle in which it is engaged that Venezuela's constitution is being transformed into reality”* (Martinez et al., 2010:196-197).

The creation of the IUV is a very important step forward for the indigenous population of Venezuela. Different types of knowledge and skills are taught there, traditional and Western, and experimental and experiential (see box 3.11 for examples of these). The students share the knowledge obtained during their study with their community after graduating. In this way, different types of knowledge that are important for the survival of the indigenous groups is preserved and spread.

It seems, however, that indigenous people in Venezuela still have a lot to learn in order for them to survive and maintain what is left of their cultures. At the moment, they do not have enough skills and knowledge to create and maintain a stronger movement. Obtaining knowledge about successful organizing and communicating to the outside world would be of great help to them. The Venezuelan indigenous movement could learn from the strategies indigenous groups in other countries have used to obtain their goals. According to Van Cott (2003), some indigenous leaders in Venezuela have indeed started to study the successful strategies of indigenous groups in countries such as Ecuador.

### Box 3.11. Experiences at the IUV

The following statements were made by a student and a member of the council of rectors” from the Indigenous University of Venezuela.

*“My name is Mecheduniya and I am Ye’kuana, from the municipality of San Juan de Manapiare, specifically from the Cacari community located in the Alto Ventuari sector of Amazonas State near the Brazilian border. I entered the Indigenous University of Venezuela as a student in 2003 and am now in the process of completing my thesis in order to graduate.[...] When I was growing up, my father educated me in an indigenous way. I would accompany him while hunting and fishing and while making our traditional crafts. Every time we would enter the jungle he would tell me the names of the hills, the canyons, the animals, and the plants. That was the education that I received as a child that I have taken up again here at the university. [...] On a general level, here we all learn how to be responsible, disciplined, and to live in solidarity with one another. Academically, we have various subjects such as indigenous history, indigenous education, indigenous law, ethnology, ethnobotany, and agroecology. We learn how to use the modern technology available to us as well. We also analyze the situation in each of our communities and how we should be contributing to them as the Indigenous University because we are all a part of our communities, we were chosen by them to study here. We learn how to take what we have learned here back to our communities and to record that information. [...] After finishing my time here I will return to my community because that is the responsibility we have. To continue the same kind of education, explaining the kind of work I have done here, collaborating with my community and elders. I have a lot of work to do. I now have a vision” (Martinez et al., 2010: 198-201).*



Students from the Indigenous University of Venezuela (La Revolución Vive, 2010).

*“My name is Wadajuniyu in Ye’kuana and Arturo Asiza in Spanish. I belong to the Ye’kuana tribe from the municipality of San Juan de Manapiare in the Venezuelan state of Amazonas. I am on the council of academic rectors in the University. [...] We are teaching in the jungle here. In the jungle we learn how to sing the traditional songs and to tell our stories. We use the materials from nature and put them to use in our communities. This is the case, for example, with the materials we use to make our drums and to make the sebucán, which we use to process our food. We teach them about the traditional medicines and how to make the dugout canoes and paddles from the trees. This is why we care for nature, because it is from nature that we live, that we eat. This is what we teach the students here by showing them the plants and the trees, telling them their names and what they are used for” (Martinez et al., 2010: 199-200).*

#### 3.4.1.3. Resilience factor 3. Social- and ecological memory

This last factor is related to the previous factor, knowledge. The knowledge and experience that are acquired over the years are a crucial part of the social system of indigenous people and should therefore be stored. This source of memory provides indigenous people with a framework to deal with current and future developments in an adaptive and creative way (Berkes et al., 2003:362, 366).

Proxy indicator a: The storage of information

As has been mentioned already, a lot of traditional knowledge that the many indigenous groups have

gathered over the years has been lost over time due to outside influences. Because of the changes in their living conditions, many indigenous groups had to take over aspects of Western lifestyles to survive, such as becoming part of the ruling economic system to provide their families with food. In most cases, this happened at the expense of traditional customs and knowledge. When natural habitats were destroyed, people lost their connection with nature, and with it the broad knowledge they had about natural systems.

Today, some progress is being made by the IUV to retrieve this traditional knowledge and spread it again in different indigenous communities. However, no clear system has been designed (yet) to store this knowledge in another way than in people's heads. I have found no books, databases, websites or libraries that have been created by indigenous groups for the storage of this type of information. The lack of storage facilities is seems to be related to their cultural tradition of oral transfer of knowledge. It is hoped that the new system of knowledge transfer that is created by the IUV will also focus on the documentation of this knowledge. It is important that the knowledge that is vital for the survival of indigenous groups in Venezuela is stored properly. This counts for both traditional as well as Western knowledge that is valuable for them.

Fortunately, other actors, such as researchers and NGO's have created databases, books and websites about some of the indigenous groups in Venezuela, their cultural traditions, and their struggles of dealing with oil (e.g. Minority Rights Group International, 2007; Haller et al., 2008). Although perhaps written by people that have a different worldview than they have, these sources of information can still be very useful for the indigenous people. The information about how indigenous groups have dealt with disturbances caused by oil development throughout history and the failures and successes they had, can provide them with a framework to deal with current and future developments in a more adaptive and creative way. They can also integrate the Western knowledge that is stored by others and is available to them; for instance about matters such as how legal systems, politics or the media work. This knowledge can be used by the indigenous movement to strengthen its organization and policies. Unfortunately, thus far this has not been done enough.

### **3.4.2. The impact of the oil boom on indigenous people and resilience**

Thus far I have analyzed the Venezuelan oil boom and the disturbances it has caused, as well as the resilience of the indigenous population. As has become clear in the first two chapters, I expect that the impact that the disturbances caused by oil development have on the indigenous population depends on the resilience of the indigenous population. During the analysis in this case study and the following ones, it will become clear whether there is evidence that supports the assumption that this link exist in reality.

In chapter two I laid out two hypotheses for this research. Firstly, I expected that if the resilience level of the indigenous people is high, it will have caused absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts. Furthermore, if the resilience level is low, it will not have absorbed negative impacts or stimulated positive ones. Secondly, I anticipated that if the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa. After doing this analysis, can we say that this has been the case in Venezuela?

Based on the scores on the proxy indicators I have created to measure resilience, the resilience of the indigenous population of Venezuela is low. The indigenous population has a low institutional diversity, with few, quite weak organizations. It has some links with other relevant actors, but is greatly restricted by the Venezuelan government and has lost an important part of its autonomy. The indigenous population also has limited means at its disposal. Although certain aspects of their living conditions have improved, a very large part of the indigenous population still lives below the poverty line. Its legal rights and political influence have recently improved, but it turns out that these changes have not substantially improved the power or opportunities the movement has in reality. The management policies indigenous people in Venezuela have used to deal with the disturbances caused by oil development have not been very successful, diverse or flexible either. They have not organized protest marches against oil development, and they have only been mildly successful at attracting media attention. However, a strategy of threat or violence to oppose oil development has been successful in a handful of cases.

In terms of knowledge, indigenous people in Venezuela score low. An important part of their traditional

knowledge has been lost over the years and their educational attendance is still low. Furthermore, they have not created a system to store valuable information in order to strengthen their social-ecological memory. However, it seems like the situation is improving slowly, with increasing numbers of school attendance and the recent creation of the Indigenous University of Venezuela. However, the indigenous people still have a lot to learn in order for them to survive and become successful at designing strategies that can buffer the negative effects of oil. Thus far, apart from some small successes such as the Bari people who have managed to keep oil development out of their territory, the indigenous population of Venezuela has generally not been able to absorb negative impacts from oil development or stimulate positive ones related to it.

Indeed, as we have seen, the disturbances caused by oil development have been very large in Venezuela. The country has a long history of severe social, environmental and ecological disturbances. In the northern part of Venezuela oil development has dramatically and permanently altered many aspects of the lives of the indigenous people. They have been unable to prevent many unwanted changes, such as severe pollution, forced labor, loss of culture and traditional knowledge, loss of livelihoods, and newly introduced diseases. Many indigenous groups were forced to abandon their traditional culture and lifestyle and are now living in poverty amidst oil fields.

Based on this assessment, for this first case study my expectations have been confirmed. The indigenous population has a low resilience level, and has not been able to prevent negative oil impacts from occurring, or turn them into a positive development. Furthermore, their systems have undergone fundamental changes in their functional characteristics. The case focused on the indigenous people in Venezuela thus seems to confirm the expected relation between resilience of indigenous people and the impact the oil boom had on them. However, for this analysis I have thus far singled out two factors and am looking at the possible relation between them. Clearly, this is a simplified description of reality. In complex matters such as these, reality is not as simple as that. Other factors, such as the size of the indigenous population and the magnitude and duration of the oil boom are important aspects to take into account as well. For now it is sufficient to state that this case study shows a link between resilience and the impact of oil as was expected, but the influence of other, external variables will be discussed in more detail in the final chapter of this thesis, where I will make a comprehensive analysis of all of the four cases.

## **CHAPTER 4. COLOMBIA**

### **4.1. INTRODUCTION**

In this fourth chapter, the oil boom in Colombia will be discussed. We will see that in Colombia, oil development has a strong link to violence and civil unrest. The indigenous peoples of Colombia are disproportionately affected by the negative effects that the oil industry causes, as well as by the general societal problems the country is dealing with. In the next section, the focus will be on the development of the Colombian oil boom as well as on the changes it has caused. In the third section of the chapter, the indigenous groups of Colombia will be introduced, as well as their relation to oil and the disturbances that oil has caused for them. Several specific cases of different indigenous groups will be discussed. In the final section of the chapter the resilience of the indigenous groups as well as the impact the oil boom has had on them will be laid out.

### **4.2. THE OIL BOOM**

#### **4.2.1. The political and economic context prior to the oil boom**

As is the case with most Latin American countries, Colombia's turbulent past has influenced its development to the country it is today. This section will give a short overview of the political and economic context prior to the oil boom.

The original inhabitants of Colombia consisted of tribes that migrated from what is now Panama and settled in groups scattered throughout the country. Their cultures developed rather independently of one another. In 1499 the first Spanish explorers set foot on Colombian soil. The first real Spanish settlement was built some twenty-five years later (Biblioteca Luis Ángel Arango, 2010). Because the Spanish were interested in Colombia's gold and other resources, from 1536 on, through warfare and alliances they conquered hundreds of indigenous tribes all over the country. They founded cities and villages, while relocating the indigenous population. After this, the Spanish started extracting minerals, while replacing traditional crops by export-oriented agriculture. Crops like potatoes, cassava and medicinal plants were replaced by coffee, bananas, cotton, tobacco and sugar (Kairos, 2010). The indigenous population was forced to work in mines, farms and in the suburbs. The difficulties the Spanish experienced in creating an indigenous workforce and the numerous revolts of the natives who worked in the mines led them to import slaves from Africa. (Todacolombia, 2010). However, these slaves also revolted against their subhuman living conditions. Many of them escaped to remote areas where they established towns where they were able to maintain their traditional lifestyles (Kairos, 2010).

Towards the end of the eighteenth century the general disillusionment about Spanish rule led to a rebellion. This, combined with the occurrence of events such as the invasion of Spain by Napoleon Bonaparte, made obtaining independence from Spain possible. In 1810, the citizens of Bogotá created the first representative council to defy Spanish authority. In 1812, Simón Bolívar, who became a hero in the independence struggle, took offensive against the Spanish armies. Bolívar was able to win six battles but was eventually pushed back and colonial rule was reestablished in 1817. However, after reassembling his army Bolívar marched over the Andes into Colombia once more, this time being supported by a British legion. The last and decisive battle took place on August seventh, 1819. With it, Colombia's independence was won.

As I also mentioned in chapter three, a few years after Bolívar had defeated the Spanish, the Republic of Gran Colombia was formed. The new republic included modern-day Ecuador, Colombia, Venezuela and Panama. Bolívar was elected to be president and Francisco de Paula Santander became vice president. However, it soon became clear that the central regime was not able to govern its large territory. The regime started to disintegrate. In 1830, Gran Colombia split into three separate countries (Kairos, 2010; Palmerlee et al., 2007:545).

In Colombia, conflicts emerged between the followers of Bolívar and Santander. This led to the

establishment of the Conservative and Liberal Parties in 1849, which have dominated Colombian politics ever since. The fierce rivalry between the two parties led to chaos and violence. Between 1863 and 1885, over fifty anti-government insurrections took place. In 1899 a revolt led by the Liberals developed into a civil war, the War of a Thousand Days. The civil war led to a victory for the Conservatives and had a death toll of 100,000 (Palmerlee et al., 2007:545).

In the beginning of the 20<sup>th</sup> century the US took advantage of the internal chaos and stimulated the creation of a secessionist movement in Panama, then a Colombian province. In 1903 Panama became a separate republic, which made it possible for the US to build a canal across Central America (Palmerlee et al., 2007:546; Kairos, 2010).

#### **4.2.2. The development of the oil boom**

The first sign of the development of the oil industry in Colombia dates back to 1905, when contracts were signed for two oil concessions. However, it is generally stated that Colombia's oil history began in 1918, when the enormous 'La Cira-Infantas' oil field was developed. In the early 1950s, an oil workers strike led to the establishment of Ecopetrol, Colombia's state-owned oil company (Haller et al., 2008:427). In the mid-seventies, due to low levels of exploration, Colombia's oil sector experienced a crisis. However after this, with technological innovation, increased foreign capital, and new oil legislation, oil development increased gradually, reaching its golden age at the end of the 1980s and the beginning of the 1990s (Echeverry et al., 2009:1; Haller et al., 2008:427). The oil sector in Colombia has been growing rapidly during the last years. Currently, forty-seven percent of all export income in Colombia is derived from oil (Ministerio de Comercio, Industria y Turismo, 2010). In May 2008 there were 115 oil production areas, which were operated by twenty-four oil companies. At the same time, 153 areas were under exploration, operated by sixty-three companies. For the transport of its oil and gas, Colombia relies upon a network of 13,000 kilometers of pipelines (Mingorance, 2008:13)<sup>10</sup>.

##### **4.2.2.1. Political processes and changes**

Colombia's political instability has a long history, and it continued in the era of oil. In the first part of the twentieth century, the introduction of foreign capital and industrialization led to the creation of different militant labor and peasant movements. These movements were repressed with violence. When the leader of the Liberals, Eliécer Gaitán, was assassinated in 1948, this led to massive riots. A period of civil war, called 'La Violencia' (the violence), followed, in which the Liberals took up arms against the Conservatives. The Colombian oligarchy used paramilitary death squads and hired assassins, called 'pájaros' (birds). People in rural areas got caught in the middle of the conflict and also armed themselves for self-protection (Kairos, 2010). The death toll of the war was around 300,000. During the civil war Liberal guerillas started to show a dangerous degree of independence and it became clear to both parties that the country was falling apart. The Liberals and Conservatives therefore jointly held a military coup in order to restore order. General Rojas Pinilla was the leader of the coup. He promised to stop the rural unrests and restore lands to their rightful owners. However, conflict and repression continued. Rojas Pinilla was overthrown and the Liberals and Conservatives agreed to a joint rule, the 'National Front'. To the disappointment of many, the new joint government also failed to address the major problems that prevailed. This sparked the beginning of today's guerilla movements (Kairos, 2010).

During the late 1950s and early 1960s, armed peasant groups that had retreated in Colombia's rainforests merged into alliances. These groups demanded that corruption in politics would stop and that radical land reform would take place. From these movements about a dozen different guerilla groups emerged. Each of them had ideologies and focused on different political and military strategies. The movements that are considered to have had the biggest impact are the FARC (Fuerzas Armadas Revolucionarias de Colombia), the ELN (Ejército de Liberación Nacional) and the M-19 (Movimiento de 19 de Abril). Until 1982, the guerillas were seen as a threat to public order. In that year, President Belisario Betancur tried to start negotiations with the guerillas, but these failed. However, a few years later the guerilla group the M-19

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<sup>10</sup> I have not encountered any useable maps portraying oil development in Colombia. However, the maps in section 4.3.3 on the indigenous population and oil development can provide the reader with insights about the locations of oil extraction and exploration in the country.

signed an agreement to hand over its arms and transform itself into a political party (Palmerlee et al., 2007:546).

In the 1990s internal conflicts and violence increased further. Carlos Castaño, a paramilitary leader created an organization consisting of several death squads called the AUC (Autodefensas Unidas de Colombia). All over the country massacres of peasants took place. *‘Trade unionists, educators, community activists, radical clerics, left-wing politicians, or anyone deemed sympathetic to the guerrillas were denounced as subversives and many were killed’* (Kairos, 2010). The FARC and the ELN were also active during this time and controlled large parts of the country. For their finances, they depended on kidnapping and extortion and the trafficking of drugs. They have killed many and attacked military outposts as well as oil pipelines and drilling stations. Because of the attacks directed at oil companies, the Colombian army has been assigned to protect them. The guerillas have also demanded that oil companies would provide quotas for workers, and have threatened them with kidnappings (Haller et al., 2008:437).

During the presidency of Andrés Pastrana an attempt was made to come to a negotiated solution between the government and FARC and ELN to create peace in the country. Massive civil society mobilization took place to protest and request peace. The negotiations were ineffectual, which led to Pastrana starting the implementation of ‘Plan Colombia’. This multibillion-dollar plan, largely financed by the U.S., aimed at strengthening the Colombian state and ending violence and drug trade. However, the operations of Plan Colombia, and the later convergence of the war on drugs with the war on terror of the U.S., undermined further negotiations for peace-building (Isacson & Rojas Rodríguez; Bouvier; Jones, Mitchell & Ramírez; in: Bouvier, 2009:5, 24-26, 28, 356).

The next and current president Alvaro Uribe applied a strategy of more military pressure on militant groups. Mostly by pressure from the Colombian and U.S. military, security improved. Between 2000 and 2007, Colombia received over five billion dollars from the U.S. Over three-quarters of this money went to the Colombian military and police for counterinsurgency and anti-narcotics operations and the protection of oil pipelines (Bouvier, 2009:5). During the last decade the violence in Colombia has decreased. In a (controversial) peace process with the government, demobilization of several paramilitary was established and the number of guerillas went down. The remaining guerillas have less control over certain areas and the number of assassinations has gone down. However, the country continues to be unstable and plagued by armed conflict and drug trade. Furthermore, oil related corruption has increased (Mingorance, 2008:41).

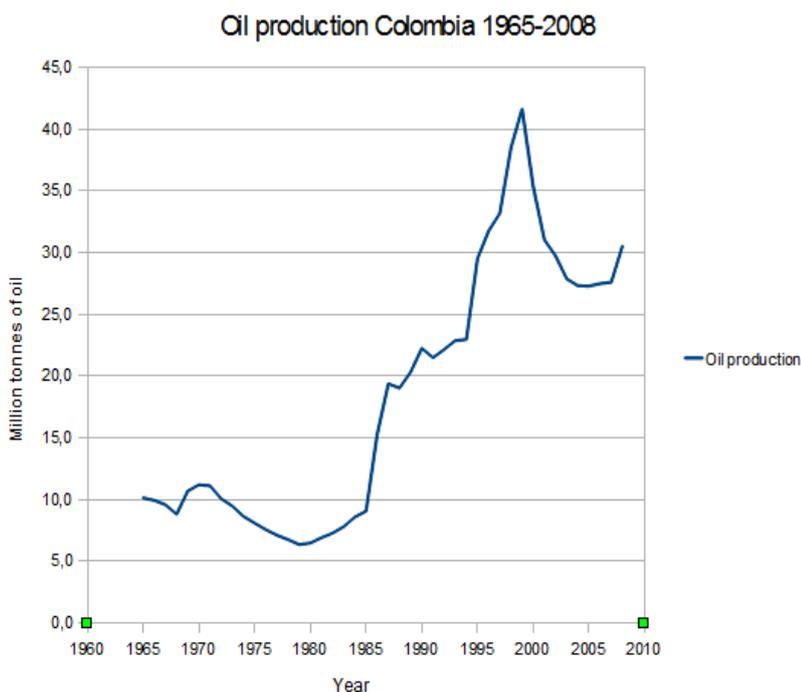


Figure 4.1. Oil production in Colombia between 1965-2008. Based on BP, 2009.

#### 4.2.2.2. Economic processes and changes

The economic processes related to oil development that have taken place can be divided in several stages. Echeverry et al. (2009:3-5) divide oil development in Colombia into three main periods.

The first period took place between 1918 and 1969. In this period, technological innovation and capital played a very important role as engines to start up and develop the oil industry. Several large oil fields were found. The promising potential for oil development attracted a lot of foreign investment, as well as international oil companies like Exxon, Chevron, Shell and Mobil. Later during this period, Ecopetrol, the Colombian state owned company, was founded.

The second period lasted from 1970 to 1994. This period started with an oil crisis. However, soon after this two new major oil discoveries took place, the Caño Limon in 1983 and Cusiana Cupiagua in 1992 (Mingorance, 2008:7). Because of these and other discoveries, Colombia became an area of focus for the big oil multinationals, also because contractual terms were attractive for them. Exploration and extraction gradually intensified. However, after some success stories of extraction new contracts were modified to increase the share of the oil revenues that would go to the state. This led to an almost complete loss of competitiveness for the new contracts. However, because of the promising prospects, explorative activity still increased significantly.

The third period started in 1995 and still continues today. In this period, capital necessary for exploration and technology was no longer an exclusive asset of large oil companies. Service companies now also provided the necessary technologies and started to participate in the exploration and extraction of oil too. They thus became operators themselves. However, during the third period, the number and the size of new discoveries started to decrease. Oil production reached a peak in 1999 and then declined (see figure 4.1). Colombia became concerned with keeping its name as an oil exporting country. It became occupied with increasing its resource base and maintaining its output levels. The oil sector was restructured, oil regulation was changed and the National Hydrocarbons Agency was created in 2003. With decreasing output and no major new discoveries, the investment risk for oil companies increased (Echeverry et al., 2009:3-5). To prevent the decrease of investments, the state decided to relax contractual rules in favor of the oil companies. Colombia enacted a new Oil Code, which was written with the help of the Canadian International Development Agency. Several of the Canadian co-creators of the new Oil Code were at the same time consultants for Canadian companies that had oil investments in Colombia (Gedicks, 2003:95). The payments of oil companies to the state were reduced to the absolute minimum. Environmental licenses have also been made 'more flexible' to reduce costs further for the oil industry. It is hoped that the availability of oil contracts with new terms will compensate for the investment risk oil companies face. While before it was obligatory for international companies to let the national oil company Ecopetrol enter new oil developments as a partner, this is now cancelled. The investor can now, after paying taxes and royalties to the state, keep all oil revenues (Mingorance, 2008:11).

For oil companies, the continuing instability and violence have been and are other large risk factors. The risk of being attacked and of having oil pipelines destroyed causes significant economic disadvantages. The government therefore militarized the oil industry. Part of the militarization of the oil production and pipeline zones involves a "war tax" of one dollar per barrel on foreign oil companies to pay for the protection provided by the armed forces. Oil companies spend eight percent of their investment on security in Colombia. For the rest of Latin America this number is one percent. One out of four Colombian soldiers is devoted to protecting oil installation (Gedicks, 2003:94).

The discovery and exploitation of oil, as well as of other resources like coal and gold, has led to an increase in investments made by multinational corporations in rural areas. Economic liberalization policies shifted the economy of agricultural production to one that is primarily focused on mineral and oil production for export. Another important economic stimulus that appeared at the expense of the production of food crop exports is growing and trafficking of narcotics. Today more than ninety percent of the cocaine and around half of the heroin consumed in the U.S. is produced in or transits through Colombia. The Colombian cocaine is also increasingly finding markets in Brazil, Europe and Africa (Bouvier, 2009:4). Furthermore, since the early 1990s Colombian governments have reduced tariffs and customs on US food products, which drove local producers out of business. '*Between 1992 and 1999 annual crops on over 2 million acres were abandoned as agricultural imports jumped from 800,000 tons in 1990 to 3 million in 1995, to 7 million in 1999*' (Gedicks, 2003:88). The small agricultural producers were driven out of business by the cheap food imports. Many of them had no other choice than to shift to the illegal growing of coca.

It seems like Colombia has not been able to profit from its oil wealth. According to official government statistics, in 2006 49,2 percent of the population was living in poverty. However, according to critics these numbers are even much higher (Martinez, 2006). Furthermore, the national debt has increased strongly. During the 1980s Colombia managed to keep its debt at around seven percent of the GDP, but in recent years it increased to thirty percent. In 1998 Colombia's debt was thirty-five billion dollars (Encyclopedia of the Nations, 2010).

#### 4.2.2.3. Social processes and changes

The civil war that has been going on for many years can be seen as one of the most important social development during the oil era in Colombia. When looking at statistics, Colombia is a world leader in violence. After Sudan, Colombia has the largest population of internally displaced people in the world, which is estimated between two to four million people. With more than 1100 victims of land mines in 2006, the country has the most land mine accidents in the world. Colombia is also known as the “kidnap capital of the world”, with over 17,000 people kidnapped between 2002 and 2009. Among these people were presidential candidates, business people, government ministers, prominent legislators and U.S. contractors. Even though the number of kidnappings has declined somewhat the last few years, kidnapping is still one of the main means to sustain war efforts (Bouvier, 2009:4-5). Furthermore, the increasing power of the Colombian military over citizens, as well as the increase of foreign financial support to it raises serious concerns among human rights advocates, since the Colombian army is the worst abuser of human rights in the hemisphere (Gedicks, 2001:53).

There is a relative lack of attention to the conflict in Colombia in the world. But if the war in Colombia has received little attention, the drive for peace by Colombia’s civil society has received even less attention. However, since the mid-1990s a multitude of non-governmental organizations started to develop at a rapid pace. These groups focused on non-violent solutions, negotiations and the education of fellow citizens. When the government of Ernesto Samper was not able to respond to all the violence, civil society movements started to fill this void. Civil society groups met with guerilla groups to develop negotiation agendas. Large peace gatherings also became an important tool for activism. Civil society’s peak year was 1999, when during a mobilization campaign known as “No Más” (No More) 2,5 million people took part in forty marches between April and September and over eight million people mobilized on the 24<sup>th</sup> of October, participating in marches and events throughout the country. However, paradoxically, the negotiations between the guerillas and the government that civil society groups struggled to create actually weakened these civil society groups. The government as well as the guerillas excluded them from the negotiations and the country was left in the dark about the developments that were going on. Progress made by the civil society actors slowed and they were struggling to get their voices heard. Around the time when Uribe became president in 2002 and earlier negotiations had collapsed, part of the citizens started to lose faith in democratic and non-violent peace building. Uribe’s campaign stimulated a left-right split in the peace movement, recruiting many for the elite/business wing. Advocates of the idea of renewed negotiations were now seen as “soft” on the guerillas, or even as their supporters. Currently, Colombia’s civil society peace movement is experiencing its most difficult time of its existence. However, a multitude of initiatives is still taking place. A series of regional peace and development programs or peace laboratories, combining participatory development projects and active conflict resolution, have sprung up in several localities throughout the country. (Bouvier, Isacson & Rojas Rodríguez, in: Bouvier, 2009:6, 20, 22-25, 30-34, 36).

Next to the continuing violence, inequality is an important problem in Colombia. The country has one of the highest scores in the world on the Gini Index, implying that inequality is extremely high. Money from oil and other resources is not reinvested in the economy, let alone in social projects to uplift the poor (Worldbank, 2007; NationMaster, 2010(2); Haller, 2008:431).

The activities of oil companies have caused specific social effects in Colombia. Many areas where oil exploration or exploitation activities take place overlap with indigenous territories. As we will see in later sections of this chapter, the presence of oil companies has led to the human rights violations and has negatively affected their social, cultural and economic systems. Oil development has also led to mass-migrations of settlers into indigenous territories, and has made their territories accessible for guerillas and the army. This has increased conflict and violence in the areas near oil development (Mingorance, 2008:42).

#### **4.2.3. The Colombian oil boom and the resource curse**

It has become clear that over the years oil drilling has caused, and contributed to, political, economic, and social changes in Colombia. How can we take stock of the changes that have taken place?

In Colombia, oil development is increasingly becoming linked to other aspects of society. But does this mean that the Dutch disease phenomenon has developed in the country? According to several authors, this is the

case (e.g. Thomson Reuters Foundation, 2010; Karl 1997:89-90; Semana, 2010). According to them, oil companies have been obtaining large sums of money by manipulating or exploiting political mechanisms and the economic environment of the country. Furthermore, other economic sectors have become less competitive and started to decline. The large influx of energy and mining dollars has sent the peso higher, making other exporters uncompetitive. It has become clear that the Colombian economy largely depends on oil, with forty-seven percent of its export revenues being derived from it. Thus if oil revenues fall, the country will most likely experience large economic problems.

Colombian politics has remained very unstable, and mass unrest and extreme violence have been very common in the country. Oil development is not the sole cause of these problems, but it has clearly had negative effects in society, such as increased corruption, and the ongoing conflict and violence that is taking place between oil companies and guerilla activists. Furthermore, oil development has not led to increased equality in the country and the poverty levels remain very high.

When summing up all the foregoing, I conclude that in Colombia oil has thus far been a curse, and not a blessing.

As aspect that has not received much attention yet, is that oil development has negatively affected the culture and living conditions of many indigenous groups living near it. In the next section I will focus more on the relation between indigenous groups and oil development in Colombia.

### 4.3. INDIGENOUS PEOPLE IN COLOMBIA

#### 4.3.1. Demographics of indigenous people

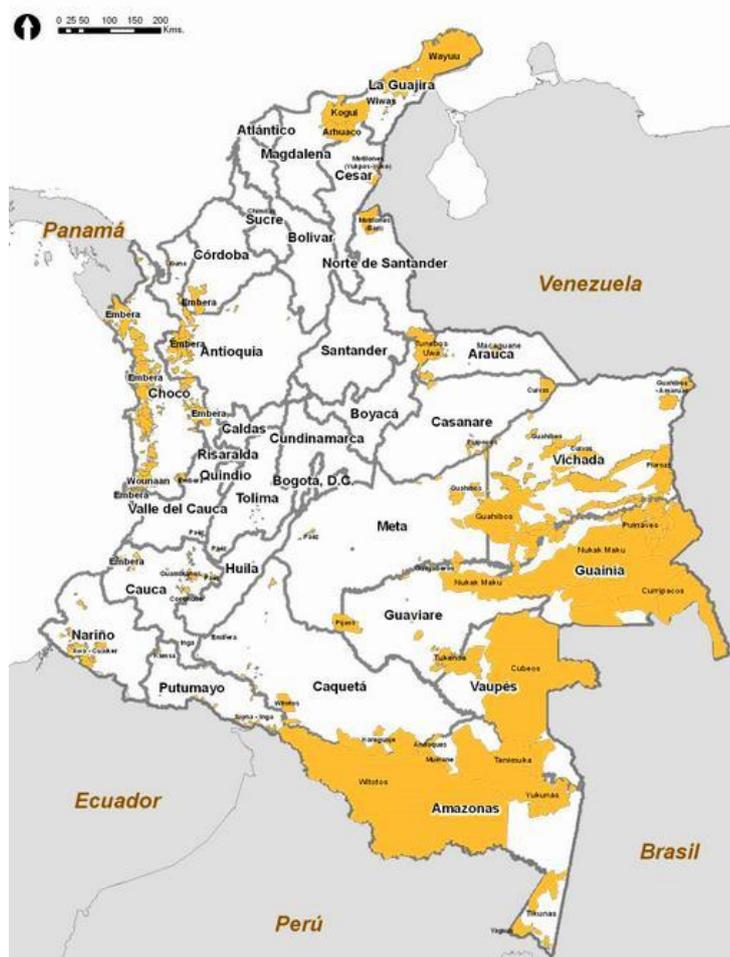


Figure 4.2. Legally recognized indigenous *resguardos* (reserves) in Colombia (yellow) (Adjusted from ACNUR/UNHCR, 2010)

The population of Colombia consists of over forty-five million people. Colombia's population is composed of many different groups: fifty-eight percent consists of mestizos (mixed white and indigenous ethnicity), twenty percent are of European descent, four percent African. The rest of the population is a blend of different ethnicities, except for the indigenous peoples, who only represent two to 3.4 percent of the population (depending on which source of data is followed). This translates to 900,000 to 1,530,000 indigenous people (Van Cott, 2001:26; Haller et al., 2008; Palmerlee et al., 2007:548; Amnesty International USA, 2010).

Thus, the size of the indigenous population in Colombia is relatively small. Nonetheless, the number of different indigenous groups is very high, and estimated at between eighty-five to a hundred and two groups. A few of these many groups are the Barí, Kokoma, Cofán, Chimila, Awá, Muisca, Inga, Yanacoma, and the Tama. Around three quarters of the indigenous groups live in the Amazon region in the eastern part of Colombia, and half of them live in the departments of Guainía, Vichada, Vaupés, La Guajira, and Amazonas. Most of these areas are rich in oil reserves. (Amnesty International, 2010).

For part of the indigenous groups, ‘resguardos’, or nature reserves, have been created in which they can live. It should be noted that these resguardos should not be confused with ‘indigenous territories’, but are only those parts that are legally recognized by the state. They do not always include traditionally inhabited areas, nor those which are sacred, or which have been invaded or stolen, nor others that are claimed by indigenous groups. The legally recognized resguardos can be seen in figure 4.2. However, around 445,000 indigenous people in Colombia live outside of these reserves. Furthermore, many indigenous representatives living in resguardos have said that much of the land that has been allocated to them is unsuitable. Less than eight per cent of reservation land is suitable for agriculture (Amnesty International USA, 2010; Mingorance, 2008).

#### **4.3.2. History of the indigenous people**

As I already mentioned in section 4.2.1, after the Spanish arrived in Colombia, they found out that indigenous people were using golden objects, which initiated their search for gold. They conquered hundreds of indigenous groups all over the country and forced them into slavery, working in mines or producing export-oriented crops that were sent to Europe (Kairos, 2010; Biblioteca Luis Angel Arango, 2010).

From 1832 onwards, the Colombian state promoted the division of natural areas into resguardos. This was done with the goal to privatize all lands and to liberalize indigenous people. In most cases the division of land for resguardos took place to the detriment of indigenous groups. An unjust system in which indigenous people were exploited was established (Benavides Vanegas, 2009).

In the late nineteenth and early twentieth century, large-scale rubber plantations were created on indigenous lands. Around the same time, oil exploration and exploitation started, which steadily increased in scale and impact. From the 1970s onwards, coca plantations were another unwanted development on the lands of the indigenous groups. During all of these economic developments, indigenous peoples have experienced displacement, the loss of their cultures, discrimination and assassination (Gedicks, 2003:102).

Twenty-eight percent of Colombia is now legally recognized indigenous territory. A significant part of the country's oil reserves lay under these indigenous lands. Of the 115 oil production sites, nineteen are situated directly in the indigenous territories, and twenty three others are located within a three kilometer radius. Of the oil 153 existing oil exploration sites, ninety directly affect indigenous groups, and thirty-seven other ones come within a three kilometer radius of their territories (Mingorance, 2008:17, 20; Zuluaga & Jones, 2005:55).

#### **4.3.3. Indigenous people and the disturbances caused by oil**

In this section I will focus on the disturbances indigenous people in Colombia have experienced because of oil development. The oil boom in Colombia has thus far been intense. Has it therefore also caused large-scale disturbances for the indigenous population? Seventy percent of the areas that are, or are capable of being, explored and exploited by oil companies are in resguardos with indigenous groups living in them (Mingorance, 2008:11) (also see figure 4.3-4.5). I will now focus on the social, environmental, and economic disturbances they have experienced.

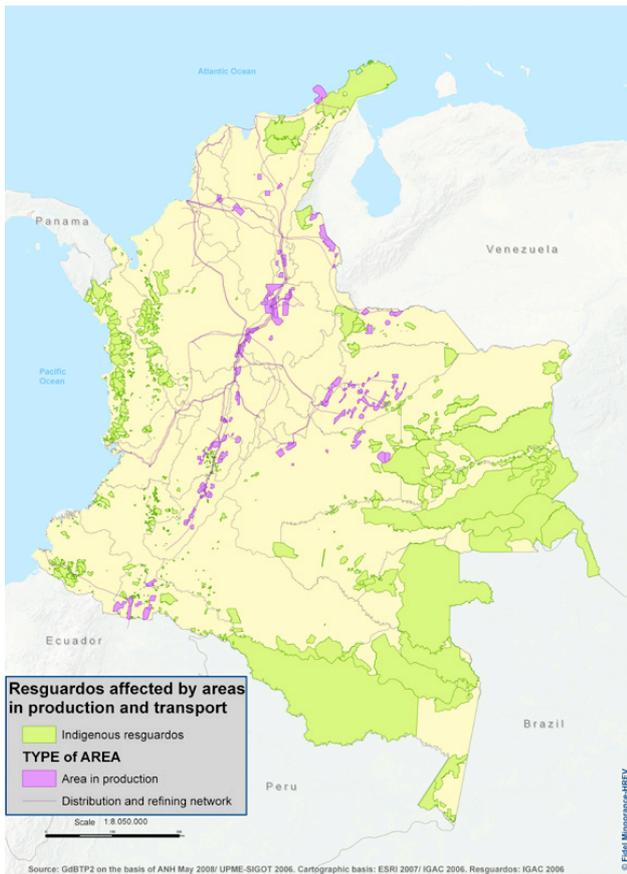


Figure 4.3: Indigenous *resguardos* affected by oil and gas exploitation and its infrastructure, May, 2008. (Mingorance, 2008:19)

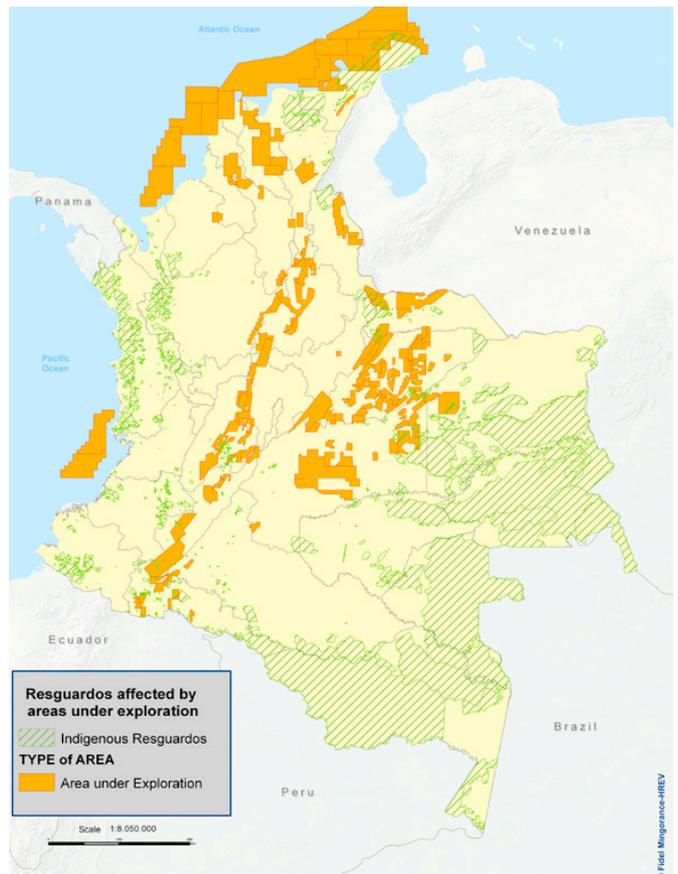


Figure 4.4. Indigenous *resguardos* affected by oil and gas exploration, May, 2008. (Mingorance, 2008:21)

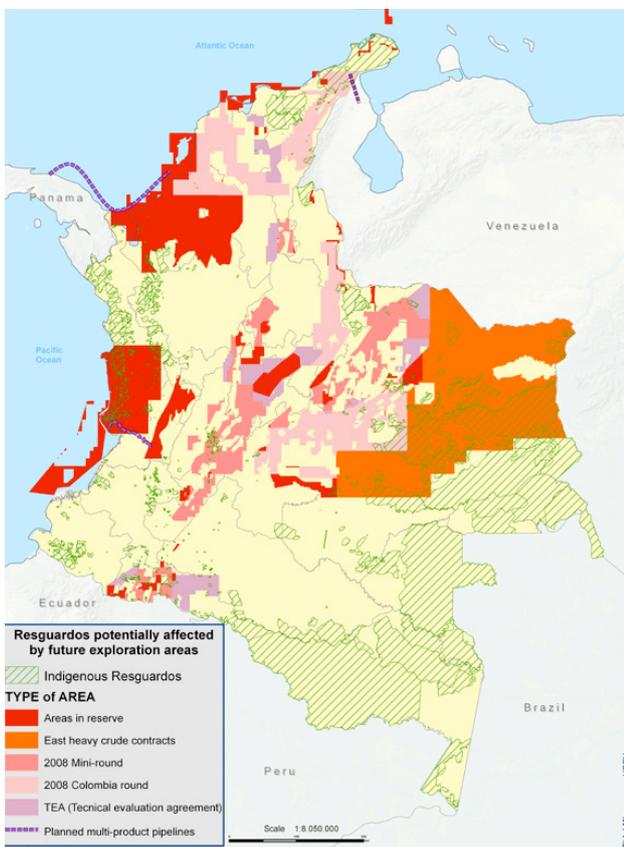


Figure 4.5. Indigenous *resguardos* that are likely to be affected by planned oil and gas exploration and production projects, and their infrastructure, May 2008 (Mingorance, 2008:26).

## Social disturbances

Oil development has caused large disturbances for many indigenous groups. In the worst cases, certain indigenous groups even completely vanished. There is historical evidence that indicates that the Yariguíes, a tribe belonging to the language family of the chibchá, has become extinct. This extinction has a connection with oil development. The Yariguíes were discovered by Standard Oil in 1920. Standard Oil described them as *“ill, malnourished, unused to disciplined work, as dangerous as poisonous snakes and head-hunters”*. Within twenty years after their encounter with Standard Oil the entire tribe had disappeared under unknown circumstances. Since then, more indigenous groups have disappeared that were introduced to oil development. Furthermore, many other groups lost community members or parts of their territories to oil. In Catatumbo, the Barí were expelled and lost two-thirds of their territories. In 1960, sixty-five percent of the population of the Putumayo Department was of indigenous descent. Currently, this number has decreased to only ten percent (Haller et al., 2008:436).

Due to the invasion of their ancestral lands by outsiders, many indigenous groups have big parts of their culture and traditions and can no longer maintain a self-sufficient lifestyle. Furthermore, many communities were affected by the Western diseases that were introduced to them by outsiders (Cusaría, 2004:14). The arrival of the oil companies and settlers has also led to other problems for the indigenous people. Because their territories have become accessible to the outside world, they are now experiencing violence, oppression, displacement and murder caused by guerillas as well as military forces. A major study of the impact of large projects on native lands even *“singled out the oil industry as especially harmful to native peoples, promoting a breakdown in the native economy and culture and causing the extinction of certain native groups”* (Gedicks, 2003:87). Furthermore, in the areas where oil development and other types of resource extraction take place the highest numbers of forced displacements, murders and kidnappings are found (Gedicks, 2003: 87-88). The oppression of rights of the indigenous people in Colombia is a topic that has hardly been recognized and discussed in Colombian research or in the media. Since 1991 the Colombian Constitution legally enshrined the rights of the indigenous people. However, indigenous groups still suffer the constant violation of their basic rights. *‘The problem has accelerated so greatly over the last decade that many analysts, especially anthropologists, have labeled the repressive situation in Colombia as an act of genocide or ethnocide’* (Zuluaga & Jones, 2005:55). Box 4.1 describes the observations of a UN special rapporteur on the threat indigenous people face, and box 4.2 focuses on a specific indigenous group named the U’wa.

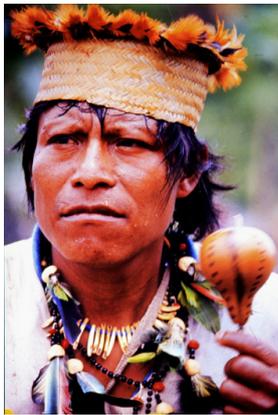
### Box 4.1. Threats to indigenous groups

Special rapporteur Rodolfo Stavenhagen reports on the situation of the indigenous people in Colombia.

*“Of particular concern are the threats of extinction hanging over several of Colombia’s communities. At least 12 small indigenous peoples living in Amazonas find themselves on the brink of extinction as a result of all these processes (armed conflict, illicit crops, environmental destruction, economic megaprojects) and their impact on the population’s living conditions (forced displacement, selective killings of leaders, destruction of the subsistence economy, deterioration in health and disintegration of the social fabric of the community and of its particular cultural identity). Among the Amazonian indigenous peoples, 40 per cent are thought to be at high or very high risk. Some of the most vulnerable groups are the Awa, Kofan, Siona, Paez, Coreguaje, Carijona, Guayabero, Muinane-Bora, Pasto, Embera and Witoto peoples in the departments of Putumayo, Caqueta and Guaviare. Their situation represents a humanitarian emergency of considerable proportions, but the measures taken thus far by the State and various private and international agencies seem inadequate to deal effectively with the crisis”* (United Nations, 2004).

#### Box 4.2. The U'wa and social changes

*'The approximately 5000 U'wa have virtually maintained their traditional lifestyle of swiddening agriculture and their social and cultural practices. They lead an extremely secluded life in the foothills of the Sierra Nevada de Cocuy in the north-east of the country, between the Departments of Boyacá, Santander, Norte de Santander, Arauca and Casanaré. The population density in their territories is well below one inhabitant per hectare. During the conquest of Colombia by the Spaniards, the U'wa retreated far back into the hills to escape enslavement. Even after the Spaniards had departed the U'wa continued to live in seclusion and peace for centuries. Around 1940, 20,000 U'wa lived in an area that extended from southern Venezuela to the Departments of Arauca, Boyacá, and Santander. During the 1940s and 1950s, the first road in the territory of the U'wa was constructed at the behest of the Catholic Church and the government. Peasants fleeing the civil war settled along the road and in the surrounding areas and then competed with the U'wa over their resources. Missionaries settled in the immediate vicinity of the U'wa. On the one hand they provided medical assistance for the diseases brought in by the new settlers and on the other, they interfered with the ceremonies of the U'wa and brought their children into the mission compound so as to bring them up as Christians. By 1982, almost all the U'wa residing in the vicinity of the mission compound had disappeared. Between 1940 and 1970 85% of the U'wa territory was handed over to the new settlers by the government and the authority of the Catholic Church increased. In a span of 40 years, 18,000 U'wa died due to the diseases brought in by the settlers, violence and the loss of land. Two clans of the U'wa became extinct'* (Haller et al., 2008:417-418).



U'wa leader (Enajenación Mundial, 2010)

#### Environmental disturbances

The oil boom has caused large environmental disturbances for the indigenous people in Colombia. For the process of finding oil, or oil exploration, oil companies have created roads near, or into the territories of indigenous groups, which has made it possible for settlers to enter these areas. The settlers have set off a process of increased urbanization, creating new villages, pastures and infrastructure. This has led to fragmentation, pollution, a loss of biodiversity and dispersion. Furthermore, the exploratory activities themselves have led to the destabilization of natural slopes, the changing of the course of rivers, increased logging and pollution.

The process of taking oil out of the ground, or oil exploitation, has led to large-scale pollution. Contaminated water and oil waste has been dumped into rivers and has penetrated into layers of groundwater, oil pipelines have broken, nature has been disrupted by noise, and the flaring of unneeded gas has caused pollution of the air. For the transport of the oil, more roads and pipelines are crossing through the natural areas (Cusaría, 2004:14). With the new mega projects that are planned for the future, it is very likely that environmental pollution and disruption will increase further. As can be seen in figure 4.5, the new oil development overlaps indigenous lands to a large extent, which means that they will probably experience an increase of disturbances.

Guerilla movements have bombed and sabotaged oil pipes and drilling stations, leading to large oil spills (see table 4.1). Especially the attacks on the country's main oil pipeline have damaged the environment greatly. The water quality in the areas of the bombings has decreased significantly (Kurtenbach, in: Bouvier, 2009:389).

	2001	2002	2003	2004
All pipelines	263	74	179	103
Caño Limón Coveñas pipeline	170	41	34	17

Table 4.1. Attacks on oil pipelines by guerillas, 2001-2004 (Veillette, 2005:14).

#### Economic disturbances<sup>11</sup>

In the constitution of Colombia, 429 resguardos have been allocated to indigenous people. Nearly ninety percent of these are located in the Amazon and Orinoco river basins. The other ones are mainly located in the departments of Antioquia, Cauca, Choco, Cordoba, La Guainia and Norte de Santander. All territories together total about 300,000 square kilometers, which is twenty-eight percent of the country. Looking at these numbers gives the impression that the indigenous groups have quite a large amount of habitable land at their disposal. However, most of the land they have legal title to is not suitable for farming or subsistence lifestyles. The lands are very valuable in terms of biodiversity, since ninety percent of Colombia's biodiversity can be found in indigenous territories. This makes them also very vulnerable to outside influence. There are many actors that are trying to gain control over parts of the indigenous lands, which often leads to violence and destruction. Oil companies, but also guerillas, the government, the military, drug traffickers and landowners threaten the indigenous people with violence, displacement, land fragmentation and pollution (Zuluaga & Jones, 2005:55). The influence of outsiders has led many indigenous groups to abandon their traditional lifestyles to a large extent. They can no longer live off their lands and be independent, but have to rely on outsiders for part of their diet. They increasingly have to become part of the non-indigenous market system for their survival. An example of an indigenous group that had to change its economic system due to the direct and indirect influence of oil companies is provided in box 4.3.

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<sup>11</sup> There is very little literature to be found on the economic disturbances indigenous people have been experiencing. I will have to rely heavily on only a few resources for this analysis.

#### Box 4.3. The U'wa and economic changes

*“The economic activities of the U'wa are located in their religious worldview and are closely linked to their ceremonies. The U'wa are farmers but are not settled in one place. In the course of the year they live in three different zones. Depending on the altitude of their respective zone, tierras bajas, piedemonte, and montaña, they use different techniques for procuring food - thus, apart from farming, they also originally hunted, fished, and gathered forest produce. [...] Most of the families own houses in these three different climatic areas.*

*Earlier hunting was important for procuring food, but even then, there were certain protected zones, which could not be used, where no hunting or farming could be pursued. Today, the animals have been decimated to such an extent that hunting is no longer practiced. On the one hand, the U'wa no longer own sufficiently large hunting territories because of the land they have lost, and on the other, settlers have decimated or destroyed entire sub-populations of game and fish by using inappropriate hunting and fishing techniques that were not adapted to the environment. Traditionally men hunted with bows and arrows and by setting traps. Pigeons, mountain turkey hens, armadillos, mice, hares and other animals were hunted. There were very strict rules on when, where and how to hunt. The elders had a very important role in hunting: through their communication with God, they ensured that game did not become extinct, and that on the contrary, it was available in abundance.*

*Fishing was also important traditionally and the men were responsible for it. In spring, there were sufficient fish available, and every family could fish for its needs: sardines, codfish, pikes, and other fish were all caught by using natural substances to stun them. After the catch, the river was cleaned, and for the next two to four years no natural substance for stunning and catching fish could be used in that river or pond, so that the fish stocks could regenerate.*

*Today the U'wa subsist on two kinds of food, in addition to fish, namely, cultivated agricultural products and forest produce. The latter are mostly gathered by the women, who particularly value this produce, as it is a substitute for meat. The forest produce includes fruits, kernels, seeds and palm leave stalks. The most important agricultural products are maize, cassava, bananas, coca, ocumo and cuesco. However, coffee, lentils (six varieties), passion fruit, sugar cane, sweet potatoes and fruits, such as lemons, oranges, papayas, mangoes, guavas and pineapples are also cultivated. Coffee and sugar cane are mostly used for barter at the local market. They are bartered against machetes, shoes or cheap industrial products. Money has a value at best for those U'wa, living on the border of their territory, but even amongst them its influence is minimal” (Haller et al., 2008:423-425).*

## 4.4. RESILIENCE AND THE IMPACT OF THE OIL BOOM

### 4.4.1. Resilience of the indigenous population

In this section, I will first focus on the resilience of the indigenous population of Colombia. I will look at how the indigenous population scores on the proxy indicators I created for the measurement of resilience that are described in chapter two. After this I will determine what impact the oil boom in Colombia has had on them and in what way resilience has determined this impact.

#### 4.4.1.1. Resilience factor 1. Institutional diversity

Proxy indicator a: The creation of new institutions and their diversity

In Colombia, a strong and diverse indigenous movement has developed over the last decades. According to Benavides Vanegas (2009:11) *“the emergence of indigenous mobilization in Colombia is explained as the result as a crisis at three levels: a crisis of representation, brought about by the lack of political parties with enough representation to convey all collectives [sic] interests; a crisis of participation that is the result of the*

*lack of citizen's participation in state's business; and a legitimization crisis, due to the fact of discrimination against some social groups".*

The first autonomous indigenous organization in Colombia emerged in the southern part of the country (Cauca department) in 1971 (Gedicks, 2003:86). This organization, called Consejo Regional Indígena del Cauca (CRIC) was established to end the marginalization of the indigenous population in the department. This organization fought for the repossession of the lands that were taken from the indigenous groups and for the acquisition of legal rights to resguardos for indigenous communities living in them (Fischer, 2009:111). Two years after its foundation, the organization had success and indigenous groups could occupy and repossess usurped lands. Indigenous communities started to create cooperatives and a large number of new local organizations started to emerge, such as the Organización Indígena de Antioquia (OIA) and the Organización Regional de Valle del Cauca (OREWA). These organizations had different approaches and focal points but were all aiming to improve the situation of indigenous groups in Colombia. In 1982, the first national indigenous organization was created, which had an umbrella function for the existing local organizations. This organization, called the Organización Nacional Indígena de Colombia (ONIC), has developed into the most important organization for the Colombian indigenous movement (Benavides Vanegas, 2009:31). ONIC aims to strengthen and support self-government for indigenous groups, facilitate the participation of indigenous people in political processes, strengthen indigenous organizations and their impact, and build common strategies and dialogue with other social movements, NGOs, the Colombian state and national agencies and international solidarity and cooperation (ONIC, 2010).

ONIC has already had a couple of important successes. For instance, in 1996 the peaceful protests organized by ONIC led the government to issue Decree 1397. *"This Decree lays down that all consultations with indigenous communities on any measures, projects or programs in their territory must aim at achieving consensus and not conclude with merely informing the concerned communities. Further, the Decree also provides for the revocation of the environmental license, in case of impingement on the social, cultural and economic integrity of the concerned communities"* (Haller et al., 2008:430) (also see box 4.5).

The national and international organization of indigenous groups and the cooperation between them has become pretty strong over the last years. According to Haller et al. (2008: 279) this has much to do with their improved access to means of communication. *"Co-operation has improved and can be traced to the improvement of means of communication. For example, in the Bari territory, the mission compound 'el Tutuku' now has a telephone and a three-language (Spanish, Yukpa, Bari) radio transmitter. Consequently, it is now possible to keep in touch with communities in remote areas. In addition the road system has also been developed, so that it is now possible to reach the Bari by car from the mission compound, especially since many Bari communities collectively own vehicles"*.

The Colombian case is unique in terms of the high levels of violence, murder and displacement that indigenous peoples have continuously experienced up till today. Indigenous people are disproportionately affected by persistent epochs of civil war. The indigenous organizations of Colombia have therefore been specifically advocating local, regional, national, and international alternatives for peaceful coexistence. The Colombian indigenous movement has consistently influenced and shaped informal and institutionalized peace processes. For instance, with guidance and support of ONIC, indigenous groups have jointly created the Mesa Nacional Indígena de Paz, or National Indigenous Forum for Peace (Bouvier, 2009: 226-227) (also see box 4.4).

Box 4.4. The National Indigenous Forum for Peace  
and the National Indigenous Council for Peace

*“The mesa [National Indigenous Forum for Peace] aims to respond comprehensively to economic, political, and armed violence, denouncing the ways that armed actors put at risk indigenous lives, territory, culture, and very existence. In general, the mesa’s objectives are to promote peace and a political solution to armed conflict based on indigenous principles and cultural beliefs. The mesa participants seek local and national negotiated solutions to the armed conflict through dialogue and agreement.*

*The mesa carries out its objectives through the National Indigenous Council for Peace. The council, organized through ONIC, promotes the unity of Colombia’s indigenous peoples and the defense of indigenous rights in the midst of armed struggle. It builds alliances with other human rights organizations, divulging through the media abuses of indigenous rights and seeking international solidarity and humanitarian assistance. The council also supports direct channels of communication with armed forces to defend the lives, autonomy, and stance of noninvolvement of indigenous peoples. It advocates and facilitates the formation of regional peace councils and committees, distributes information regarding human rights violations by armed actors, and maintains databases and analysis of the effects of armed conflict on these communities” (Bouvier, 2009:227-228)*

Thus, despite the fact that the indigenous population in Colombia is relatively small, it has managed to create a large and diverse network of indigenous organizations that operates at different societal levels and focuses on a diverse set of issues.

Proxy indicator b: Linked secondary institutions

The indigenous population works together with a multitude of national and international organizations.

*“Indigenous groups have developed several networks to support their struggle. These networks have the task of protecting indigenous peoples and indigenous organizations from attacks coming from the state. At the same time in the last years some other networks have been organized in order to face multinational companies working on indigenous lands and with the task of defending traditionally excluded subjects in the indigenous world, such as women and religious minorities” (Benavides Vanegas, 2009:10).*

The indigenous people of Colombia can rely on an extensive national network of NGOs and other civil society actors. A particularly strong national ally of the indigenous population is the human rights/peace movement. Peace activism in Colombia goes back only twenty years. Within this period, it has seen rapid growth. As the numbers of dead, kidnapped and displaced people grew, the peace movement started to organize frequent peace protests, public hearings, and dialogues between the guerillas, the government and indigenous groups (Bouvier, 2009:21,25,36).

Indigenous organizations have also joined hands with a multitude of international non-profit organizations such as the Rainforest Action Network, the International Work Group for Indigenous Affairs and Amazon Watch. Furthermore, multilateral development agencies like the Inter-American Development Bank, The World Bank, and the UN have created many programs that support indigenous groups in Colombia.

The indigenous organizations have strong ties with U.S. based organizations. Since the introduction of Plan Colombia<sup>12</sup> in 2000, the number of U.S.-based NGOs working on questions related to Colombia has increased strongly. These organizations focus on issues like human rights, social and economic development, security, rule of law and the establishment of peace. *“U.S. NGOs have managed to achieve some imperfect but significant results: first, the partial protection of some civil society leaders and civilian-led peacebuilding initiatives; second, assistance and guidance to Colombian civil society as it goes through the necessary steps of building a broader coalition to address the complex issues of peacebuilding; and finally, ensuring that peacebuilding has remained on the agenda of U.S. Congress members and other policymakers-*

<sup>12</sup> Plan Colombia is a plan that was developed by Colombian President Pastrana (1998-2002) to end Colombia’s enduring armed conflict, eliminate drug trafficking and promote social and economic development (Veillette, 2005:2).

*a situation strengthened to some extent by U.S. NGOs' recent ability to influence U.S. policy towards Colombia*" (Bouvier, 2009:384). An example of an U.S.- based NGO supporting indigenous groups is USAID. This organization has for instance paid for a project concerning sustainable management of forest by indigenous groups. In 2005, the Organización Indígena de Antioquia finalized the implementation of a sustainable forest management plan, safeguarding some 13,000 hectares of forest. This project benefited 800 families and created 100 jobs (USAID, 2005:9).

Thus, the indigenous people of Colombia are supported by an extensive network of national and international allies. This support gives them a stronger position in society, as well as a better ability to deal with disturbances caused by oil.

Proxy indicator c: Diversity of resources/means

A diverse set of resources and means will provide indigenous groups with more options and flexibility towards changes.

#### Political influence<sup>13</sup>

During the 1980s, the political elites in Colombia wanted to break open the traditionally closed two-party system and create a political system that was more open to diverse political, social and economic interest. The elites hoped that they could reenergize politics, which has lost meaning for most citizens. By diversifying politics, they were hoping to provide peaceful alternatives for the armed conflicts that were taking place in the country. Since the indigenous population was small, and thus did not pose a threat to existing power relations, indigenous groups were able to use this situation to become politically active (Van Cott, 2005:24). Three indigenous political parties have been created in Colombia that are linked to indigenous organizations in civil society. The indigenous organization Consejo Regional Indígena del Cauca CRIC created the political party ASI (1991), the Autoridades Indígenas de Colombia (AICO) created the AICO (1990) and the Organización Nacional Indígena de Colombia (ONIC) created ONIC (1990) (Van Cott, 2005:44).

From the early 1990s onwards, the indigenous political parties have become increasingly influential and successful. For instance in 1990, *"three Colombian indigenous leaders participated in a national constituent assembly. The constitution that resulted created a district guaranteeing Indians two seats in the Senate and allowed social movements and independents to compete in elections. Newly formed indigenous parties were surprisingly successful in the 1990 constituent assembly elections and the local, regional, and national elections that followed"* (Van Cott, 2005:130).

The indigenous political representatives have experienced severe opposition. *"Guerilla organizations, paramilitaries, and the military have attacked indigenous organizations and leaders for at least four decades. Guerillas operate in all Colombian departments where indigenous peoples are present and have assassinated numerous elected mayors and leaders of indigenous social movement organizations. Various armed actors have assassinated more than 500 indigenous leaders since the 1970s"*. However, perhaps surprisingly, the indigenous political movement in Colombia persists and even expands (Van Cott, 2005:152-153).

The case of indigenous politics in Colombia is interesting, since indigenous parties have developed in an unlikely setting. Despite the fact that the indigenous population is very small, the indigenous movement was able to take advantage of an opening that presented itself and start its influence in Colombian politics. Skillful negotiations, persistent lobbying, and the support of sympathetic elites, enabled the indigenous movement to achieve an extensive set of political reforms that *"created a permissive institutional environment for the political representation of small minorities"* (Van Cott, 2005:178).

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<sup>13</sup> Due to a lack of data sources about the political influence of the indigenous population I had to rely on only one source, which is Van Cott, 2005.

## Legal means

During the last decades, the implementation of certain laws in Colombia has created a better legal basis for the indigenous population.

The first big step forward was the 1991 Constitution. In the 1990s, president Gaviria, was pressured to establish the Constitutional Court, in order to protect citizen rights. This court defended the rights of indigenous groups, and created Article 246 of the 1991 Constitution on Special Indigenous Rights and Jurisdictions. In additional Articles the official status of indigenous traditions and the jurisdiction of their territories were recognized. The current institutional framework for the protection and promotion of indigenous rights is based primarily on the 1991 Constitution, “*which recognizes the multicultural and multi-ethnic make-up of the country. The principal gain for indigenous people in this Constitution was the recognition of their traditional reserves and respect for their cultures, languages and traditions, which were long-standing claims. In order to implement these provisions, land was granted to indigenous communities under Act No. 160 of 1994, through the establishment, extension, rehabilitation and restructuring of reserves*” (United Nations, 2004). In 1996 Decree 1396 was also created, which officially established the National Commission on Human Rights of Indigenous Peoples (Zuluaga & Jones, 2005: 56) (see box 4.5). Furthermore, Peru also ratified the ILO Convention 169<sup>14</sup>, which strengthened and extended the fundamental legal rights that indigenous people have, as well as their right to own land and to self-determination. (Haller et al., 2008:347).

However, although the indigenous groups are now protected on paper, successive governments have failed to implement those rights in practice (Zualaga & Jones, 2005:56). There is a lack of coherence between what laws say and the enforcement of these laws. For instance, the right of indigenous people to prior consultation by oil companies, which is in accordance with Convention 169, is generally not complied with (United Nations, 2004).

### Box 4.5. Decree 1396

In July of 1996, one of the biggest indigenous mobilizations in Colombia took place. The indigenous groups participating claimed the right of life and the basic protection of their human rights. The mass-protests and international pressure led the Colombian government to create Decree 1396: a new law for the protection of the indigenous peoples. Decree 1396 officially established the National Commission on Human Rights of Indigenous Peoples. This commission consists of indigenous representatives from the National Indigenous Peoples’ Organization of Colombia (ONIC), the Organization of Indigenous Peoples of Colombian Amazonia (OPIAC), the Tairona Indigenous Councils (CIT), national government officials, guests from other communities, representatives from the Attorney General’s Office, the Office of the People’s Advocate and the Prosecutor General’s Office. The commission is advised by the Office of the United Nations High Commissioner for Human Rights (Zuluaga & Jones, 2005: 56).

*‘The Commission attempts to determine strategies and potential solutions to the repression faced by Colombia’s indigenous groups while making sure to consider their cultural practices and values. It provides a space for constructive dialogue and generates a better understanding of the problems that face indigenous reservations’* (Zuluaga & Jones, 2005: 56).

Unfortunately, although the Decree has created a legal basis for the protection of indigenous rights, it is very ineffective and its fulfillment by the government and other actors is poor (Zuluaga & Jones, 2005:57).

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<sup>14</sup> ILO is the International Labor Organization, which a specialized UN agency that focuses on labor issues. The ILO-Convention 169 focuses specifically on a shift in the approach towards indigenous people. It emphasizes an approach that respects individual indigenous identities and their rights to participate in decision-making processes in policies and programs that affect them. The Convention also addresses indigenous rights to ancestral lands and their natural resources (Schulting, 2010).

Although the Colombian government has signed the Rio Convention on Biological diversity in 2000, the legal framework for environmental protection and its compliance mechanisms are weak<sup>15</sup>. The oil industry in Colombia has a strong legal basis to operate from. The legal base for oil activities is called the ‘Código de Petróleos’, or the ‘Oil Code’. Recently Decree 2310, which was established in 1974, was amended to make investing in new oil development more interesting for oil companies. Investment has been made more attractive by providing companies with a compensation for their risk of investing in oil development in an instable country. First of all, the sharing of oil income with the state was reduced to the absolute minimum, which means that the oil company can keep all production after paying royalties and taxes. Secondly, the national oil company Ecopetrol no longer has to become a partner in new projects, so profit does not have to be shared. Thirdly environmental licenses have been made much ‘more flexible’ to reduce costs further for the oil industry. Money can now be saved by decreasing environmental management, which is expensive and time-consuming. Article 4 of Decree 1180/03 states that for oil development ‘*environmental management will not be subject to prior evaluation by the environmental authority*’ (Mingorance, 2008:10).

According to Mingorance (2008:10-11), “*the consequences of the government’s new oil policies are extremely damaging to indigenous peoples, as the framework of legal protection is being modified, sacrificing or eroding fundamental rights, while hydrocarbon exploration and production is being increased to the maximum possible, having irreparable impacts*”.

However, indigenous groups in Colombia have been able to use the legal rights that they have to pursue their goals. Box 4.6 provides an example of this.

#### Box 4.6. The U’wa and legal means

*“The U’wa came to national prominence through the two lawsuits they filed through the Defensoria del Pueblo in 1993. One outcome of this is that they are now receiving support from various organizations, including for example from the National Indigenous Organization of Colombia, the ONIC. The other outcome is that the public is now critically following government action in the conflict with the U’wa. [...]*

*The U’wa had requested the INCORA [Colombian Institute of Agricultural Reform] for the legal title to a unified resguardo. The Department governments in Bogotá, Santander and Norte de Santander supported this request. The study undertaken by Harvard University also came out in support of this proposal. [...] Another important action was the filing of a complaint [about oil companies wanting to start seismic exploration in their territory] against the Colombian government with the IACHR (Inter-American Commission of Human Rights). This action was taken by the Traditional U’wa Authority, ONIC and the Amazon Coalition. The U’wa have gained national and international publicity through various campaigns. The ONIC in particular but also other organizations outside of Colombia, such as Project Underground, have strongly supported the cause of the U’wa. In Colombia, the success of the campaign is reflected in the growing consciousness of the population. [...] Internationally also, several organizations have shown solidarity with the U’wa. Thus, for example various US American NGOs organized demonstrations in front of the Oxy headquarters in Los Angeles in May 1998 in which the U’wa, e.g. Berito KuwarU’wa, also participated. The Sub-commission on the Prevention of Discrimination and Protection of Minorities of the UN, which is under the Commission for Human Rights, is pressing the Colombian government to revise the ruling of the Council of State and revoke the environmental license. The government should respect the refusal of the U’wa and exclude the indigenous territories from the area earmarked for oil exploitation” (Haller et al., 2008 441-442).*

The legal procedures are still continuing today, and their outcomes remain unknown. Nonetheless, the fact that they because of the actions now receive support from various organizations is a positive outcome on its own.

<sup>15</sup> The Convention on Biological Diversity is an international treaty that aims to sustain a rich diversity of life on earth. 192 states and the European community have signed this treaty (CBD, 2010).

Thus, although several important laws have been created in favor of indigenous people, these seem to have limited value in practice. Government oil policies prevail over indigenous rights and environmental protection, despite the laws that have been created about these issues. Nonetheless, indigenous groups have been able to successfully use law to support their cause.

#### Monetary income and human capital

A third group of means that is important for indigenous groups consists of their monetary income and human capital. Unfortunately, there are only a few data source available about the monetary income and human capital of indigenous people in Colombia. I can therefore in some cases only present the reader with data on national statistics.

Inequality in Colombia is very high, even the highest of the four case studies (Worldbank, 2007; NationMaster, 2010(2) ). Forty-nine percent of all Colombians live in poverty, and sixteen percent in extreme poverty. Despite declining national poverty rates, rural poverty is actually increasing. Currently in rural areas sixty-two percent of the people are poor. Almost all of the indigenous people live in rural areas. Furthermore, within the already disadvantaged rural population, indigenous people are generally found among the poorest segments (Rural Poverty Portal, 2010 (1) ). Thus, indigenous peoples are part of the poorest sectors of the Colombian society. The exact poverty numbers will remain unknown, but it has become clear that a large part of the indigenous population lives below the poverty line.

The World Health Organization (2010) indicates that in 2008 seventy-three percent of the rural population had access to improved water sources, and fifty-five percent to sanitation facilities. The access to these facilities has grown significantly during the last decade. The World Bank (2008:25) indicates that only forty-nine percent of the rural population has access to electricity. The number of indigenous people receiving education is quite low. I will focus more on this topic for the analysis of the second proxy indicator.

In terms of health care, indigenous people are in a disadvantaged position. Indigenous people have little access to health services. Especially in terms of reproductive healthcare, mother-and-child care, and child nutrition, indigenous people in Colombia score badly. Furthermore, in the armed conflicts many of the traditional indigenous doctors have been killed, and many non-indigenous doctors have been scared away by the violence. According to a Special rapporteur from the UN the mortality rate of certain indigenous groups is even more than twice as high as the national rate, and their infant mortality rate is even 3,2 times the national rate. *“Act No. 691 of 2001 guarantees indigenous people’s right to health services. To date, according to the government, more than half a million indigenous people are covered by the subsidized health scheme, and President Uribe has indicated that by the end of his term of office all indigenous people in the country will be covered. Seven health-service providers operate in indigenous areas, but this is not enough and they alone cannot guarantee the realization of indigenous peoples’ right to health”*. (UN, 2004).

The government of Colombia has created social policies for the support of indigenous people and their development. However, these policies are generally not very effective. *“The Constitution establishes a general subsidy scheme for the indigenous reserves; these resources are required by law to be directed primarily towards meeting basic needs in the areas of health, education, drinking water, agricultural development and housing. In the absence of proper regulation, however, these funds do not go directly to the communities, who complain that the municipalities unlawfully withhold payment or do not pay out the full allocation, and that the amounts are in any case inadequate and have shrunk considerably in recent years”* (UN, 2004).

Thus, poverty levels have remained very high, and indigenous people have limited access to public and private services.

#### Proxy indicator d: Diversity/ flexibility of management and policies

The indigenous people of Colombia are better able to respond to oil disturbances when their policies and management practices are diverse and flexible towards change. I will now discuss their usage of several approaches for dealing with oil development.

## Protesting and marches

An important strategy used by indigenous groups in Colombia is non-violent resistance and protests. It is impressive to see how many protests the small indigenous population has organized over the years. Many protest marches have been organized, with thousands of indigenous participants protesting oil development, guerilla violence and the loss of their ancestral lands (e.g. Metacafe, 2008; The Argentina Independent, 2010; Murillo, 2009). In boxes 4.5 and 4.6 important indigenous protest marches are mentioned, and in box 4.7 the focus is on a successful march.

### Box 4.7. La minga popular

From October 11<sup>th</sup> to November 24<sup>th</sup> 2008, an unprecedented mass-mobilization was held by Colombia's popular movement, which included the country's indigenous organizations. The uprising was organized to protest president Uribe's economic and security policy and the violations of indigenous human rights. Over 40,000 people took part in the mobilization, which was also called the '*minga popular*'. Representatives of many indigenous communities from different parts of the country took part in the minga and marched through the country. The marchers were confronted by armed security forces when they decided to follow a strategy of civil disobedience and blocked the Pan American Highway. This action resulted in three deaths and over 120 wounded. During the period of the minga, a dialogue was created between Uribe and his ministers and indigenous groups.

Some see the minga as the beginning of a new process of dialogue. Non-violent popular protest and mobilization in their eyes can transform the Colombian society and politics. The minga indeed received broad support in Colombia, and also received expressions of solidarity and support from all over the world. A success factor of the minga was the strategic use of communication technology by the indigenous communities. It was combined with traditional forms of communication like public consultations and in this was very effective in conveying the message about the struggle indigenous people in Colombia are experiencing (Murillo, 2009:137-138).



The minga popular  
(SOA Watch NYC, 2009).

### Physical display of power/violence

A means that has been used by indigenous groups in Colombia a lot in the past is the physical display of power or the use of violence (Kairos, 2010). However, currently, this strategy has only been used in a few cases. In some of these cases this led to the desired outcomes. For instance in the late 1980s, indigenous groups were trying to obtain more legal rights. A strategy of armed struggle, combined with legal proceedings eventually led to a process of incorporation of indigenous rights in the 1991 constitution (Benavides Vanegas, 2009:18). Another example of a different 'violent' strategy is provided in box 4.8. The use of these strategies has (thus far) led to positive results for the indigenous groups that used them.

Box 4.8. The U'wa and their threat with mass-suicide

For years, the oil company Oxy has been trying to start drilling for oil in a U'wa territory called Samore. As a response, the U'wa have deployed a perhaps unusual strategy. John Vidal visited the U'wa tribe and reports.

*“The companies have already spent \$16 million on seismic studies, which revealed that Samore holds as much oil as Caño Limon [other large oilfield in Colombia]. But for the U'wa, any incursion on to their territory would be devastating, and their response is categorical: if and when Shell and Oxy move in to their mountains, the tribal leaders say that many U'wa will throw themselves off a high cliff called The Cliff Of Death in an act of mass ritual suicide. For the U'wa, this would be a positive act—better to die with both dignity and culture intact, they say, than to see their world torn apart.*

*Mass ritual suicide is part of the U'wa culture. The tribe's oral history recounts how in the 16th century one large U'wa community, in retreat from the Spaniards, came to The Cliff Of Death. All U'wa territory is considered sacred, but there are some areas, the cliff included, where no one may go. U'wa history relates that, faced with being forced to move on to this forbidden land, the tribe put their children in clay pots and cast them off the cliff before leaping backwards after them. If the U'wa carry out their threat, they will go back to The Cliff Of Death.*

*For the government, the U'wa's decision is a 'philosophical dilemma' that is threatening to become an international incident, according to Rodrigo Villamizar, the disgraced former minister of mines and petrol who resigned in August following a corruption scandal. James Niehaus, vice-president of Oxy Worldwide Production in California, calls it 'tragic'. The U'wa say it would be the end of the world, and the people of Colombia are horrified. On a recent trip to London, Villamizar said, 'My son asks me, 'Daddy, are you going to make the Indians jump off the cliff?'. [...]*

*The U'wa say everything—from land, tree and rock to river, sky and place—is alive and therefore sacred. The U'wa protect the land not just in the strict environmental sense that they never waste, pollute or take more than the land can bear, but also in ritual chant and dance. Rather as the Australian Aboriginals have their song lines, so the U'wa daily sing the world into creation by reciting their myths and their place names. They keep the world alive by, literally, singing it. The birds, too, create places by chanting the names of the areas they fly over. Everything that the U'wa do or think is focused [...] to protect and continue life. [...] The sense of mystery is everywhere. On reaching puberty, young U'wa women put on head-dresses, or cocaras, made of giant leaves from which they can see only through a small slit in the front. They wear them until someone asks to marry them, which can take four or more years. Then there are the 12 menhirs, great standing stones like those at Stonehenge, which [...] were the pillars of the U'wa's spiritual world. U'wa myth says that when the last one falls, the world ends. Only two still stand. But what about oil? [...] The U'wa say they have always had a word for it—ruiria. 'For them, it is the blood of Mother Earth, the veins of the land,' says Edgar Mendez, an anthropologist who has worked with the U'wa for two years. 'The invasion of another world into their territory—above or below ground—is death. To extract it would tear their spiritual world apart.' [...] Pepe, a semi-pet coypu, is being grilled over wood by a lowland U'wa family that farms an old colonist ranch. Berichá Kubar'uwa, president of the traditional U'wa council, swings in a hammock with a child. In his pocket, he has a “clock” insect that whistles on the U'wa hour. 'We had lots of hours before the Spanish came,' he quips. Berichá is weary. 'The communities will die,' he sighs. “We can't give permission to develop oil. You can't sell Mother Moon. We don't even sell our timber or cattle, so why would we want to try to sell the blood of Mother Earth? For us, the earth is sacred: it is not for violation, exploitation or negotiation; it is to be cared for, to be conserved. The government will sit down with us to see how we can live with Oxy and their oil exploration in our territory, without our culture being destroyed. But for us, this is impossible. We believe that the sun and the moon only work with the earth because she has blood. If you take out the blood, then you damage the earth and cause imbalance.” (VHEMT, 2010).*

## Attracting media attention

In Colombia, indigenous groups have been quite successful at defending their rights and territories by pressuring the government or other parties with the help from (international) media. The fact that their information about their struggle is spread around the world is to a large extent due to the efforts of the involved (international) organizations that support them. Organizations such as Human Rights Watch, Amnesty International, Amazon Watch, and USAID have published many reports on websites and in paper, made documentaries, written press releases, and so on. To a lesser extent, indigenous groups and organizations themselves have also been able to attract media attention, both on a national and international scale level (e.g. El Tiempo, 2010; ONIC, 2010).

Thus, the previous paragraphs have shown us that the strategies indigenous people in Venezuela have used have been pretty successful and diverse. They have organized many protest activities, and their strategy of threat or violence has been successful in a few cases. Furthermore, with the help of their international allies they have been able to attract the attention of the media.

### 4.4.1.2. Resilience factor 2. Knowledge

If the process of knowledge acquisition takes place in the form of an ongoing, dynamic learning process, in which different types of knowledge are used, resilience will be increased. Therefore, for this resilience factor, I will look at the transfer of knowledge as well as the diversity of the types of knowledge that have been used.

#### Proxy indicator a: Transfer of knowledge

For this aspect of resilience I will investigate to what extent knowledge is spread within the indigenous population. A first focal point is the transfer of knowledge to indigenous people in the Colombian education system. Unfortunately, no longitudinal studies have been carried out about the formal education levels of indigenous people.

According to a study from the UN (2004), in the two Departments with the largest indigenous populations, in the first Department only fifty percent of indigenous children went to school, and in the second less than forty percent. It remains unknown whether school enrollment in primary education is increasing or not. Nonetheless, this number is low. However, since the 1970s, the indigenous movement has been demanding the development of bilingual education programs for their communities. Because many indigenous people in Colombia do not speak Spanish, bilingual classes would make it possible for them to follow an education. Over time several regional indigenous organizations have, sometimes in collaboration with official schools and universities, created specialized programs focusing on indigenous-specific topics. Universities have taken up special indigenous subjects in their educational programs as well (Lopez et al., 2000; UNESCO, 2010). However, most local initiatives are not very well organized yet. *“For bilingual education to become a reality for all indigenous school-age children in Colombia, a sustained effort will be required, along with extensive resources for, inter alia, teacher training, school construction, production of educational materials, evaluation of results and continuity of teaching methods, all of which are at present compromised by the constraints on the public purse and the various national priorities in resource allocation”* (UN, 2004).

Despite the difficulties with developing bilingual education, the presence of indigenous students in Colombian universities has been increasing. Twenty years ago, there were hardly any indigenous students that went to high school or university. However, *“ a significant step by the State and national society was made towards the recognition of indigenous rights, including their cultural identity and languages, which consequently lead to better education of their history and sociocultural characteristics. Significantly, public and private universities have set aside quotas and offered scholarships and special programs for indigenous students. The number of indigenous university students in the country is still unknown. There are approximately 2,500 in Bogota studying social sciences, engineering and health education. At the present time there are ethno-education degrees at seven national universities, and specialization and master’s degrees are beginning to appear, as well as PhD programs in multi-cultural education that include the topic*

of education for ethnic groups. Nevertheless, with the exception of the ethno-education programs, universities do not have specific pedagogical models that take into account the cultural uniqueness of indigenous students or their necessities, worldviews and their community's traditional systems of knowledge" (UNESCO, 2010).

Box 4.9. Nasa member on bilingual education

*"The education system of which we have been servants for so many years has weakened us, making us seriously vulnerable to various risks and provocations. [That is why] the Regional Indigenous Council has for the past 18 years, been formulating a proposal for an education that would be our own. Our model of education is an invitation to peace; it is a way of living together. The strength of our enthusiasm and conviction lies in the fact that our curriculum has been developed by the sages of five centuries of resistance, and who are now in the sacred mountains, in the stars, in the lakes, in the night fogs, in sunny mornings or in the afternoons with their setting suns, in the animals, and, above all, in the earth, which explains or interprets these events"*

- Jesús Enrique Piñacué, a member of the Nasa people

*(Lopez et al., 2000:9)*

Proxy indicator b: Diversity of types of knowledge

As we have seen, today many indigenous people in Colombia still do not have access to any formal education at all. This implies that only few indigenous people have access to Western types of knowledge. However, as has become clear, bilingual education can change this situation, but more means still are necessary to create an effective bilingual education system.

Nonetheless, indigenous people in Colombia have been able to gather knowledge and skills for the effective management of their indigenous organizations. They have proven to understand how political and legal processes and media work, and how they can use this knowledge to their advantage.

However, due to oil development, settlers and other outside influences, indigenous groups are losing their traditions. In many cases, they had to abandon their traditional ways of living in order to survive. Furthermore, many shamans and indigenous elders have been killed over the last decades, which means a large loss of traditional (medicinal) knowledge in the affected communities (UN, 2004). Recently, several initiatives have been developed to recover this knowledge and spread it amongst the different indigenous communities (see boxes 4.10 and 4.11).

#### Box 4.10. The Shamans and Apprentices Program

Together with the Amazon Conservation Team (ACT), different indigenous groups have jointly developed a program for sharing traditional knowledge.

*“The Shamans and Apprentices Program is an outgrowth of ACT’s work with the Unión de Médicos Indígenas Yageceros de la Amazonía Colombiana, known by its Spanish acronym, UMIYAC. This seven-tribe union of traditional healers developed from an ACT-organized and historic first-ever encuentro de taitas (‘gathering of the shamans’) for the Eastern Andean Piedmont in 1999. The gathering was organized in response to the recognition that only through a concerted effort between the tribes of the region could the various indigenous groups of the area hope to reverse the steady decline of their societies and habitat.*

*Over the course of its development, UMIYAC, with assistance from ACT, has sought to reassert the prominence and continuity of their spiritual and healing traditions by establishing formalized training between elder shamans and apprentices. In many cases, capable apprentices resided in communities with no remaining elder shamans. In such instances, experienced elder healers of UMIYAC, regardless of ethnicity, brought these students under their tutelage” (Amazon Conservation Team, 2010).*

#### 4.4.1.3. Resilience factor 3. Social and ecological memory

This last factor is closely related to the previous factor, knowledge. The knowledge and experience that are acquired over the years are a crucial part of the social system of indigenous people and should therefore be stored. This source of memory provides indigenous people with a framework to deal with current and future developments in an adaptive and creative way (Berkes et al., 2003:362, 366).

Proxy indicator a: The storage of information

Certain initiatives, such as the ones mentioned in boxes 4.10 and 4.11, focus on retrieving and spreading traditional knowledge in several indigenous communities. However, I have found no information indicating that a system has been designed (yet) to store this knowledge effectively. I have found no books, databases, websites or libraries that have been created by indigenous groups for the storage of this type of information. It is important that traditional knowledge will not get lost even more and that it is stored properly. Furthermore, Western knowledge valuable to indigenous groups should be stored and accessible to these groups as well.

I have however found that the (international) organizations supporting the indigenous population of Colombia have created means in which they have been storing some of the traditional, and quite a lot of the Western, knowledge that is important for the indigenous people. These means are for instance databases, books, articles on websites and documentaries. This knowledge is documented by people that have a different worldview than the indigenous groups, which might distort the information somewhat. Nonetheless, the knowledge database that the allies of the indigenous people provide is very important. It can provide them with a framework to deal with current and future developments in a more adaptive and creative way. It is hoped that the indigenous groups continue to integrate the Western knowledge that is stored by others into their own knowledge systems and that they start creating their own databases for the storage of valuable knowledge.

#### Box 4.11. Recovery and spread of traditional knowledge

*Looking to strengthen the role of traditional Arhuaco healers (Mamos) in Colombia and to support their dialogue with western science, CIET [The Community Information and Epidemiological Technologies organization] has partnered with the indigenous health organization Dusakawi EPSI and the Centro de Estudios Médicos Interculturales (CEMI), a non-governmental organization of Colombian medical practitioners advocating for intercultural health policies and practices.*

*The Arhuaco live in the Sierra Nevada de Santa Marta region of northern Colombia and are among the most traditional indigenous groups in the country. Dusakawi EPSI is one of the few indigenous-managed health services in Colombia.*

*All three partnering organizations believe in protecting and strengthening traditional medical systems, and in carefully articulating them with western medical services, as a sound strategy to improve health outcomes among indigenous populations without further destroying their culture and environment.*

*In March 2007, and as a result of their working agreement, the three partners implemented a seminar on intercultural health policies. Twenty-five Arhuaco leaders, mostly from indigenous health services, attended the seminar in Valledupar, Cesar Province.*

*Also in the context of this partnership, CEMI is carrying out a diagnostic study of the health, cultural, and environmental situation among the Arhuaco people. CIET gives technical support and some funding for this study, which will lay the foundation for training Arhuaco health promoters as community health agents, with particular emphasis on traditional health knowledge and its articulation with western scientific practices. The partnering organizations will also help revive and promote traditional Arhuaco ceremonies.*



Hernando Pacheco (on the left) an Arhuaco surgeon, with Mamo Munévar Niño, who is one of the oldest and most respected Arhuaco healers in Colombia. CIET supports their work to revive traditional knowledge and medicines (CIET, 2010).

#### 4.4.2. The impact of the oil boom on indigenous people

In this chapter I have analyzed the second case study of this research project, focusing on the Colombian oil boom and the resilience of the indigenous population. In this section I will investigate whether the impact that the disturbances caused by oil development have had on the indigenous population, has depended on the resilience of the indigenous population.

Following the hypotheses mentioned in chapter two, I expect that if the resilience level of the indigenous people is high, it will have caused the absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts. I also anticipate that if the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa. I will now conclude whether these expectations have come to pass.

When looking at the different measurement on the proxy indicators for resilience, I conclude that the resilience of the indigenous population in Colombia is medium to high. Despite the small size of the indigenous population, sustained indigenous organization has taken place. Many indigenous institutions have been created, which have strong links with one another. Furthermore, these institutions are supported by many other (international) organizations. Indigenous people are also represented in politics and have even created three political parties. The legal means of indigenous groups have been expanded, which however have limited effects in reality. They have little monetary means or human capital at their disposal. The strategies they have used to deal with oil disturbances have been quite diverse and successful. The indigenous groups have organized many protest marches which have led to some positive results, and they have been able to attract national and international media attention. Furthermore, the strategy of physical display of power or violence has been successful in a couple of cases.

When it comes to the second and third factor of resilience, the scores of the indigenous population of Colombia are lower. Formal school attendance is not very high, but indigenous enrollment in universities has increased. Furthermore, bilingual education initiatives are slowly increasing the accessibility of education. Still, relatively few indigenous people have access to Western knowledge. This in some way has not prevented the indigenous movement from acquiring the necessary skills and knowledge to organize itself and be part of important societal processes. Some traditional knowledge has been lost, but initiatives have been created to counteract this development. The indigenous population can count on their allies for the storage of part of their vital knowledge, but have not yet started their own storage system.

The indigenous people have been able to absorb or buffer some negative impacts related to oil development: they have created a large protective network of associated (international) organizations, they have created peace initiatives to stop the violence against them, they have used legal and other means to change the constitution in their favor, they have pushed the creation of laws such as Decree 1397, they have prosecuted an oil company, and they have even used 'suicide threats' to keep an oil company out. Clearly, they have not been able to prevent oil development from happening at all, but they have surely come up with diverse and inventive ways to prevent some new oil development from taking place, and buffer at least some of the effects of the oil development that did take place.

In the case that the resilience level of the indigenous population is medium to high, my corresponding expectation was that their systems would have undergone medium to small changes in their functional characteristics during the oil boom. I have just concluded that the indigenous population has been able to prevent and buffer part of the negative changes related to oil development, but the impact of the disturbances that have taken place cannot be called medium to small. Indigenous groups like the Yariguíes have disappeared completely, mass migration has taken place, pollution has been intense, indigenous lifestyles have changed, etcetera. Thus, my expectations have not been met. I have reason to believe this is caused by variables external to the research design. I will discuss this assumption more extensively in chapter seven.

Thus, for this second case study, my expectations have been partially confirmed. The analysis of the resilience of indigenous population indicated that their resilience is medium to high, and it has been able to prevent negative impact from oil partially. However, it was also expected that with medium to high resilience, indigenous systems would undergo only medium to low changes in their functional characteristics. The changes that have taken place have been larger than expected.

## CHAPTER 5. ECUADOR

### 5.1. INTRODUCTION

In this chapter, the focus will be on the oil boom in Ecuador. It will become clear that over the last forty years oil development in Ecuador has expanded rapidly, as well as its negative consequences for indigenous groups. However, in a relatively short timeframe these groups have managed to organize themselves well, and develop strategies to counteract these developments. The indigenous groups have created an extensive network of stakeholders which has been very successful, especially compared to the other countries. In the next section, the development of the oil boom will be discussed, as well as the changes it has caused. In the third section of the chapter, the different indigenous groups of Ecuador will be introduced, as well as the disturbances caused by oil development which they have experienced. Several specific cases of different indigenous groups will be discussed. In the final section of the chapter the resilience of the indigenous groups as well as the impact the oil boom has had on them will be laid out.

### 5.2. THE OIL BOOM

#### 5.2.1. The political and economic context prior to the oil boom

Ecuador's past strongly conditions its present. Understanding the current Ecuadorian society and the events that are taking place now, requires some insight into the turbulent centuries that have preceded them. This section will give a short overview of the political and economic context prior to the oil boom.

The development of the different Indian nations in Ecuador throughout history has strongly been linked to the natural environment they have been living in. Political integration within the country hardly happened due to the fragmentation of the environment into many separate ecological zones. It also led to the development of different languages, customs and beliefs, and to very site-specific adaptations of groups to their natural environment. The indigenous people were not isolated economically though, since a range of extensive formalized trade networks existed within the country (Steyn, 2003:23).

Foreign domination started in the 15<sup>th</sup> century with the expansion of the Inca Empire in Peru towards the north. During the years they ruled, the Inca introduced new crops, llamas, irrigation projects and a road system that linked the capital Quito with the rest of Ecuador and with Peru. The Inca's tried to get the cooperation of local Indian leaders by continuing the tradition of political regionalization that existed before the Inca's came. However, the Inca's were never able to achieve total subjugation of all of the Indian groups; Indian revolts were taking place continuously (Gerlach, 2003:17; Steyn, 2003:24).

The Spanish conquest started in 1534, after Francisco Pizarro succeeded to bring the Inca Empire under Spanish rule within a year. The Spaniards had an attitude of religious militancy and greed, which lacked respect for any cultural differences. They brought diseases, steel weapons and horses, which were all new to the natives (Gerlach, 2003:17). During Spanish rule, the natives were forced into the *encomienda* labor system, which was designed for Spanish landlords. In the *encomienda*, the Spanish crown granted a certain number of natives to Spaniards living in South America, for whom they were to take responsibility. The receiver of this grant had to teach the natives the Spanish language and educate them about Catholicism. In return, they could make the natives work for them and take their land, gold or other products, such as corn, wheat or chickens (Wikipedia, 2009). During the colonial rule, church and state became closely entwined. The Catholic Church held a monopoly on ideology, and had the resources to promote education, the arts, and cultural activities. However, the material wealth of the Church stood in stark contrast to the severe poverty and suffering of the natives.

After nearly 300 years, a first call for independence from Spain was made in Latin America and tensions rose. In the early 1800s, independence movements started to emerge. In 1820, the first Ecuadorian city

claimed independence, and in 1822, the rest of Ecuador also gained its independence after Antonio José de Sucre defeated the Spanish forces. Following the battle, Ecuador was included in Gran Colombia (modern day Ecuador, Colombia and Venezuela), only to become a republic in 1830 (Gerlach, 2003:24). After independence from Gran Colombia, the country was in a state of severe instability. Regional power was exercised by those who held the greatest estates. Several attempts were made to seize power and create a central state to replace regional authority and many civil wars took place. Nobody was able to create unity and the white elite had practically all economic and political power.

In the late 19<sup>th</sup> century, Ecuador's first economic boom developed. The world demand for cocoa grew and Ecuador's exports of it rose sharply. This led to large migrations from the Andes highlands to the agricultural areas at the coast. However, due to diseases and competition exports fell irreversibly in the 1920s. In the 1950s, bananas became the new lead export product. Within a few years, Ecuador even became the largest banana producer in the world, an expansion that continued until the mid-1960s (Wunder, 2001:167). The banana boom also led important changes in the country. Like the cocoa era, it caused large migration streams within the country (Gerlach, 2003:27, 30). Banana growing has also caused immense deforestation in Ecuador, up to an estimated 180,000 to 240,000ha a year in the 1970s (Wunder, 2001:168). Today, oil has surpassed bananas as Ecuador's lead export product, but it in 2007 bananas still counted for 9,3% of the total export in 2007 (UNCTAD, 2010).

Urbanization and industrialization increased in the beginning of the 20<sup>th</sup> century. The 1930s and 1940s were characterized by more political instability and the emergence of populist politicians, like President José María Velasco Ibarra, who was a president five times between 1934 and 1972, but was only able to serve one of his presidential terms without being removed from office by the army. Velasco Ibarra launched ambitious public programs, which included the building of infrastructure, schools, and power plants. Bureaucracy grew immensely, as well as spending on the military. However, because of the limited financial means he had, he

could not keep up with the growing demands for expenditures. In the face of congressional and popular opposition he assumed dictatorial powers (Gerlach, 2003:31; Wikipedia, 2010a).

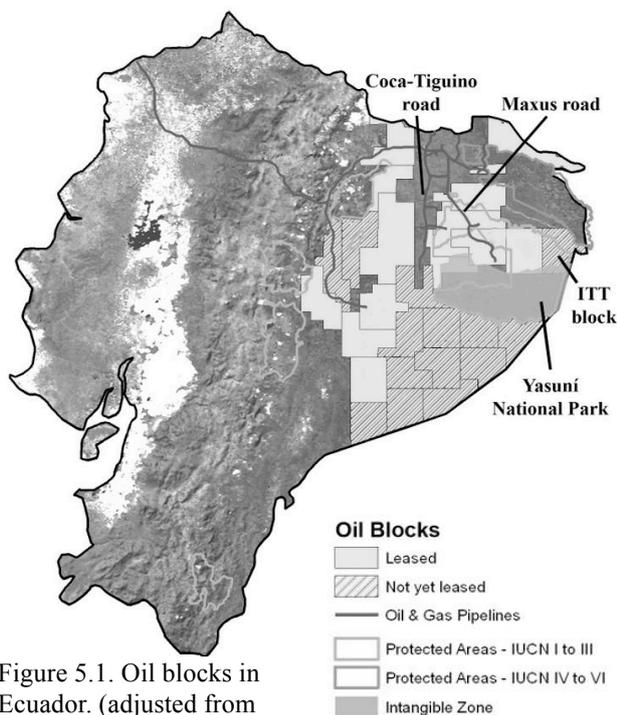


Figure 5.1. Oil blocks in Ecuador. (adjusted from Western Amazon, 2008)

### 5.2.2. The development of the oil boom

Although oil companies had already been searching for oil for decades, the era of oil in Ecuador started in 1967, when Texaco-Gulf discovered oil under the northern rainforests of Lago Agrio. The discovery of these commercial quantities of oil in the Amazon was heralded as the salvation of Ecuador's economy. It was hoped and expected by many that oil would pull the country out of its chronic poverty and 'underdevelopment' (Kimerling, 2006:413-414; Haller et al., 2008:313). By 1972, over 500 kilometers of oil pipeline had already been constructed, which connected the Lago Agrio drill sites in the northeast across the Andes to the Pacific port of Esmeraldas in the northwest of Ecuador. In that same year, Ecuador became the second-largest oil producer of South America. Twenty-eight other

oil corporations soon joined the race to get the oil out of the ground. The Ecuadorian Amazon region, also called the '*Oriente*', was soon divided into a grid of more than twenty drilling blocks (see Figure 5.1). Since then, the oil companies have created over 300 oil wells, numerous roads, pipelines and pumping stations, which comprise over 10,000 square kilometers (Gedicks, 2001: 67-68). Most oil refineries and storage facilities have been built in the western part of Ecuador near the shore.

### 5.2.2.1. Political processes and changes

The first years of the oil boom were marked by more political instability. Presidents came and went. In 1972 a military junta overthrew the government of President Velasco Ibarra. The new presidency lasted until 1976, when the president was removed by another military government. Democracy came in 1979, when in April of that year democratic elections were held. With it came some more economic and social stability. When Rodrigo Borja Cevallos became president in 1988, his government had a strong focus on improving the protection of human rights. He argued that stronger control by the state was essential to prevent private sector excess and to ensure a better distribution of wealth. He also carried out some reforms, notably increasing Ecuador's foreign trade. Unfortunately, Borja Cevallos was unable to fulfill the pledge of his party to improve social conditions (Gerlach, 2003: 44-45).

Social unrests started to increase when social problems were worsening. Government failures, high unemployment numbers and poor social services fed the national discontent. Well-organized protests and strikes were increasingly taking place. Around the same time the indigenous movement started to rise. Indigenous people started protesting the seizure and pollution of their lands by oil companies and the aggressive colonization and exploitation policies of the government (Kimerling, 1991:39). The social unrest created by their movement, as well as by both the leftist and elite movements, has led to a deterioration of the executive office. By 2000, the hopeful expectations that many had held before were shattered. Few believed that the economic and social changes generated during the oil boom would transform political culture. The number of social, economic and political groupings increased rapidly, and intense rivalries between them as well as conflicts between presidents and congress continued fragmenting and weakening the political process (Gerlach, 2003:46-47). In 2005, after mass protests, President Lucio Gutiérrez was removed from office. Whether the current president, Rafael Correa, can make the strongly needed structural social and economic adjustments still remains to be seen. Correa proposed strategies for reducing the burden of Ecuador's foreign debt service through compulsory debt restructuring, indicating that his priority would be spending on social programs rather than servicing Ecuador's debt. He changed the petroleum policy by increasing the percentage of petroleum revenues spent on social programs for the poor. He also accused foreign petroleum companies operating in Ecuador of failing to meet existing environmental and investment regulations. Currently the government is taking a number of new measures to adjust to falling petroleum revenues. The full scope and effectiveness of those measures are still unknown (U.S. Department of State, 2010; Wikipedia, 2010c).

### 5.2.2.2. Economic processes and changes

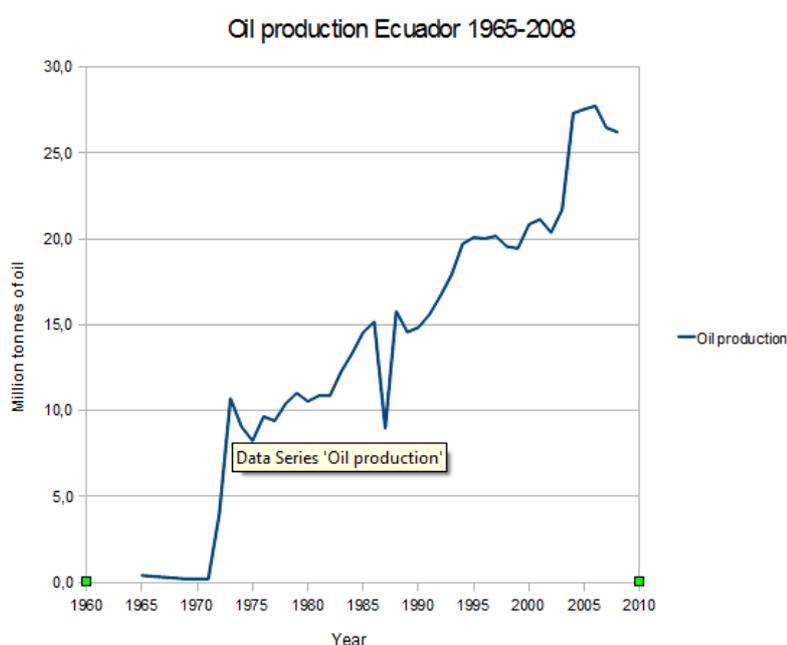


Figure 5.2. Oil production in Ecuador between 1965-2008. Based on BP, 2009.

As was the case earlier with the cacao and banana exports, the Ecuadorian state has continued its dangerously high dependency on a single export product with the rapid development of the oil industry. Ecuador's economy rapidly became very dependent on its petroleum resources, which on average have accounted for about half of the country's export earnings and one-fourth of public sector revenues in recent years.

With the large oil revenues flowing in, taxes were kept relatively low for most citizens, and during the 1970s and early 1980s, the relative burden of taxes fell. The main instruments for income distribution, income and property levies, dropped when the number of citizens paying them

declined. Ecuadorian citizens became used to prosperity and development. Large subsidies were provided for domestic oil products and their national consumption rose dramatically, along with the number of cars that congested the streets. Most Ecuadorians cooked with natural gas tanks that were subsidized by the state. In 2000, they were sold for one dollar, while the actual cost to produce them was around five dollars. Oil dependency created public attitudes towards taxes and spending, which proved hard to break when state petroleum income declined in later years (Gerlach, 2003:35).

Because of Ecuador's dependency on oil, fluctuations in world oil prices have a substantial domestic impact on the country. From the mid 1980s on, oil prices started to drop, and economic expansion slowed down. The rapid plummeting of oil prices in 1997-98 and the rupture of the country's main oil pipeline led to a severe economic and financial crisis in 1999. In this year, the crisis resulted in a 7,3 percent contraction of the GDP, an inflation of 52,2 percent, and a 65 percent devaluation of the Sucre, the national currency at the time (Gerlach, 2003:35; Wikipedia, 2010b).

In an attempt to address the ongoing economic crisis, on January 9, 2000, President Jamil Mahuad announced his intention to adopt the U.S. dollar as the official currency of Ecuador. Subsequent protests related to the economic and financial crises led to a military coup and the removal of Mahuad from office. Gustavo Noboa became the new president, who decided to follow Muahud's plans to adopt the dollar.

In 2007, 417,000 barrels of oil were exported per day, which makes Ecuador the third largest oil exporter of South America (Central Intelligence Agency, 2010). Through Petroecuador, the state's oil corporation, Ecuador became the majority financial partner in the Texaco oil consortium. However, the biggest share of the economic benefits from oil has been going to a small elite and to financing of the military. The number of people in monetary poverty actually rose during the oil boom, from under fifty percent in 1975 to sixty-five percent in 1992 (Gedicks, 2001:68). In recent years, poverty numbers have declined, measuring a little over thirty-eight percent in 2006 (NationMaster, 2010; Central Intelligence Agency, 2010). Since the start of the oil boom in the 1970s, Ecuador's per capita GDP has grown with an average of only 0,75 percent per year, which is half the rate of countries with similar levels of income (Kraft, 2010). Furthermore, the national debt has risen enormously, from 200 million dollars in 1970, to over 27 billion dollars in 2008 (Central Intelligence Agency, 2010). This makes moving out of poverty extremely difficult for Ecuador. Correa, the current president of Ecuador, has called for a renegotiation of foreign debts. In his inaugural address Correa stated his belief that part of Ecuador's external debt is illegitimate, since it was contracted by military regimes. He has threatened to default on the debt payments. However, the international creditors, viewing the country's oil reserves as assets to be liquidated, refuse to forgive Ecuador's debt. Especially the IMF is pressing Ecuador to open the Amazon region further for new oil development, so that the country may continue making interest payments and receiving loans. Government officials continue to insist that oil exploration will bring 'development' to people of the forest (Handler, 2005).

### 5.2.2.3. Social processes and changes

Oil production brought about several social changes in Ecuador. First of all, an important demographic movement took place when Ecuador's Oriente region was opened up with oil roads. The Ecuadorian government viewed the largely uninhabited Oriente as a solution to the national demographic and land distribution pressures. The discovery of oil in 1967 led to the construction of pipelines and adjacent roads, and the establishment of the oil workers town of Lago Agrio in the region (Flávio Barbieri et al., 2008:298). The creation of these new roads for oil development was seen as a perfect opportunity by the government to start a migration process to the Oriente. Some agricultural settler families from all over the country came to occupy the area immediately after oil drilling started, and very soon after significant numbers of settlers followed. They mostly came because they were hoping to find a better life, attracted by government policies which promised them land ownership and easy credit. However, when they arrived, they found an explosively growing population, ecological deterioration, periodic droughts and a group of wealthy people controlling most of the productive land, leaving little or no means for the newly arrived people to feed their families.

Over the years, over 300,000 settlers came to the Oriente (Gedicks, 2001:70). Unfortunately, the public infrastructure of the newly inhabited areas has been designed principally to support the oil industry. The colonists could only settle along the oil transportation network, regardless of the suitability of the soils. The

poor peasants that migrated to the Oriente in search of a better life now have to deal with rainforest soils, non-suitable for sustainable cash crop farming or cattle ranching. Some of the colonists have managed to successfully build up small businesses in the oil towns, but most of them live in miserable conditions, without access to clean water, a stable diet, sanitation or public services. They live in the shadows of the oil production facilities, where widespread oil contamination worsens their living conditions even further (Kimerling, 1991:40).

Another important aspect to mention is equality. Like many other Andes countries, Ecuador is still struggling with deep societal divisions, which can be traced back to the Spanish conquest. Racism and inequality is deeply rooted in Ecuador. Opening up the Oriente for oil has certainly not improved, and has possibly worsened, this situation. Indigenous people that previously lived in isolation now have to be in contact with a culture and society that is very different from theirs. Especially the indigenous people that wear their traditional clothing are usually looked down upon by others. Poverty and lack of access to health care and education continues to affect indigenous people disproportionately (Cambium, 2006). Later in this chapter this will be discussed in more detail.

However, despite the inequalities that exist, indigenous groups have started to learn to deal with the challenges their new situation poses upon them. Since the mid-1980s indigenous people have managed to give themselves a voice and become important political actors. They have created capacity to mobilize themselves and have been successful in changing policies. There is now widespread acknowledgement of the contribution of Ecuador's indigenous movement to the new social political agendas. They now effectively control twenty-seven municipalities and provincial governments and lately had enough political leverage to elect key members of the national congress, to appoint an indigenous woman as vice-president of the congress and to select the first indigenous ministers for key cabinet positions (Hall et al., 2006:68).

### **5.2.3. The Ecuadorian oil boom and the resource curse**

In the previous sections of this chapter it has become clear that oil drilling has caused, and contributed to, several political, economic, and social changes in Ecuador. Looking at these changes, should it be concluded that the country has benefited from its natural wealth in the form of oil, or did it not?

In Ecuador, oil development is closely linked to other aspects of society. The country's economy greatly depends on oil, and it is interwoven into politics and social policies. According to Ismail (2010) Dutch Disease has developed in Ecuador. According to him, the oil boom has resulted in reduced output in the manufacturing sector, and the relative price for labor to capital has gone up, injuring the manufacturing sector even more. Thus, the country's economy shows typical characteristics of Dutch disease. The economy has an unhealthy dependence on oil, since forty percent of all export revenue is derived from it. If oil revenues drop, this means the country will most likely experience severe economic problems and it will be very difficult to substitute this income since other economic sectors have weakened. Economic policies continue to be unsustainable and the national debt has risen to a large extent.

Furthermore, the government has remained very unstable, with numerous presidents removed from office, policy failures and mass unrests. Oil development is not the sole cause of this unhealthy situation, but as we have seen, it has clearly had its negative effects. Even though a small minority certainly has profited largely from the oil boom in Ecuador, the societal groups that needed improvement the most have generally not benefited from oil development. Although poverty levels have declined somewhat during the last couple of years, this is not a steady pattern. Furthermore, the opening the Oriente region for oil development has caused significant negative social and environmental effects. The hope for better lives for the new settlers in the Oriente generally did not materialize and these people experienced many unsolicited negative effects. Thus, when summing up all the foregoing, I can only conclude that for Ecuador oil has thus far been a curse, and not a blessing.

A societal group I have not discussed yet that has experienced the influences of the oil industry to a large degree consists of the indigenous people. In the next section the relation between oil development and the indigenous people of Ecuador will be discussed.

### 5.3. INDIGENOUS PEOPLE IN ECUADOR

In this section the indigenous groups of Ecuador will be introduced. The focus will be on the relationship between the indigenous groups of Ecuador and oil development and on the disturbances that oil has created for these groups.

#### 5.3.1. Demographics of indigenous people

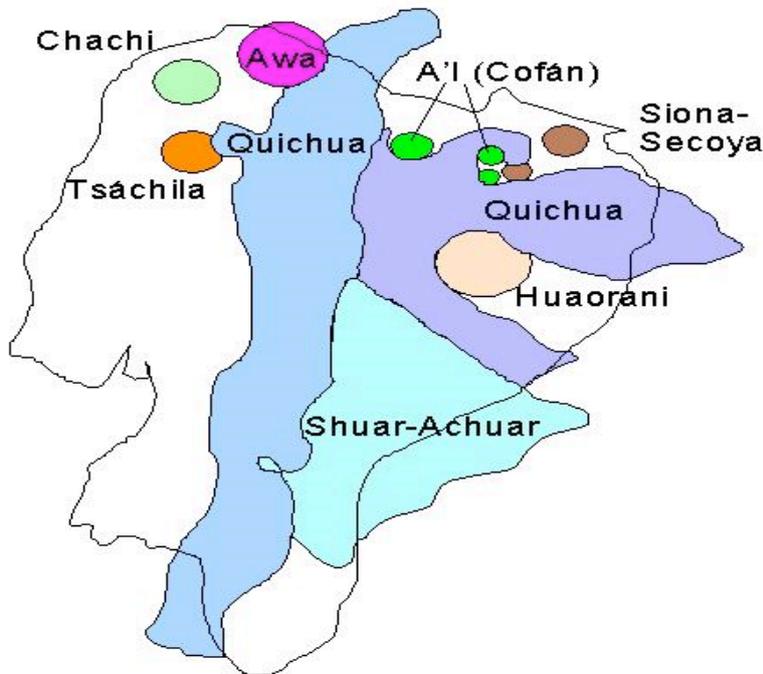


Figure 5.3: Indigenous territories in Ecuador (EU Joint Research Centre, 2009).

having their own languages and cultures. Two examples of Ecuadorian indigenous groups are given in box 5.1.

The population of Ecuador consists for about twenty-five percent of indigenous people, and sixty-five percent is of mixed indigenous and European heritage, the so-called *mestizos*. The remaining ten percent consists of black people, Spanish people and people from other origins. Especially the eastern part of Ecuador, the Oriente, has a very rich heritage of indigenous cultures. Estimates of the Oriente's indigenous population range from 90,000 to 250,000. The indigenous population consists of many different groups, among which the Awa, Chachi, Tsáchila, Cofán, Siona, Secoya, Huaorani, Quichua, Shuar and Achuar (see figure 5.3). The Quichua and the Shuar together account for the great majority of indigenous people in the Oriente (Kimerling, 1991:34). The groups living in the Oriente region primarily consist of subsistence societies, each

### Box 5.1. The Shuar and the Achuar

*“The Shuar and Achuar are two of a total of four Jivaro groups that comprise a population of approx. 70,000. The term Jivaro is taken from Spanish. For a long time it had negative connotations and it continues to be rejected by the indigenous organizations. Yet it is the only term that covers all these groups, which are very similar in terms of language, economy, political structure and religion. The name is associated with extremely violent intra and inter group conflicts, coupled with a hostile reputation that prevented foreign settlers from entering the region for a long time.*

*The Shuar were known as headhunters and used to headhunt among the Achuar. They used their trophies to make tsantsas (shrunken heads). The Achuar were not headhunters and limited themselves to retaliatory and preventive attacks against the Shuar. [...] The Achuar and the Shuar are organized in small social units consisting of polygynous families with 10 to 30 members. The next social unit is formed by a group of such houses, although these often lie a kilometer apart. This group forms an endogamous and territorial unit, whose members act in solidarity during times of war. [...] In each endogamous territory there is one important warrior or shaman- called the ‘Big Man’ in ethnological literature- who had the ability to mobilize a large network of allies during conflicts. The conflicts, especially with the Shuar, have ceased following the activities of missionaries in the last 25 to 30 years. However, the solidarity within an endogamous region and the associated ideology of social unity has persisted despite the influence of the missionaries in the larger settlements. [...] Pressure from the missionaries and the military led to a cutdown on headhunting in the 1960s. Those indigenous who resided in the proximity of military garrisons were assured of greater personal safety since murderers were arrested and put in jail. The number of deaths however, also decreased because the missionaries and the army became trading partners and sold coveted goods to the Jivaros. The goods were only delivered if there was peace. [...] In addition, the army facilitated the oil companies’ peaceful access to future oil exploration areas as well as the entry of settlers from other parts of the country.*

*In the last 20 years, the Shuar and Achuar have formed their own organizations that aim to preserve their cultural identity and language of both ethnic groups and also attempted to put an end to internecine warfare and headhunting. [...] The entry of missionaries, military, settlers and of market forces has caused a significant socio-cultural shift in the last 30 years. However, there are differences between the Shuar and the Achuar in this respect. As opposed to the Shuar, the latter have largely been able to maintain their traditional way of life” (Haller et al., 2008:296-298).*



Shuar people performing a traditional ceremony  
(Chabot-Lechenet, 2007).

### **5.3.2. History of the indigenous people**

For thousands of years, the indigenous peoples of Ecuador lived in harmony with their surroundings. Despite linguistic diversity, the indigenous people of the Oriente have developed cultures that are similar in many ways. All of these communities engaged in subsistence activities, which consisted of hunting, fishing and shifting slash-and-burn agriculture. After harvesting crops for a few years, the cleared patches of forest were abandoned, which gave the soil the opportunity to regenerate. The indigenous groups differed from one another in other areas, like clothing, housing, transportation, their political and social organization, religion, recreational activities and manufactured goods and technology (Steyn, 2003:269),

During the last centuries many indigenous territories have become magnets for different groups of people like missionaries and settlers. With the arrival of the oil companies, the conquest of the Amazon region was stimulated even further. Especially in the late 1960s, traditional life began changing a lot because of this. A great number of outsiders entered the Oriente, among which missionaries, colonists, lumbermen, and oil workers. These people introduced many new products and practices to the area and the people. Examples of these are cattle, certain fruits and modern medical treatment (Gerlach, 2003:11). Some indigenous groups have now abandoned their subsistence activities. The main reason for this is that their environment has been degraded too much by the activities of oil companies and others.

Pressure to adopt the dominant 'civilized' culture has increased the last decennia, and the government has actively pursued a policy of assimilation and 'civilization' of the indigenous groups. Nowadays, some young people are less interested in their roots. They no longer learn the methods of their ancestors used to manage their surroundings (Gedicks, 2001:70; Kimerling, 1991:37). However, many the indigenous cultures still remain strong. Although some easily detectable aspects have changed in some cases, like the replacement of traditional clothing by Western clothing, and the usage of Spanish as a second language, many indigenous groups still hold on to many of their traditions. Their dependence on the forest for their livelihoods remains high, and hunting, fishing and shifting cultivation are still the most important daily activities for them. Studies have identified over 700 plant species that indigenous communities still use today for nutritional, medicinal, domestic, and religious purposes. Although some of the indigenous people have become Christians, the belief in reciprocity and balance between humans and their environment is still strong. These values are deeply embedded in traditions and spiritual life (Kimerling, 1991:37).

As we shall see in the next sections, oil development has caused many disturbances for the indigenous people in Ecuador. As a response to this, an indigenous movement has risen, of which its successes are well-known all over South America.

### **5.3.3. Indigenous people and the disturbances caused by oil**

In Ecuador oil development takes place on a rather large-scale. In this section, I will describe the disturbances oil development has caused for indigenous groups. Most of the disturbances that I will describe have been experienced by the indigenous groups living in the Oriente, or the Amazon region of Ecuador.

#### **Social disturbances**

Oil development in Ecuador has influenced the lives of many indigenous groups. In several indigenous communities, a large part of the traditional way of life has been lost. These communities are no longer able to maintain a subsistence lifestyle of living off the land. This is mainly due to pollution and the destruction of natural areas. In these cases, many of the community members have left their lands to move to the city. Here, they usually end up being unemployed, living in the slums or on the street. Many turn to crime and prostitution to survive (Haller et al., 2008:325,327).

The Ecuadorian government has generally treated the entire Oriente as unoccupied land, ignoring the fact that indigenous people have lived in this area for centuries in their own demarcated territories (Kimerling, 1991:40). As a result waves of settlers have invaded and disrupted several indigenous territories. Logically, land conflicts between settlers and indigenous people have been occurring on a regular basis. The prolonged contact with the newcomers has led to a value shift and a larger degree of integration of indigenous people

into 'modern' society. Along with this, some indigenous groups have switched from subsistence agriculture and hunting to production for the market (Handler et al., 2008:327).

Living near the oil fields has caused other disturbances as well. According to Handler et al., (2008:325-326), the health status of indigenous groups living near oil development has decreased. *"The main health issues arising from oil production in Ecuador relate to the contamination of water and air with carcinogenic substances (benzene, toluene, etc.). According to the records of a regional hospital, there has been an increased incidence of skin diseases since oil production began. A study by the US-based Center for Economic and Social Rights (1994) published water testing data that revealed that the water used by the indigenous and settlers contained 10 to 100 times higher levels of carcinogenic substances than was the norm in the United States. According to a recent study, miscarriages and various cancers such as leukemia, lung cancer, skin cancer, and cancer of the bladder are widely prevalent among populations that live in the proximity of oil fields. Additional health problems arise through the influx of settlers and oil company workers in the indigenous territories, since they introduce diseases that the local population is not immune against. Even a generally harmless illness like the flu can prove fatal for children and even adults among the indigenous [...] Sexually transmitted diseases are also being spread among the indigenous population. Brothels come up near oil company sites and are visited by the workers. [...] Some AIDS cases have already surfaced"*.

### Environmental disturbances

Oil production has caused large-scale environmental disturbances in the Amazon region of Ecuador. The Amazon is the world's largest rainforest, and the Ecuadorian part of it, the Oriente, consists of 130,000 square kilometers of tropical rainforest. The Oriente is considered a biodiversity hotspot (Biodiversity Science, 2009), where one of the most diverse reservoirs of animal and plant species can be found, including several endangered species<sup>16</sup>(Kimerling, 1991:33). Within one square kilometer of Ecuadorian rainforest, over 400 species of trees can be found. According to tropical ecologist Norman Myers, the area 'is surely the richest biotic zone on earth' and 'deserves to rank as a kind of global epicenter of biodiversity' (Gedicks, 2001:67). The rainforests of the Oriente lie at the headwaters of the Amazon River system. The forests help to control flooding and erosion and regulate the region's rainfall and climate (Kimerling, 1991:33).

In 1967 the Oriente became home to the oil industry. For the process of oil extraction, oil companies have employed practices and technologies that do not conform to the environmental standards that are applied in Western countries. In the United States, the production, use, storage, and disposal of oil is governed by a variety of laws. In order to comply with federal laws, oil producers in the U.S. often re-inject production wastes into nearby wells. If any oil is accidentally spilled into the environment, the producers face substantial fines. In Ecuador, however, the same companies have simply been dumping their wastes in unstable holes dug in the ground, or in rivers and creeks (Kimerling, 1991:xii). The unsustainable extraction methods that are applied have led to severe environmental contamination of parts of the region. The oil and oil residue that ends up in the environment is extremely toxic. A liter of it kills fish in a million liters of water, and it harms aquatic life at concentrations as low as one part per hundred billion (Kimerling, 1991: xii).

The process of oil development can be divided into three stages, which are the exploration, production and transportation of oil (CESR, 1994:5-6). For the purpose of oil exploration, the clearing of trails and exploratory seismic detonations have caused land erosion and the dispersion of wildlife in several parts of the Oriente. Exploratory wells that have been created produce an average of 4000 square meters of drilling wastes each. To discharge the waste, open waste pits have been dug from which toxins are leaking out into soil and groundwater as the pits degrade or overflow with rainwater (Hurtig & Sebastián, 2002: 1021). The production of oil has been causing the largest pollution, however. In addition to large quantities of crude oil and petroleum in emulsion, production pits contain a witch's brew of toxic chemicals: hot formation water containing sulfates, bicarbonates, hydrogen sulfide, heavy metals such as arsenic, cadmium, cyanide, lead, and mercury, and lethal concentrations of chloride salt. They contain poisonous drilling mud, and clay spoils, industrial solvents, strong acids, diesel and aviation fuels, biocides, fungicides, flocculants, corrosion inhibitors, foam retardants, and descalers (Kimerling, 1991: xii). After the oil has been extracted from the

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<sup>16</sup> Among these are the black caiman, harpy eagle, jaguar, howler monkey, and tapir (Kimerling, 1991:33).

wells, separation stations, which separate oil from the waste, discharge untreated toxic wastes into waste pits. Over sixteen million liters of waste are pumped into these pits each day. Each pit has an overflow pipe to a nearby body of water. The toxic soups also dissolve into the groundwater and flood into lakes and streams when the waste pits collapse. The only 'treatment' has occurred in cases in which oil companies burned the pits to reduce their petroleum content (Kimerling, 1991: xii). Furthermore, for transportation purposes large amounts of heavy crude oil have been taken out of the pits and poured on local roads (CESR, 1994:6).

As has been mentioned, opening up the Oriente with roads for oil development, also opened up the area for all other kinds of activities. Once made accessible, next to oil extraction, colonization and agricultural expansion, timber extraction, mono-cultivation plantations, and weak land titling programs all became important causes of rapid forest cover change in Ecuador (Mena et al., 2006:812). Once the area had been opened up, the process became irreversible and hard to slow down. The deforestation rate is estimated at over 3000 square kilometers a year, which is one of the highest in Latin America (Gedicks, 2001:70). Many colonists started or enrolled themselves in existing mono-crop agricultural projects. Experience has shown that mono-crop agriculture is not sustainable in tropical rain forest environment. The soil is not suitable for agriculture and is often abandoned after a couple of years. Research indicates that these now heavily eroded soils most likely cannot regenerate a rainforest. Even small, mildly disturbed forest areas could require centuries to regain only part of their former richness. Even undisturbed fragments of pristine forest can be degraded because of isolation (Kimerling, 1991:34). The loss of rainforests has also degraded many important ecosystem services, such as carbon storage in forests and soils, the regulation of water balance and river flow, the modulation of atmospheric circulation and regional climate, the conservation of biodiversity, and the mitigation of infectious diseases (Foley et al, 2007:30; Fundación Natura, 1996:116-117).

Large knowledge gaps exist in our understanding of the ecology of the Ecuadorian Amazon. This means that I and other researchers are unable to identify the full range of losses that have been caused by oil development in the Oriente, or to accurately predict damages that are yet to come. It seems like only the most obvious and acute impacts on the forests and the indigenous people living there can be recognized at this time.

#### Economic disturbances

Unfortunately, I have only encountered a very limited amount of data concerning the economic disturbances that oil has caused for indigenous people in Ecuador. The following description is based on only a single data source.

Due to earlier described environmental disturbances such as the pollution of water and soil and the dispersion of wildlife, several indigenous groups had to change their ways to obtain food. Traditionally, indigenous groups in Ecuador either lived a fully nomadic lifestyle of hunting and gathering, or combined this with (temporary) agriculture. For their calorie intake, the Siona-Secoya people for instance depended for seventy-two percent on shifting cultivation, eighteen percent on hunting, and the remaining ten percent on fishing and gathering of other forest products. However, many indigenous groups were forced to change their modes of production. Now, new agricultural techniques are applied (such as livestock farming), new crops are planted and new technologies are used (such as machetes, guns and radios). Cash crops such as coffee, maize, and cocoa are increasingly cultivated in areas where transport to the cities is possible. Because of this change, many of the new indigenous farmers neglect the cultivation of crops for their own consumption, such as manioc and sweet potatoes. As a result, they need to buy canned goods and noodles in the cities. As a result of these changes, overhunting and unsustainable agriculture are common. Furthermore, also due to government encouragement, a monetary-based market economy was introduced in several communities (Haller et al., 2008: 303-309, 327).

### Box 5.2. Economic changes for the Cofán people

*“The traditional resource use of the Cofán was primarily based on shifting cultivation (gardens with bananas, manioc and tuberous fruits, avocado trees and chonta palms). The gardens were used for three years, after which they were substituted by new gardens within the same territory. [...] Hunting involving long expeditions into the Andes regions and fishing enjoyed great importance, although no quantitative data are available. Seasonal fruits were also gathered.*

*When oil production began in their territories, the Cofán were confronted with the massive destruction of their swidden, hunting, and fishing grounds along the upper reaches of the Aguarico River. Despite assurances by the government and the missionaries of the SIL [Summer Institute of Linguistics], who promised the Cofán the establishment of a park, their territory could not be protected. Oil pipeline construction and the immigration of settlers resulted in game being driven away and fishing grounds becoming polluted. The Cofán began to hunt with guns and some households attempted to keep pigs and poultry. The meat is intended for the market and is sold in larger towns (Nueva Loja). The Cofán are also attempting to grow cash crops such as coffee, maize and cocoa to meet their requirement for cash” (Haller et al., 2008:304-305).*

## 5.4. RESILIENCE AND THE IMPACT OF THE OIL BOOM

### 5.4.1. Resilience of the indigenous population

In this section, I will focus on the resilience of the Ecuadorian indigenous population. After this I will determine what impact the oil boom in Ecuador has had on them and in what way resilience has determined this impact.

#### 5.4.1.1. Resilience factor 1. Institutional diversity

Proxy indicator a: The creation of new institutions and their diversity

The indigenous population of Ecuador has been very successful at creating a powerful movement. As a response to oil development and its consequences (and to the decreasing local autonomy caused by state reforms) the majority of indigenous groups in Ecuador have organized themselves, which has led to the development of a multitude of indigenous organizations.

According to Bebbington et al. (1992), the seeds of the indigenous movements were planted with the creation of national laws that authorized the formation of community organizations. Furthermore, these organizations would be eligible to receive funds from the state for various development projects. As a response, from 1974 to 1990 the number of registered indigenous communities, associations, cooperatives and *centros* increased to 2,236 (Beck, 2001:3). The process of organizing oneself has been a heterogeneous process for the many different indigenous groups. The organizations came into being either by the creation of small organizations at the community level, or by the creation of overarching organizations that include several communities or even multiple different indigenous tribes.

An important reason for the development of so many different (types of) organizations is that a large diversity of positions about the oil issue exists among the indigenous groups in Ecuador. Some groups have chosen the path of negotiation, individually taking different positions in the negotiation process, while others remain in opposition and refuse any entry of oil companies into their territory. According to Wray (2000:74), the existence of the diversity of approaches of dealing with oil development is caused by the grip exerted by the state and oil companies on the indigenous organizations. Many times, with the support of military and local bodies of power, oil companies and the government pressured indigenous organizations to the extent that they became unviable opposition to the oil industry, forcing them into a negotiating process instead of

opposing all oil development.

### Box 5.3. Organizing by the Cofán

In 1954 the Borman family, missionary-linguists from the Summer Institute of Linguistics (SIL) of Texas, settled in Dureno, the largest Cofán village. The Bormans focused on linguistics and education, but also introduced western medicine, regular vaccinations, and several community development programs. When oil development began to influence the daily lives of the Cofán, the Bormans were helping them to survive and adapt to the changes that were rapidly taking place. From the 1970s onwards, with the help of SIL and Randy Borman, one of the Borman's sons, the Cofán began fighting back. They began clearing a trail to mark boundaries and applied for title to their traditional territory. After years of negotiation, title was granted to them to a total of 15,400 hectares of land.

Randy Borman is one of the key players in the Cofán's fight against oil development. Born in the jungle with his missionary parents, he grew up in large respect like a Cofán. When his parents decided to leave in 1981, he decided to stay behind. Shortly after that, Randy was elected as a leader for the communities of Dureno and Zábalo, and in the mid 1990s he was also elected as president of their federation. As an Indian chief who understands Indian as well as western ways, he has proven himself to be very capable of defending the rights of his people (Tidwell, 1996:15; Cepek, 2008:337)

Randy has played an important role in the political mobilization of the Cofán from the 1980s onwards. Political actions have been an important aspect of their cultural survival strategy. It enabled individual communities to stand up for their rights, which for instance happened when the Cofán blocked an oil road in 1988 (Steyn, 2003:285). Together with a group of bilingual Cofán who, next to the traditional Cofán language *A'ingae* spoke Spanish, Randy created an organizational network for the protection of the Cofán people. The Indigenous Federation of the Cofán Nationality of Ecuador (FEINCE) was created. For many years, the Cofán fought to obtain legal status for their federation, which they finally obtained in 2001. In the meantime the non-profit Foundation for the Survival of the Cofán people (FSC) was created, which is still used to secure resources for projects in Cofán territory (Cepek, 2008:337).

With the help of Borman, the Cofán continue seeking attention for their cause. They have protested on several occasions and have participated in marches and events to defend their rights. In 2004 Randy Borman founded the Institute for Environmental Conservation and Training (ICCA), which teaches Cofán conservation and management practices to other indigenous and non-indigenous peoples. The Cofán have also positioned themselves in transnational scientific and advocacy networks, which have started projects focused on environmental conservation, schooling and indigenous rights (Cepek, 2008:337).

Member of the Cofán  
(Solis, 2010).



At times, the fact that different organizations take a different stance when it comes to oil prevents them from working as one unified force to achieve their goals. Nonetheless, the different indigenous organizations have become increasingly skilled at formulating their demands and have found successful ways to operate in a

national and international context that has become increasingly responsive to their complaints and proposals (Wray, 2000:73).

The presence of large overarching indigenous organizations like CONAIE (see box 5.4) that try to represent the indigenous population as a whole, has the advantage that even the indigenous communities that live more secluded lives in the rainforest and have not actively organized themselves, can still benefit from the actions of these organizations. These communities themselves show much lower institutional diversity and are dependent on other organizations for extra resources or linkages.

#### Box 5.4. CONAIE

La Confederación de Nacionalidades Indígenas del Ecuador (In English: The Confederation of Indigenous Nationalities of Ecuador) or CONAIE is the largest indigenous organization in Ecuador, representing the Shuar, Achuar, Siona, Secoya, Cofán, Huaorani, Záparo, Chachi, Tsáchila, Awá, Epera, Manta, Wancavilca and Quichua (Wikipedia, 2010c). The organization, founded in 1986, brought together three regional indigenous organizations. For almost twenty-five years, the organization has worked to strengthen the position of indigenous people in Ecuador. CONAIE aims to counteract and prevent the negative impacts of oil development and wants to achieve the recuperation of land rights to indigenous territories that are lost to oil companies or colonists. The organization has used many different tactics to achieve its goals, among which media campaigns, educational programs, collaboration with national and international NGO's and popular uprisings (CONAIE, 2010). CONAIE is known for its massive protests. Their indigenous march in June 1994 even managed to shut down the country for two full weeks (Gedicks, 2001:78).

Thus, the institutional diversity of the indigenous population in Ecuador is high. They have created many different organizations at different scale levels and with different agendas.

#### Proxy indicator b: Linked secondary institutions

Linked secondary institutions can empower the indigenous movement. As Keck and Sikkink (1998, in Gedicks, 2001:83) state, *'by overcoming the deliberate suppression of information that sustains many abuses of power; networks can help reframe international and domestic debates, changing their terms, their sites and the configuration of participants'*.

The indigenous groups that that have been organizing themselves during the last decades have generally all learned the importance of external linkages and therefore created many of them. Through their extensive network of national and international linkages, the indigenous groups have found openings to get much attention and support for their cause. With protest marches and media campaigns many indigenous groups succeeded in attracting the attention of national and international media, NGOs and other actors like filmmakers and lawyers. Indigenous groups have joined hands with foreigners and jointly created a multitude of international organizations and campaigns, such as the Rainforest Action Network (RAN, 2010), Save America's Forests (SAF, 2010) and AmazonWatch (AmazonWatch, 2010). Furthermore, several multilateral development agencies like the Inter-American Development Bank, The World Bank, and the UN Development Program have created many programs that support indigenous groups in Ecuador.

In many instances, the international linkages have protected the physical safety of indigenous leaders and other members of the community. This was for instance the case when in 1994 during large-scale national indigenous protest marches, the government ordered the arrest of CONAIE's native leaders. Linked organizations immediately lent a helping hand. The Catholic Church provided sanctuary to the indigenous leaders and the Ecuador Network put pressure on the government to start a negotiation process and to end the indigenous uprising (Gedicks, 2001:82).

The creation of transnational networks by and with the indigenous groups has made it possible to receive attention and recognition from private corporations and international bodies such as multilateral banks, something that was very different a few decades ago. Even though this change does not necessarily imply a

radical change in the behavior of these institutions or of the national government, it certainly has created a political space for the indigenous people (Gerlach, 2003; Gedicks, 2001:83).

Thus, the indigenous people in Ecuador have created an extensive network of national and international allies that support their cause. This support gives them a stronger position in society and a better ability to adapt to and shape changes that come on their path.

Proxy indicator c: Diversity of resources/means

A diverse set of resources and means can give indigenous groups more policy options and flexibility towards changes. I will firstly focus on political influence.

#### Political influence

Indigenous people can use their political influence as a means to achieve their goals.

When electoral democracy returned in Ecuador in 1979, this created both opportunities and challenges for indigenous people. The ruling multi-party system and the frequent changes of coalitions created political instability, which opened up spaces for the indigenous movement. The indigenous movement created strategic alliances with many other social movements. Plans to create an indigenous political movement were being formed. However, for a long time the large indigenous organization CONAIE rejected participation in elections and refused to support indigenous political parties or candidates. It claimed that Ecuador's elections and politics were fake. However, by the end of 1995 it decided to change its attitude towards indigenous representation in politics and supported it. Soon after this, the political movement called the 'Movimiento de Unidad Plurinacional Pachakutik-Nuevo País', or 'Pachakutik' was created. Only a few months after its foundation, eight Pachakutik candidates won office as national and provincial deputies during the elections. With ten percent of the total seats, Pachakutik became the fourth largest political bloc in the congress. Including also all elected offices, also at a local level, Pachakutik candidates won a total of seventy-six positions (Beck, 2001). The fact that the network of indigenous organization has been able to make Pachakutik quite an important political player in such a short period of time is quite an accomplishment.

One of Pachakutik's successes has been that it, along with organizations such as CONAIE, has been able to force changes through in the national constitution. These changes focused on the recognition of Ecuador as a multi-cultural country, which paved the way for reforms like bilingual education. Furthermore, it has successfully prevented the signature of certain free trade agreements with the United States (Wikipedia, 2010 (5)).

During the last years, the popularity of Pachakutik has decreased a bit. In 2002 the party still won twelve out of a hundred seats. However, when Pachakutik's leader Lucio Gutiérrez left three months after the election, the party went through some internal struggles. At the elections of 2006, Pachakutik obtained six seats in Congress. The party has been able to settle the prevailing differences within the party and is hoping to increase its influence in Ecuadorian politics (Beck et al., 2006: 165; Wikipedia, 2010 (6) )).

Thus, the indigenous people have increased their political influence significantly. With the creation of their own political party they have created quite a powerful and unique situation for themselves, where indigenous representatives have organized themselves in a political party that is supported by many (indigenous) civil society organizations in the country.

#### Legal means

A second type of means that has been used by indigenous groups are legal means<sup>17</sup>.

With the creation of national laws that authorized the formation of community organizations, the indigenous population could start to organize itself. Furthermore, these laws stated that newly created organizations

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<sup>17</sup> Due to a lack of other sources of data, I had to rely heavily on Haller et al., 2008 for the description of the legal means of the indigenous population in Ecuador.

would be eligible to receive funds from the state for various development projects (Bebbington et al., 1992). As we have seen, these legal changes have really sparked the development of Ecuador's indigenous movement.

When it comes to legal land rights, indigenous people have limited rights to ownership of their territories. *“Although indigenous territories are recognized in Ecuadorian law and reservation areas have been earmarked for indigenous groups, their rights over these lands are essentially usufructuary and are not land titles in the true sense. All resources above the surface belong to the indigenous groups, while resources below the surface belong to the state. The state has been granting land titles since the sixties and indigenous people (e.g. Quichua farmers) could also acquire private land. Since the Agrarian Reform Law of 1973, however, the recognition of land rights is linked with proof of economically efficient and productive use. The government introduced this legislation to increase agricultural production, which was too low given the increased demand due to the petroleum boom. Fallow lands under swidden cultivation as well as areas used for hunting and gathering are not regarded as being ‘used’. The Agrarian Reform Law entitles the state to expropriate land for which the indigenous have land titles if it is not ‘intensively’ used. [...] The agrarian legislation [...] creates incentives for groups of settlers to move to the Oriente”* (Haller et al., 2008:285). Thus, the laws concerning land ownership in many cases do not provide indigenous groups with legal title to their lands, and even if these are obtained, this does not prevent oil development from starting since the resources below the surface of their territories do not legally belong to them.

Environmental protection laws are not of much help either. Although laws exist that should protect nature, indigenous groups and their surroundings are hardly protected by these. In 1990, the Law of Forestry and Conservation of Natural Areas and Wildlife was created. This law prohibits any kind of degradation of the environment. Furthermore, a department for environment in the Ministry of Energy and mines was created, as well as a Sub-Secretariat for Environmental Protection (SMA). However, both of these institutions have little political influence and are underfunded. The SMA has *“published environmental guidelines for oil and natural gas production. An Environmental Impact Assessment (EIA) and an environmental management plan are now required to be submitted to the SMA before any new projects can commence. However, the SMA has no legal means to enforce at its disposal, and neither are the indigenous communities and their organizations nor any other groups involved in the process. The regulations mainly pertain to upper limits for disposing liquid wastes. However, the limit values are very high and do not take into account parameters such as water quality. Waste produced during drilling is merely required to be passed into a system of three collection ponds. Solids can be buried without first determining their chemical composition. Gases are also allowed to be burned off. Even with these legal regulations, it should be possible to proceed against cases of environmental pollution.”* (Haller et al., 2008:286).

Indigenous groups in Ecuador have indeed used legal means in dealing with disturbances caused by oil development. For instance, in November of 1993, five indigenous groups joined forces to collectively file a lawsuit against Texaco in an international court in New York to *‘remedy the negligent, reckless, intentional and outrageous acts and omissions of defendant Texaco, Inc., in connection with its oil exploration and drilling operations’* (Arthaud, 1994, in: Gedicks, 2001:74). The lawsuit still continues today, but now against Chevron, who inherited the social and environmental problems from Texaco when it bought the company in 2001. In 2008 a court-appointed independent expert recommended that Chevron be held responsible for damages of between 7 and 16,3 billion dollars. Later the assessment of the damages was increased to 27 billion dollars, when unaccounted costs, such as disease and clean up costs, were added. This was a major breakthrough for the indigenous communities. A final outcome for the case is yet to come. The case is unprecedented. It marks the first time a U.S. company faces a judgment in a foreign court over environmental crimes. A ruling against Chevron would have repercussions far beyond Ecuador. The oil industry and communities around the world are watching what will happen and waiting on the outcome. The verdict will either put multinational corporations on notice that they can and will be held accountable for environmental and human rights abuses anywhere in the world, or it will give them the green light to continue operating with business-as-usual (Chevron Toxicology, 2010).

Thus, the national laws of Ecuador do not give indigenous people many opportunities to defend their territories against oil development. Nonetheless, the indigenous groups have found a creative way to get around this restriction and have turned to other options, like they have done in the lawsuit against Chevron.

## Monetary income and human capital

I will now focus on the monetary income and human capital of indigenous people in Ecuador. A means that usually makes obtaining other resources or services, as well as achieving one's goals in society a lot easier, is money. Generally speaking, this is a resource that is not very abundant among Ecuadorian indigenous groups. According to Hall et al., (2006:221) among indigenous people poverty levels are very high. Table 5.1 shows a trend of increasing levels of poverty and extreme poverty. This table however only gives us information about a limited time period (1994-2003). Poverty among non-indigenous people is also significantly lower than among indigenous people.

A measurement I have found of the overall poverty in 2006 showed a poverty decline, but unfortunately did not focus on the difference in poverty levels between indigenous and non-indigenous people (NationMaster, 2010; Central Intelligence Agency, 2010).

	<i>Poverty</i>			<i>Extreme poverty</i>		
	Indigenous	Non-indig.	All	Indigenous	Non-indig.	All
1994	79.8	50.9	52.8	47.6	13.6	13.6
1995	64.4	55.3	55.9	27.2	19.5	19.5
1998	87.0	61.2	62.6	55.6	25.2	25.2
1999	91.8	64.1	66.2	74.1	25.7	25.7
2000	84.3	67.6	68.8	63.3	38.6	38.6
2001	80.3	59.3	60.8	56.0	32.0	32.0
2003	80.2	57.9	59.6	56.6	31.0	32.9

Table 5.1. Poverty by ethnicity, Ecuador, 1994-2003 (percentage). (Adjusted from: Hall et al., 2006:75)

Furthermore, the Living Conditions Survey of 1998 (in: Hall et al., 2006:79) shows that of the people that have a job, indigenous people receive on average only sixty-three percent of the income of non-indigenous people.

Access to human capital (e.g. education, potable water, electricity and sanitation) is essential to alleviate poverty in indigenous households (Hall et al., 2006:13, 17, 19-20). In this areas the indigenous people are relatively disadvantaged. On average indigenous people have only attained 4,3 years of formal education, versus 6,9 for non-indigenous people (also see section about knowledge). Specific data about the access of indigenous people to other services is not available. However, The World Health Organization (2010) indicates that in 2008 eighty-eight percent of the rural population had access to improved water sources, and eighty-four to sanitation facilities. Since most indigenous people live outside the cities, these numbers can give a rough estimation of their access to these services. The access to these facilities has been growing quite fast during the last years. The extent to which indigenous people have access to electricity unfortunately remains unknown.

When it comes to health care, there are no large differences between the percentages of indigenous and non-indigenous people who report an illness (table 5.2). However, on other health indicators such as the infant mortality rates, child mortality rates, children's malnutrition levels, and health insurance coverage, indigenous people score significantly worse than non indigenous people (Hall et al., 2006:100-102). Furthermore, indigenous people are more susceptible to Western disease (see box 5.5).

	<i>Indigenous</i>			<i>Non-indigenous</i>			<i>Total population</i>
	Rural	Urban	All	Rural	Urban	All	
Illness or injury	50	48	48	50	44	46	46
Bed-ridden more than one week	26	23	25	34	29	32	31
Received medical care	79	75	77	76	77	76	76

Table 5.2. Percentage of people who were ill or injured and sought medical care during the month prior to a survey performed by the Living Conditions Survey in 1998 (adjusted from. Hall et al., 2006:95).

#### Box 5.5. The Cofán and Western diseases

The written history of the Cofán people started in 1536 when a Spanish expedition, in search of gold, made contact with the Cofán. Soon after, many Cofán people were forced by them to work as slaves or work in the mines. The Cofán then launched a series of attacks against the Spanish, to which the Spanish were unable to defend and they were therefore forced to withdraw from the Cofán territory (Steyn, 2003:277). After some peaceful years, a second wave of Spanish intrusion into Cofán lands took place. This time the invaders were missionaries. Their presence lasted from 1602 until 1767, when the Jesuits were expelled from Ecuador (Smith, 2010). The Catholic missionaries had the goals of converting the Cofán to Christianity and exploiting their labor for financial gain. The missionary activities led to the gradual acculturation of the Cofán and the incorporation of new crops and tools into their culture. An even more important consequence for the Cofán of the prolonged contact with the outside world was their large population decline. Despite almost a century of limited contact with the outside world, their population, which was about 15,000 in 1492, was reduced to around 1800 people in 1862. The main cause of the population decline was the introduction of western diseases (Steyn, 2003:278-280). Between 1862 and 1954 several new intruders entered the territory. There were geologists, explorers, anthropologists and Catholic friars. They all came for different reasons, and all had a lasting impact on the Cofán. With the Catholic friars, measles were introduced and the population declined further to 300 to 350 people (Tidwell, 1996:25). Contrary to the expectations of some, the Cofán people are still alive today and many of them are still living in their territory. Improved health care, created by a network of supporting organizations, led to a gradual increase of the population in the 1970s and 1980s to about 800 people in the year 2000 (Ethnologue, 2000)

It has become clear that when it comes to monetary income as well as access to human capital, indigenous people in Ecuador are quite limited. For this reason, they have sought other, generally non-material means to work towards their goals.

Proxy indicator d: Diversity/ flexibility of management and policies

The indigenous people of Ecuador are better able to respond to oil disturbances when their policies and management practices are diverse and flexible towards change. I will now discuss their usage of several approaches for dealing with oil development.

#### Protesting and marches

A means that has proven to be very powerful for indigenous people in Ecuador is protest marches. A multitude of marches and other forms of civil disobedience have taken place over the years. Marches led by CONAIE, in which all indigenous groups joined forces took place in 1992, 1994, 1997, 2000, 2002 and 2005 (Wikipedia, 2010c). These large-scale marches have proven to be a very powerful tool for indigenous groups. For example, in 1992 1,500 indigenous people marched over 200 kilometers from their communities in the Oriente to Quito, the capital of Ecuador. The march was supported by large international NGOs, such as Oxfam America and The Rainforest Action Network. The protesters demanded titles to almost 21,000 square kilometers of ancestral lands from the government. After a negotiation process, they received title to their

lands, which protected them from further colonization. However, it did not prevent the state from giving oil companies exploration rights to these lands. The indigenous groups obtained only surface rights, but the state kept sub-soil rights. Even though this march did not result in a guarantee to the end of oil activity, it was still a breakthrough since it did create mass popular support in and beyond Ecuador. The march marked a growing political maturation and sophistication of the indigenous rights movement (Gedicks, 2001:74). Two other examples of indigenous protests are provided in box 5.6 and 5.7.

Box 5.6. Indigenous protest against new laws

A news website on Latin America and the Caribbean reports about an indigenous protest that took place at the end of 2009.

*“On Sunday, Ecuador's largest indigenous organization, the Confederation of Indigenous Nationalities of Ecuador (CONAIE), mobilized its bases to protest new water, mining and oil laws. The new water law would give the state control over the country's water supply, including those resources found on indigenous territory. CONAIE argues that “the policy amounts to privatization of the country's water supply” and threatens the indigenous population's collective rights to their territories and resources, as required by the Ecuadorian Constitution and international laws such as International Labor Organization Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples. As a result, hundreds of indigenous protesters blocked the Pan American highway in several provinces throughout the country on Monday, but the protests were called off after Ecuadorian President Rafael Correa promised to hold a dialogue, “without conditions,” to hear their objections to the new laws” (Poe, 2009).*

What will happen with the new laws still remains to be seen. Nonetheless, this event shows the power that indigenous groups have in Ecuador. After the president learned about the protests, he was immediately willing to hear the concerns of the indigenous people.

### Box 5.7. Success for Yasuní

In the heart of the Amazon basin lies one of the most biologically diverse forest on the planet, Yasuní. The Yasuní National Park is home to several indigenous groups, among which the Waorani and some groups still living in isolation. Yasuní lies on top of Ecuador's largest undeveloped oil reserves, the Ishpingo-Tambococha-Tiputini (ITT) oil block (LiveYasuni, 2010).

For several years indigenous groups and national and international organizations have pressured the government to leave Yasuní's oil in the ground, organizing protest marches, creating media campaigns and creating international political support for this cause (e.g. Gerlach, 2003: 56; Save Americas Forests, 2005). In August of 2010, a historical event took place. Vidal and Carroll (2010) report:

*"Ecuador [...] yesterday asked the world for \$3.6bn not to exploit the Ishpingo-Tiputini-Tambococha oil block in the Yasuni national park. A knockdown price, it said, considering the oil alone is worth more than \$7bn at today's prices. The 407m tons of CO2 that would be generated by burning it could sell for over \$5bn in the global carbon markets. But neither the oil block nor the park is for sale, and under the terms of a unique, legally binding trust fund set up yesterday by the government and the UN, the oil and the timber in Yasuni will never be exploited. Instead, donor countries, philanthropists and individuals around the world are being invited to pay the money in return for a non-exploitation guarantee. The idea of rich countries paying poor countries not to exploit their forests in return for financial compensation is being promoted at the global climate talks which reconvened this week in Bonn, Germany. But the idea of paying poor countries not to develop valuable oil reserves is believed to be the most radical and most forward-looking yet. 'The object is to preserve biodiversity and prevent climate change emissions. Ecuador is an oil-exporting country and the oil reserves in Yasuni have been shown to represent 20% of the oil in the whole country,' said Helga Serrano, from the Ecuadorean foreign ministry yesterday in Bonn. 'We will keep then oil underground indefinitely. We think \$3.6bn is a fair contribution from developed countries,' she said. So far, only European countries have shown a firm interest. Germany has said it may pay \$800m over 13 years, with Spain, France and Switzerland reportedly considering the offer. Guatemala and Nigeria have asked Ecuador for help with similar programs".*

This initiative from the Ecuadorian government is a large victory for the indigenous people. They have successfully blocked oil development for years, and if this plan really comes through, in Yasuní oil will stay in the ground indefinitely, preventing the destruction of this important ecosystem.



National park Yasuní  
(Torres, 2010).

Thus, indigenous people in Ecuador have been very successful at organizing protest activities to oppose oil. In many cases, these protests have led to positive results for the indigenous groups.

## Physical display of power/violence

Indigenous groups used physical display of power or the use of violence a lot in the past to keep intruders like the Spanish invaders out of their territories. This strategy has currently only been used in a few cases. In these cases this tactic led to positive outcomes for the indigenous people. Boxes 5.8 and 5.9 provide us with two examples of cases in which this strategy was used.

### Box 5.8. The Cofán and physical displays of power

In box 5.7, I described the Yasuní national park. 1991, after repeated illegal intrusion of their territory for seismic testing, the Cofán people living there detained and expelled twenty-four seismic technicians. A month after that, the indigenous group confiscated the radio of another trespassing seismic crew and then also detained the crew's boss until he agreed to evacuate his employees. To the dismay of the Cofán, in 1992 the government made seismic exploration legal in Cofán territory by giving out permits for it to Petroecuador. During a period of six weeks, hundreds of kilometers of trails were laid out, dozens of heliports were constructed and thousands of kilos of dynamite were detonated. After this, the workers disappeared and everything was quiet for a year. The Cofán hoped no oil was found. They managed to secure title to over 800 km<sup>2</sup> of land, which gave them greater legal footing to resist intrusions (Tidwell, 1996:41).

In February of 1993, a group of Cofán men discovered new oil workers in their territory, who were cutting down trees and building a drilling platform. This upset the Cofán greatly, since a permit was given for exploration, but not for building wells. Petroecuador used a tactic, which is applied on a large scale in Ecuador, of not asking permission and just starting oil activities where it desired. Immediately, letters were sent by the Cofán to the company and the government, demanding to halt the illegal operation. The letters went unanswered and the Cofán found out that, next to the fact that operations were being continued, the company was planning to build a road from a heavily colonized area at the Napo River into Cofán land, which would most likely lead to a wave of settlers. With authorization of the national park management, the Cofán entered the construction site of the Paujil well unarmed and confiscated all chain saws being used without incident. However, a short while after this the workers already had replacements, and were hunting the surrounding area, killing many endangered animals. After this, the Cofán's leader Randy Borman ordered an armed visit to the site. With twenty-two other men, half of them carrying shotguns, he returned to the well site. The Cofán men surrounded the oil workers, which shortly after withdrew. Soon after this, the well site was declared illegal and Petroecuador had to suspend further operations, an immense victory for the Cofán (Tidwell, 1996:43).

A Cofán member describing events that took place in February 1993:

*“ ‘The petroleros’, Belizario said, ‘they came and made an illegal well on our land. So we made a circle around them and were ready to kill them all.’ He didn't pause to measure my reaction to the provocative phrasing. ‘We were strong. We had spears and guns. If they had refused to stop bothering us, we would have killed them all.’ He made a thrusting motion with an imaginary spear. His longish hair swayed forward with the gesture, swinging around a face that had a sculpted beauty. ‘Why?’ I asked. ‘Why did you attack the well?’ ‘Because of what would happen if we didn't.’ We were standing by a beached canoe with wide curving gunwales made dry and parched by the equatorial sun. Belizario dipped his hand in the river and began drawing a map using his index finger, leaving a wet trail on the bone-dry gunwale surface. ‘Here,’ he said, ‘is the old Cofán land upriver where my father still lives, near Dureno.’ He drew a rectangle representing that tortured stretch of land 120 river miles away. ‘The oil roads Texaco built are here, here, and here,’ he said, drawing dots inside the lines. ‘And my father lives here.’ He put an X inside the dots. ‘He lives right in the middle of the wells and roads. We don't want to live with wells around us here like they do there. The wells smell and they kill animals and the roads are slippery with oil. So we attacked the Paujil well before they could finish it.’ ‘And what was the outcome?’ I asked. ‘Was anyone hurt?’ ‘No one was hurt. And the outcome is that the well is shut down now, forever.’ Before I could ask another question, he added, ‘And we get solar panels from the company.’ ‘Solar panels?’ I said, confused. ‘Yeah, one solar panel for each house in Zábalo. The company's going to give them to us. We did a really good job at that well.’ ” (Tidwell, 1996:38).*

### Box 5.9. The Huaorani and their dealings with intruders

In 1989, Yasuní national park, located in the eastern part of the Ecuadorian Amazon was declared as a World Heritage site by UNESCO. Around 2500 Huaorani Indians live a secluded life in this nature reserve. Unfortunately for the Huaorani, under the national park lie enormous oil fields that contain approximately 850 million barrels of oil, almost twenty percent of Ecuador's national oil reserves (Ten Hoedt, 2010:35).

The Ecuadorian constitution forbids oil extraction in Yasuní, unless the national interest requires it. In 2007, Ecuador's environmental movement proposed a moratorium on oil extraction, however president Correa continued to consider drilling for oil in Yasuní.

As a response, the Huaorani have stated that they will defend their territories against oil development. In the past the Huaorani have killed missionaries, loggers and oil workers with spears, and they say they will kill again if necessary. Alicia Cahuiya, a Huaorani woman, states: *'oil companies, not in my lifetime. We want to live with the trees, without petroleros [oil companies]. Our ancestors lived healthy lives. Before there were no diseases, there was no pollution. We Huaorani defend the forest. We will not allow seismic researchers, new roads or oil extraction. If we have to, we all go there. All forty settlements. With spears and poisonous arrows'* (Ten Hoedt, 2010: 36. -Translated to English).

As we have seen in box 5.7, it looks like oil development will not take place in Yasuní. Due to the efforts of all of the involved opponents of oil, including the Huaorani, the Yasuní National Park will probably be left untouched.



The traditional weapon used by the Huaorani is the *tapa*, a lance two meters long, with one end shaped like a harpoon and the other forming a sharp point. The lance is used to hunt large prey, including the *ure* and the *amo*, two types of wild pigs, and also to kill human beings. When carried for the latter purpose, the lance used to be decorated with colourful feathers (Kanada, 2010).

### Attracting media attention

In Ecuador, indigenous groups have been successful at attracting the attention of national and international media for their cause. In the international media, the Ecuadorian case receives the most attention from all four case studies. Many of the linked national and international organizations are important for the indigenous people to help them to send their message about their struggle all over the world. Organizations such as Human Rights Watch, Amnesty International, Amazon Watch and the Amazon Defense Coalition have published many reports, created websites, made documentaries, written books and press releases, and so on.

### Community-based ecotourism

An extra strategy used specifically by indigenous groups in Ecuador is the creation of ecotourism projects. Indigenous groups in Ecuador have found out that tourism is an important factor that can counteract oil

development. From 1987 to 2000, the number of visitors of the Oriente region grew by an average of twelve percent per year, and by the year 2000 tourism even became Ecuador's fourth-largest source of foreign exchange. The government came to that there ecotourism was an alternative source of income in which the conservation of nature creates economic profit (Gerlach, 2003:55). The indigenous population has taken advantage of this situation, and there are now at least thirty-eight community based ecotourism projects in Ecuador. Each of these projects economically benefits local indigenous groups while giving nature an alternative economic value, which encourages the preservation of these natural areas (Wesche et al., 2001)

Thus, in this section it has become clear that the indigenous people have been using many different policies to counteract oil development. They have organized many protest activities, and their strategy of threat or violence has been successful in a few cases. They have been successful at attracting the attention of the media and have created ecotourism projects as a way to protect natural areas against other economic development. Box 5.10 reveals a case of a community that has used many diverse and flexible strategies to buffer oil disturbances.

### Box 5.10. The Sani people

In the spring of 2009 I lived with The Sani people for about two months. The Sani are a Quichua community of about 400 people, living remotely at the river banks of the Napo River in the eastern part of the Oriente. Traditionally, the Sani lived in isolation and their culture has been one of hunting, gathering and subsistence agriculture.

A little over ten years ago the oil company Occidental Petroleum started to pressure the community to allow oil exploration on the Sani territory. Acknowledging that exploration would probably be inevitable and start anyway, even without the community's consent, the Sani decided to negotiate a deal with the oil company that would be as beneficial for them as possible.

In the year 2000 a final contract between Occidental and Sani was signed that allowed explorative activities by the company on Sani territory. The Sani community demanded in return that no roads would be built in the area. Furthermore, Occidental had to provide the community with a radio connection with Quito and Coca, build four tourist cabins plus an extra building for dining or other activities, and give them a motorized canoe. With this, the first step towards the creation of a small ecotourism project was made .

The Sani were hoping that no oil would be discovered, but unfortunately for them a year later it was. This time Occidental also wanted to start drilling for oil. After long negotiations, another contract was signed where the oil company was allowed to build a buried pipeline at about three hours walking from the Sani. In return the Sani demanded four more cabins, solar panels and some other means to make their ecotourism project more successful.

The project has developed into a quite successful endeavor for the Sani. All the money that is earned is directly reinvested in the community. Because of the project, all Sani children can now attend primary school. A primary school has been built in the community where classes are given by volunteers. Some of the Sani children can now also go to high school in Coca, which is a large city half a day away by canoe. A few Sani members have recently started their programs at university in Quito, where they study tourism. After finishing their studies, they will use their obtained skills for the Sani Lodge project. Several older members of the Sani have used the money to take courses in for instance management, cooking, working on the computer, or bird guiding to improve the quality of the service they can provide the tourists with at their lodge. Recently, three highly skilled employees have been hired from outside the community to work on the management and PR of the lodge in Quito.

The Sani have been trying to run their lodge in an environmental friendly way. Since the community still lives off and with the forest, pollution or destruction would jeopardize their own existence. They have therefore consulted experts on ecotourism and sustainable development from outside the community about this, and are now well on the way of being a sustainable project. Waste is reduced to a minimum and recycled, biodegradable detergents are used and many food products are grown organically by certain families.

From a perspective of fairness, receiving a few wooden structures and some solar panels in exchange for millions of dollars of oil wealth is perhaps not a good or a fair deal. Nonetheless, the Sani decided that, given the likelihood that oil activities would start anyway, to create an alternative road for survival of their community would be a good idea. They used the tools they received well, and have now seized all opportunities for positive and sustainable development. Because the Sani territory now has other economic value than just the value of its resources underground, and because it is now known by a larger, international audience, the community can no longer be ignored. The Sani have shown a high level of resilience, by quickly adapting to sudden and large changes. Through knowledge, networking, economic means and power they have created a buffer for future undesired events. This was shown when, during my visit in 2009, the oil company again approached the Sani for new oil development. This time the community decided enough is enough, and they successfully withstood the oil company's tactics to force new oil development on their territory. They contacted several NGOs to support their decision and invited experts to inform the Sani community members about the negative consequences of oil. After a long process of discussions, bribe attempts and correspondence, the oil company withdrew from the Sani territory.

### 5.4.1.2. Resilience factor 2. Knowledge

For this second resilience factor, I will look at the transfer of knowledge, as well as the diversity of the types of knowledge that have been used by indigenous people in Ecuador.

Proxy indicator a: Transfer of knowledge<sup>18</sup>

For this first indicator of resilience I will investigate to what extent knowledge is spread within the indigenous population of Ecuador.

In Ecuador, educational attainment has improved significantly over the last decades. However, the indigenous population has not equally benefitted from this improvement. Between 1948 and 1968 non-indigenous people had followed on average of 9.6 years of schooling, indigenous people 6.9 years. Although educational attainment has increased for both groups, the relative gap between them has increased since 1949 (Haller et al., 2006:88-89). Table 5.3 shows the educational attainment in 1998.

	<i>Indigenous</i>			<i>Non-indigenous</i>			<i>Total population</i>
	Male	Female	All	Male	Female	All	
Still in school	11	12	11	15	14	15	14
Level attained if not in school							
None	14	33	24	4	5	5	6
Incomplete primary	27	21	24	16	18	17	18
Complete primary	29	24	26	28	24	26	26
Incomplete secondary	19	17	18	26	25	25	25
Complete secondary	5	3	4	11	13	12	12
Incomplete university*	6	3	4	10	11	11	10
Complete university	2	1	1	5	4	5	5

\* Includes other types of higher level educational institution.

Table 5.3. Educational attainment, Ecuador, 1998 (individuals aged 15 and over, percent) (Adjusted from: Hall et al., 2006:90)

As is the case for the indigenous groups in the other three countries, bilingual education can lower the threshold for indigenous people to go to school. Bilingual education is now part of the Education system of Ecuador, and has the support of major indigenous organizations (Hall et al, 2006:94). However, the effectiveness of this system remains unknown. Box 5.11 focuses on bilingual education.

Traditional knowledge is usually orally transferred from one generation to the next within communities. This does not happen in schools but is a private matter. However, more recently indigenous groups have started to appreciate other forms of education about traditional knowledge as well, and for this reasons initiatives like the earlier described Institute for Environmental Conservation and Training (ICCA) have been created.

<sup>18</sup> There is little information available about this topic, and for this reason for the analysis I had to rely heavily on Hall et al., 2006.

### Box 5.11. Bilingual education

*“The Educación Bilingüe Intercultural (EBI) programme was sanctioned by the Ministry of Education after years of pressure and concerted action by indigenous peoples and organizations. The process began as early as the 1930s, when Dolores Cancuago developed and applied the first modern methods of bilingual education. Much later, in the 1970s, a group of indigenous professionals spearheaded innovations in participative, bilingual, intercultural education. The EBI programme was introduced in schools in the main indigenous areas of Ecuador, but it was not until 1985 that bilingual education for indigenous children was officially incorporated into the country’s education system. Indigenous organizations, however, retained technical and managerial control of the EBI programme. Thus indigenous intellectuals and leaders, together with Ecuadorian and European NGOs, played a key part in shaping the social development of Ecuador’s indigenous peoples. Moreover their education projects led to constitutional acknowledgements of the pluricultural nature of Ecuador—something that indigenous organizations have striven for over the decades” (Hall et al., 2006:95).*

### Proxy indicator b: Diversity of types of knowledge

As we have seen, on average, indigenous people in Ecuador have generally only received a few years of formal education in schools. This limits their exposure to Western types of knowledge. Despite this, indigenous people in Ecuador have managed to obtain the skills and knowledge necessary to deal with the world outside of their territory and organize themselves to counteract negative effects of it (see box 5.12 for an example). They learned how to understand politics and legal procedures and how they can use this knowledge to their own benefit.

As has been the case in the other countries, due to oil development and other outside influences, indigenous groups are losing their traditional knowledge. However, several initiatives have been developed to stop this process of knowledge loss, and recover and spread indigenous knowledge. An example of such a project is the ‘Indigenous Leaders Conservation Fellowship’. This project was established with the help of the NGO Conservation International. It focuses on the recovering and spreading of traditional knowledge about the protection against the threats to the ecosystems in which indigenous groups live. Furthermore, for the same purpose, the project tries to integrate traditional knowledge with Western types of knowledge and technologies (Conservation International, 2010).

### Box 5.12. The Cofán and knowledge

For the Cofán, the process of acquiring the knowledge and skills necessary to deal with oil development has been slow, mainly because they were relatively unacculturated when the oil boom started. Another reason for why adjusting was challenging for them is that their cosmology has always been entirely focused on a life in which forest, land and resources are plentiful. This did not match very well with western ideologies, communication methods, or the new developments. However, over the years, the Cofán have learned much about the life and the people that want to exploit their territory. It has been a slow process, but through their dealings with oil companies and the Ecuadorian government, and with help of the Borman family, they have learned to constantly adapt to the changing circumstances around them. With the help of SIL they managed to gradually make adjustments to their social and political organization and their economic mode of production. Their economy became more diverse, by shifting to the cultivation of different crops, which could be sold in nearby villages. Another important economic change was the start of several ecotourism initiatives (Steyn, 2003:280-283). They now understand how to deal with Ecuadorian society under its own terms and within the laws of the Republic. This encompassed organizing into legally recognized communities, upon which transfer of indigenous land title depends. It involved the creation of a pan-Cofan organization, the Asociación de Comunidades de la Nacionalidad Cofán. Local, national and international support for the Cofán cause had to be arranged, and a communication system between different communities and between the Cofán and their support network had to be created (Steyn, 2003: 284-285).

### 5.4.1.3. Resilience factor 3. Social- and ecological memory

This last factor is closely related to the previous factor, knowledge. The knowledge and experience that are acquired over the years are a crucial part of the social system of indigenous people and should therefore be stored. This source of memory provides indigenous people with a framework to deal with current and future developments in an adaptive and creative way (Berkes et al., 2003:362, 366).

Proxy indicator a: The storage of information

As we have seen traditional knowledge has been lost, but steps are being taken to retrieve and spread some of the traditional knowledge of indigenous people. I have found some information indicating that some means have been created to store this knowledge effectively. However, one cannot speak of a storage system. One example is a study jointly performed by Quichua communities living in the Curaray area of the Oriente and a researcher from the U.S. They have jointly written a book that focuses on the history of these Quichua people and their social and cultural traditions (Reeve, 2002). Another example is an ethno botany study performed in a joint effort between Shuar communities and the New York Botanical Garden. The Shuar and a team of researchers identified hundreds of plant species and their traditional usage by the Shuar. This knowledge has been assembled into a book (Bennett et al., 1999)

Furthermore, national and international organizations supporting the indigenous population of Ecuador have created means for the storage of some of the traditional knowledge, as well as for Western knowledge that is important for the indigenous people. These means include websites, books, scientific articles, reports, and documentaries. The facilities for the storage of knowledge that the allies of the indigenous people provide is very important and can provide them with a framework to deal with current and future developments in a more adaptive and creative way.

#### Box 5.13. The Sarayacu and knowledge use and transfer

Unlike in many other indigenous communities in Ecuador, all Sarayacu members are well informed about oil exploitation and related global issues. Sarayacu's own system of indigenous education, which starts with preschool and ends with university, reinforces the communal spirit. The education system is a mix between traditional and modern education. A very important aspect of the education is the creation of awareness of the importance of ecological preservation. The Sarayacu people work together with scientists from all over the world. An example of this type of collaboration is a natural resources management program the tribe is running together with a German university. The manager of the program, Dioniso Machoa, enlisted the entire community to count the animals on Sarayacu territory. Based on the information gathered during the three years of counting species, in 2001 the community set aside land to preserve large animals, such as tapirs.

The Sarayacu also understand very well how to use media for their cause. They have found ways to get their message heard. They have their own website, organize press conferences and try to get their story published anywhere they can (Handler, 2005).

The arrival of oil companies has changed much in the lives of the Sarayacu people. In order to survive, they had to open up their traditional culture to the Western world and create bonds with it. The Sarayacu have proven to be people that have a high adaptability to change, which they will need in the future.

### 5.4.2. The impact of the oil boom on indigenous people

In this chapter I have analyzed the third case study of this research project, focusing on the indigenous population of Ecuador and their dealings with the oil boom. In this last section I will focus on whether the impact that the disturbances caused by oil development have had on the indigenous population has depended

on the resilience of the indigenous population.

In chapter two I stated that I expect that if the resilience level of the indigenous people is high, it will have caused the absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts. I also expect that if the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa. Has this been the case for Ecuador?

When looking at the different scores on the proxy indicators for resilience, I find that the resilience of the indigenous population in Ecuador is medium to high. Ecuador has witnessed sustained indigenous mobilization. Many indigenous organizations have been created over the years, which work together effectively. The indigenous population is supported by a large network of national and international organizations. Indigenous people are represented in politics and have created their own political party. They have few legal means, but have nonetheless found ways to use the law in their favor. However, indigenous people have little monetary means or human capital at their disposal. The strategies they have used to deal with oil disturbances have been diverse and quite successful. They have organized many protest marches, have attracted media attention, and have used physical displays of power as strategies against oil development. Furthermore, they have developed a unique strategy in which community-based ecotourism projects are created to protect the forests.

The scores of the indigenous people in Ecuador on the second and third proxy indicators, which are knowledge and social-ecological memory, are lower than on the first one. Their traditional knowledge has decreased, but they have started some initiatives to recover and store this information. Due to a low level of formal education, they generally do not have much access to Western types of knowledge. However, they have acquired knowledge and organizational skills that are necessary to counteract the negative disturbances caused by oil. Furthermore, the bilingual education programs that have been developed might increase the access to Western knowledge, but their effectiveness is still unknown.

The indigenous people have been able to absorb or buffer some of the negative impacts of oil development, or turn them into positive ones. The indigenous people of Ecuador: have created a large protective network of associated (international) organizations, they have pushed the government to change the constitution, they have filed an auspicious lawsuit against an oil company, they have organized a multitude of protests, with one even shutting down most of the country, they have obtained legal rights to lands, they have created initiatives to counteract the loss of traditions and improve education, they have created their own political party and have taken political actions, they have attracted media attention which increased the support they received and provided them with protection, they have created community-based ecotourism projects to safeguard natural areas, and very recently their continuous efforts to save the Yasuní National Park have paid off. Despite of all these successes, the indigenous population has not been able to prevent all oil development from happening. Nonetheless, they have come up with diverse and inventive ways to prevent some new oil development from taking place, and buffer at least some of the effects of the oil development that did take place. Clearly, without all their efforts, they would have been worse off.

For a case in which the resilience level of the indigenous population is medium to high, my corresponding expectation was that their systems would have undergone medium to small changes in their functional characteristics during the oil boom. I just concluded that the indigenous population of Ecuador has been able to prevent and buffer part of the negative changes related to oil development. Furthermore, as we have seen the Sani people have even turned the disturbances caused by oil into a positive development for them. Nonetheless, the impact of the disturbances that have taken place cannot be called medium to small. Certain groups had to abandon their ancestral lands, pollution has destroyed ecosystems, traditional lifestyles have been lost, etcetera. Thus, my expectations have not been met. I have reason to believe this is caused by variables external to the research design. I will discuss this assumption more extensively in chapter seven.

Thus, for this third case study, my expectations have been partially confirmed. The analysis of the resilience of the indigenous population indicated that their resilience is medium to high, and the indigenous people have been able to prevent negative impact from oil partially. However, it was also expected that with medium to high resilience, indigenous systems would undergo only medium to low changes in their functional characteristics. However, changes were larger than expected.

## CHAPTER 6. PERU

### 6.1. INTRODUCTION

In this chapter, I will focus on the last one of the four countries of this research, which is Peru. It will become clear that Peru has a very long history of oil development, but after a boom period in the seventies oil is now no longer one of its main export products. Nonetheless, indigenous groups have experienced several negative disturbances caused by oil development. However, as compared to some other South American countries, Peru has not witnessed sustained indigenous mobilization.

In the following section of this chapter, the history and development of the Peruvian oil boom will be discussed, as well as the changes the boom has caused in Peruvian society. In the third section the focus will be on the different Peruvian indigenous groups, as well as on the disturbances that oil development caused for these people. Some specific cases studies of Peruvian indigenous groups will be discussed. In the fourth section of the chapter the resilience of the indigenous people as well as the impact the oil boom has had on them will be set out.

### 6.2. THE OIL BOOM

#### 6.2.1. The political and economic context prior to the oil boom

As was the case for the other case studies, Peru has a turbulent past that has largely influenced the social, political and economic features of the country today. In order to be able to understand the current Peruvian society and the events that are taking place now, a light will be shed on centuries that have preceded them.

Human remains and archeological findings show us that during the last few thousand years Peru has been inhabited by a variety of tribes. These tribes were living in different parts of the country, experiencing different climates and living conditions. Because these people depended on their surroundings for their survival, they have developed in many different ways. In 1438 the Inca's, a tribe that previously only ruled over a small part of Peru, started their conquest to expand their territory. Within the next twenty-five years, the ninth Inca, Pachacutec, expanded the Inca territory by conquering a large part of the central Andes, stretching from southern Colombia to central Chile. The Incas imposed their way of life in the areas they conquered, which unified the area politically (Benson et al., 2007: 32-34).

The Spanish arrived in Peru in the year 1532. During the four following decades they fought the Incas in order to gain control in the region. In this period, many (unarmed) indigenous people died. In 1572 the last ruling Inca leader was defeated and Spain gained full control. A relatively peaceful period of about two hundred years followed. Lima developed into the main commercial, political and social center of the Andean nations, with silver mining as its main economic activity (Benson et al., 2007:34-35). However, the peaceful period ended abruptly when in 1780 an indigenous uprising led by the self-proclaimed Inca ruler Tupac Amaru II took place. The indigenous people rebelled against the *encomienda* system. In this system Spanish settlers were given a plot of land and native slaves. New settlers received land title to a certain area and had the right to force indigenous people to work on it (Palmerlee et al, 2007:824).

By the early 1800s, the inhabitants of the Spanish colonies in Latin America had become dissatisfied and calls for independence started. Change came from two directions. José de San Martín came from the south and first liberated Argentina and Chile. After this, he formally proclaimed independence in Lima in 1821 (Benson et al, 2007:36). In the north Simón Bolívar liberated Venezuela, Colombia and Ecuador. After San Martín and Bolívar met in Ecuador, San Martín left South America and Bolívar continued the struggle for independence in Peru. After two decisive battles the Spanish surrendered in 1826. Independence from Spain was achieved. The removal of the Spanish rule that previously linked the different colonies now led to a

power vacuum (Luft, 2001:30-31). Another brief war against Spain was won by Peru in 1866, but a war against Chile over the resource rich Atacama Desert was lost in 1883. Chile annexed large parts of the southern coastal areas of Peru, but many of these were returned in 1929. Another war about borders between Peru and Ecuador started a few years later. In 1942 a large (Ecuadorian) land area was given to Peru in a treaty, but smaller disputes about the land continued until 1998, when a peace treaty put an end to all hostilities (Palmerlee et al, 2007:824).

### 6.2.2. The development of the oil boom

The Peruvian era of oil started around 1860, which is earlier than in the other three countries. In the early years of oil development, Peru was a relatively important player in South America in the oil business. However, after initial successes, during a large part of the twentieth century inadequate policies prevented the oil industry from developing further. Although oil production in Peru increased significantly in the 1970s, from the second part of the twentieth century onwards other South American Countries started to outpace Peru's oil development.

Thus far, compared to the other countries under study, oil is an export product of less importance. Currently, Peru's main export products are gold (24% of the total exports), copper (17,1%) and cotton products (13,4%), leaving oil at the fourth place with 12,8% (International trade Suite 101, 2008).

After a rapid but short-lived boom in the late 1970's Peru's oil production has decreased, and has now left the country at the forty-ninth place (out of 114) on the list of the largest oil producers in the world. During the last decades production stagnated with annual production numbers fluctuating between four and nine million tons (BP, 2009). However, since 2003 many new plots have been released for oil development and new international contracts are actively negotiated. Currently,

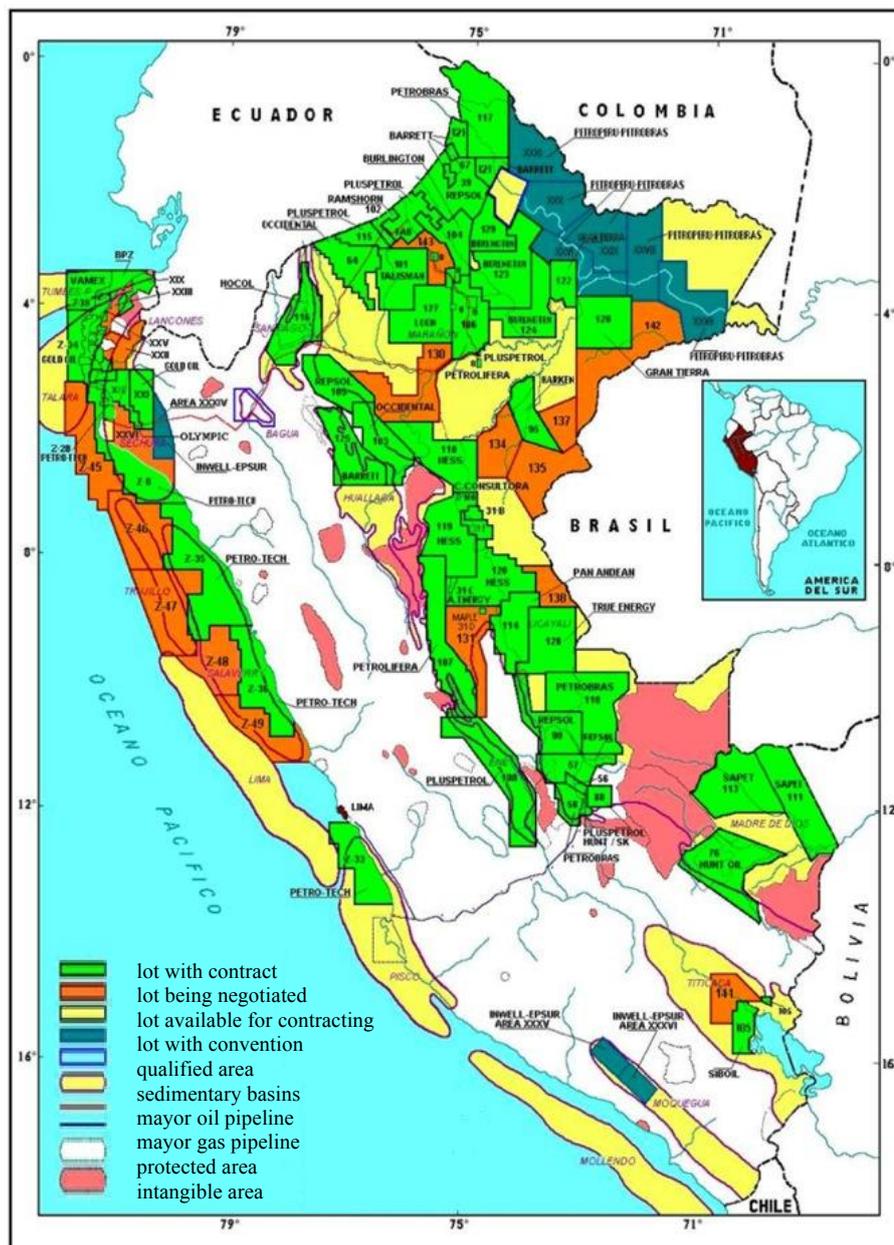


Figure 6.1. Peruvian oil lots and oil infrastructure, and protected and intangible areas (adjusted from Quetzal-Leipzig, 2010)

forty-one percent of the Peruvian Amazon is covered by fifty-two active oil and gas concessions, which is almost six times as much land as was covered in 2003 (see figure 6.1). More of the Peruvian Amazon is currently being leased to oil companies than at any other time on record. The amount of area to be leased is on track to soon almost double, estimated at reaching seventy percent of the total Peruvian Amazon (Hance, 2010). These developments could prelude a new oil boom.

#### 6.2.2.1. Political processes and changes

It has already become clear that Peru has a very long history of oil extraction. However, thus far oil has generally not been a central focal point for development policies. For a long time oil has been one out of many resources that have been used for economic development. Oil has been on the political agenda of Peru for a long time, but perhaps generally less prominently than was the case in other South American countries. In this section, the most important political events that have taken place during the Peruvian oil era will be discussed.

When the Spanish were defeated, they left behind a country that was unstable and politically in a power vacuum. As we have already seen, during the second part of the nineteenth century instability continued and several short wars took place.

Around 1900 the United States started to have more and more influence on Peru's economy and politics. The U.S. became involved in Peruvian mining, fishery, and agriculture. These sectors became quite successful and led to the creation of a new middleclass. This societal group wanted to change the government's policy, which was another trigger for instability and even outbursts of violence between groups within the country (Luft, 2001:31-32).

During most of the twentieth century, and especially the 1960s and 1970s, Peru's government was marked by coups and military dictatorship. In the 1960s, the administration of President Fernando Belaúnde Terry was involved in disputes with an American oil company. In 1968 the military stepped in and took control of Peru's best oil fields. The president was exiled to Argentina, where he stayed for over a decade. In 1980 the military allowed Belaúnde to return to Peru and run for office again. With Belaúnde's return, civilian rule returned as well. However, although Belaúnde was committed to democratic government, his second term was marked by domestic terrorism and violations of human rights (Benson et al., 2007:37).

The 1980s and early 1990s were again marked by violence and instability, this time also related to the presence of guerilla groups. The biggest guerilla group was the Maoist group Sendero Luminoso (Shining Path). This group wanted to replace the 'bourgeois democracy' with communism, and carried out a terroristic campaign against the government that led to between 50,000 and 63,000 deaths and disappearances. In 1985 Alan García Pérez became the new president. Initially he was popular because of tax cuts and the freezing of commodity prices. However, Peru's economy could not support García's ambitious policy and the value of Peru's currency dropped enormously. Hyperinflation occurred (at one point it even reached 10,000 percent) which led to economic and political catastrophes. Guerilla activity increased and demonstrations and protests against government policies were commonplace (Benson et al., 2007:37,41).

After Alberto Fujimori was elected in 1990, social and economic conditions initially started to improve somewhat. Fujimori's policy was right-wing oriented, with a focus on creating a free-market economy. Liberal reformations took place of import and export, taxes and foreign investment regulations. This change led to international financial support for Peru. However, Fujimori's reforms also caused large increases in prices of food and other commodities. In 1992 Fujimori suspended the constitution and created a new one. He also started an '*autogolpe*', a coup from within. Foreign aid providers perceived this as a non-democratic, dictatorial move and suspended their aid. In 1995 Fujimori ran for office again and was re-elected. In 2000 he ran for a third term, claiming this was possible because of the constitutional changes he had made earlier. In a questionable election process he was voted in again, but because of increasing pressure he eventually sent his resignation later that same year (Luft, 2001:33; Benson et al., 2007:38).

In 2001 new elections were held and Alejandro Toledo became the new president. Under his rule corruption increased greatly. His government gave oil a more prominent place on the agenda for economic development again. However, during Toledo's rule economic development actually decreased. Unemployment grew,

wages were stagnant, and cost of living increased. Toledo's popularity dropped immensely and demonstrations and strikes took place on a regular basis (Palmerlee et al., 2007:824).

The 2006 elections were won by ex-president Alan García Pérez, who is still in office today. One third of the people that voted for him considered it as 'voting for the lesser of two evils'.

During his presidency, García's popularity has been falling. Cost of living has grown once more for Peru's citizens. Also, a series of corruption scandals has taken place. One of these corruption scandals involved bribery between an important state official and an oil lobbyist (BBC News, 2008). García continued Toledo's policy of expanding oil development, and his government has released large parts of the country for oil exploration and exploitation (Hance, 2010).

#### 6.2.2.2. Economic processes and changes

Peru has a very long history of oil development. Oil was initially extracted on a small scale by indigenous peoples to make tar or pitch. These substances were used in many different ways, such as the waterproofing of items and the embalming of mummies. During the colonial times oil exploitation increased somewhat, since pitch was needed for the caulking of vessels (Decano, 2010).

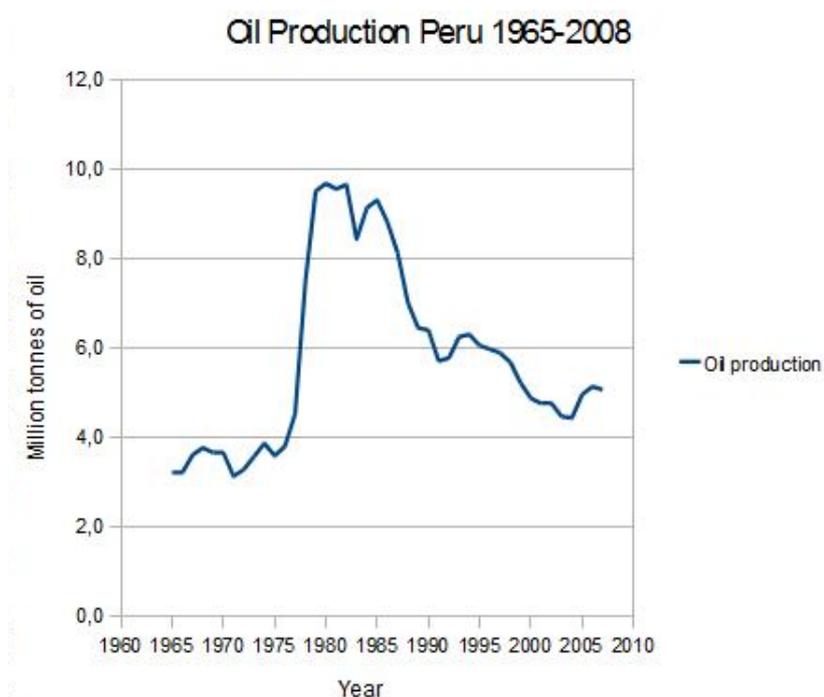


Figure 6.2. Oil production in Peru between 1965 and 2008 (Based on: BP, 2009)

the South American oil industry.

However, over the years the situation gradually deteriorated due to inadequate policies and the domestic oil industry fell. Oil production declined and stockpiles were decreasing. In order to halt the decline and to encourage new investment, some changes were made in the areas of oil exploration and exploitation, which were aimed at correcting some of the most problematic aspects of the oil legislation. However, the measures that were taken and the new contractual environment were not sufficient to fully regain the attention of the oil industry. Only a few new contractors decided to invest in existing exploitation areas (Monografias, 2010). In the mid-1970s oil production increased strongly, but after a decade it fell back rapidly again (see figure 6.2).

As a new attempt to promote new major contracts a new law was created in the 1990s. This law has the goals of bringing together the promising changes that had already taken place, solving some of the former ambiguities and providing some additional incentives. In mid August of 1993, the Peruvian congress passed

la Ley Orgánica de Hidrocarburos (the Organic Law of Hydrocarbons), which was published on November twentieth and entered into force in November of that year. This law has established a new legal framework for oil operations in the country (Monografías, 2010). However, in the period after the creation of the new law, no substantial increase in oil production can be noted (BP, 2009) (see figure 6.2).

In 2003, the Peruvian government decided to give the international oil industry carte blanche access to indigenous ancestral lands throughout almost the entire Peruvian Amazon. This largely increased the amount of land available for oil exploration and exploitation. When president García later came to power he argued that the development of new oil blocks is necessary to sustain Peru's economic growth and to fight poverty (United States Institute for Peace, 2010). Because of the new oil policy several U.S. oil companies are now starting to negotiate access to the furthest corners of the Peruvian Amazon, and U.S. government funds are being used for financing (Amazon Watch, 2010 (2)). As can be seen on the map in figure 6.1, many new oil lots have become available for contracting and some of these are already being negotiated. For the indigenous groups the loss of control over their ancestral territories that are now up for bidding forms a threat to their traditional ways of life. However, the Peruvian government has failed to consult or inform them about this issue (Amazon Watch, 2010 (2)).

Compared to other Latin American countries, Peru's economic performance has been quite good the last two decades. Its GDP shows a growth pattern as well as its GDP per capita (NationMaster, 2010 (3)). However, compared to the average GDP per capita in the world Peru is still not doing very well (Economic Research Service, 2010). Furthermore, poverty remains widespread. President García's government has developed policies to combat poverty, which have thus far performed pretty well. However, almost half of the country is still considered as poor. García is hoping that opening up the economy further will decrease poverty (IMF, 2010).

#### 6.2.2.3. Social processes and changes

Peru should not be considered a petro state to the same extent as countries like Venezuela. As we have seen, despite the long history with oil and the short-lived oil booms that have taken place in the past, oil has generally not been Peru's main export product. Instead, Peru is a raw material exporting country, of which oil is just one of several export products (Haller et al., 2008: 386). Therefore, the social effects of oil development are not as intense and easily distinguishable as for instance is the case in Venezuela. I have found only a few studies that have focused on the specific social changes that oil has caused for the Peruvian society as a whole.

Firstly, some general social trends in Peru are distinguishable. As we have seen Peru's political climate has been very unstable, marked by coups, dictatorships and corruption. During the guerilla war in the 1980s, civilians were stuck between the violence of Sendero Luminoso guerillas and the Peruvian military. The population suffered tremendously and thousands of people died. Since the war ended, relationships between different societal groups have remained damaged. Issues of race and class continue to create tension in Peru (Benson et al, 2007:41).

Other factors have been contributing to social instability as well. In Peru social instability is also linked to its economy and the division of wealth. Peru's GDP per capita has remained very low during the last thirty years (Economic Research Service, 2010). Despite the fact that the average national yearly income is very low, inequality in income distribution is very high and has even increased further during the last few years (Worldbank, 2007; Nation Master 2010 (2) ). The economic inequality of today has a long history, dating back to Peru's colonial heritage. While being a minority in Peru's society, the Peruvians of Caucasian or Spanish heritage still make up the majority of the country's upper class and dominate industry and politics. Inequality and extreme poverty have led to a situation of continuing civil unrest and hatred towards the wealthier class (Segrada, 2010). Different groups and organizations have mobilized themselves to protest their current situation and seek routes to change. An example of these are the '*rondas campesinas*' or peasant patrols, which are peasant organizations that defend the rights and the safety of peasants in northern Peru (Yashar, 2007:26).

During the last decades, Peru has seen an increase in social conflicts evolving specifically around oil. Oil

development in Peru takes place in the Amazon region of the country, which is mostly inhabited by indigenous communities. Negative social and ecological impacts of oil are mostly felt by them. These communities experience the unwanted intrusion of their lands by oil companies and settlers, the destruction of their livelihoods and the pollution of their water and soil (United States Institute for Peace, 2010:2,3; Peruvian Times, 2008; BBC News, 2008 (1) ). Despite these harmful developments, Peru has not witnessed a sustained indigenous mobilization against these developments (Yashar, 2007:26). However, recently indigenous protests against the government and oil companies have started to appear more. In the last few years dozens of indigenous people have died in violent clashes in conflicts about oil (Climate Science Watch, 2009). I will further elaborate on the situation concerning the relation between indigenous people and oil in sections 6.3 and 6.4.

### **6.2.3. The Peruvian oil boom and the resource curse**

In the previous sections describing the political, economic, and social changes that have taken place during the Peruvian oil boom, it has become clear that the boom has certainly influenced the development of the country during the last century. However, contrary to some of the other countries under study, oil has not been the central factor determining developments in Peru. The country's economy does not solely depend on oil exports. This has the advantage that if oil revenues drop, there will be other economic sectors that can absorb the blow. Based on the information that I have gathered, it thus seems like the Dutch Disease phenomenon has not developed in Peru, although it remains a future possibility. A thorough economic analysis could provide a fuller and more accurate picture about this topic. However, during the last decade comprehensive political and legal changes have been made to increase oil production. If the plans that are set out for new oil development become reality, oil income will become a more central factor in the Peruvian economy. This will increase the risk of the development of Dutch Disease.

When it comes to politics, during the oil boom, coups, dictatorship, and corruption have been commonplace. Oil has not been the main cause of these problems, but it is nonetheless linked to them. The presence of a weak government makes it susceptible for bad governance practices, which destabilizes the state further and increases the chances on dictatorship or corruption. Scandals and malpractices concerning oil have occurred in Peruvian politics. Corrupt politicians have made deals with oil companies, and laws concerning human rights and environmental protection have been infringed in order to increase oil production (BBC News, 2008).

Similar to the other three countries, only a small (white) minority has substantially profited from the oil wealth that has been created. A very large percentage of the Peruvian population still lives in poverty, and economic inequality has only increased during the last years. Furthermore, the indigenous people living in or near the oil blocks experience intense negative social and environmental effects from oil development.

Thus, it seems that oil has not been an intense curse to Peruvian society as a whole, especially since the oil has thus far not been a central economic factor. However, oil development has not led to any substantial economic, social or environmental developments. Furthermore, especially for the indigenous population of Peru, it has caused many negative effects. These effects as well as indigenous strategies to deal with them will be discussed in the next sections.

## **6.3. INDIGENOUS PEOPLE IN PERU**

In this section the indigenous groups of Peru will be introduced. The focus will be on the relationship between these indigenous groups and oil development, as well as on the disturbances that oil has created for them.



Figure 6.3. The different indigenous groups of Peru. (Adjusted from: Redportiamerica, 2010)

### 6.3.1. Demographics of indigenous people

The population of Peru consists of over twenty-nine million people. According to most census data, almost half of the population is indigenous, one-third is of mixed descent and the rest of the population has either a European, African or other non-indigenous descent. According to Valdivia (2002, in: Hall et al., 2006:200) the indigenous population numbers of Peru have been falling during the last decades. Valdivia calculated that in 1940 fifty-one percent of the population was indigenous. However, the indigenous population is still relatively large today. Estimates vary, but between thirty-eight to forty-seven percent of the total population is currently considered as indigenous. The majority of the indigenous population lives in the Andes region, where most communities are Quechua. In the Amazon region there are around fifty to eighty different ethno-linguistic groups, all speaking their own language. Eleven of these are living in voluntary isolation (Wessenhof, 2008:157; Devine, 1999:63; Yashar, 2007:21; IWGIA, 2010, Minorities at Risk, 2010 (1)). Among these different groups are the Yanetsha, Ayacucho, Cusco, Huáncu, Junín, Pasco, Ucayali, Loreto, Shawi, Harakmbut, Bora, Achuar, Amahuaca, Tikuna, Orejón, Kukama, Ese'Ejja, Arabela and others (IWGIA, 2010) (see figure 6.3).

### 6.3.2. History of the indigenous people

As has been the case for the indigenous populations in the other three countries under study, the indigenous people of Peru have a history that dates back thousands of years. Evidence has been found that shows that the first indigenous populations arrived in Peru around 20,000 years ago. The first groups settled in the Andean ravines, and later other groups also founded communities in the Amazon region (IGWIA, 2010).

The Spanish invasion led to the oppression and suffering of the Peruvian indigenous population. Among the Spanish colonists, power and status did not only come from material wealth and position, but also from the authority and control they could exercise over the indigenous population. Gradually a system developed in which Spanish bureaucrats ruled over segments of the indigenous population (Countrystudies, 2010). The Andean indigenous groups were soon subdued to colonial rule. However, the Spanish were never able to conquer all indigenous tribes living in the Amazon region because of their spirit of resistance and their remote location (IGWIA, 2010).

When this colonial administrative system eventually started to break down and its influence declined, the ‘mestizos’ (the part of the population that is from mixed descent) gradually gained part of the administrative power. This transition period was marked by the creation of many large estates on which (indigenous) slaves were working for landlords. New constitutional policies made it possible to break up indigenous lands into individually owned properties. As a result, many indigenous territories were claimed, purchased or stolen. This so-called ‘*hacienda system*’ stayed in place until it was abolished during President Velasco Alvarado’s land reform of 1969 (Countrystudies, 2010). From then on, indigenous people were granted formal autonomy from landlords. The Velasco government complemented the land reforms with the 1970 Statute on Peasant Communities. This statute redefined indigenous people, or Indians, as peasants. This was done to undermine their ethnic identities, to depoliticize them, and to make them cooperative with state policies. Another goal of the statute was to ‘modernize’ the indigenous people in a way that was compatible with Western ideas about economic development. The indigenous communities that agreed to ‘become peasants’ and have their communities reorganized along cooperative lines gained legal access to communal lands. The changes made by the Velasco government were only partially successful, however. Despite incessant government efforts, many communities refused to abandon their ethnic background and customs and continued to maintain their traditional indigenous systems (Yashar, 2007:232-235).

The new threat that many indigenous communities face today is the extraction of oil and other resources in their territories. Oil extraction, gold and copper mining, logging and intensive agriculture now cause serious problems for Peru’s indigenous peoples. In the next section I will specifically focus on the disturbances that oil development has been causing for the indigenous population of Peru.

### 6.3.3. Indigenous people and the disturbances caused by oil<sup>19</sup>

As we have already seen, oil activity in Peru has thus far not been as large-scale as in the other three countries under study. Disturbances have therefore generally been less intense and intrusive, yet they are clearly present. With the ‘*carte blanche*’ that was given to the oil industry in 2003, many areas in which indigenous people live are now open to oil activities. There are now fifty-two active oil concessions covering over 48% of the Peruvian Amazon, up from just 7% in 2003. Around 72% of the Peruvian Amazon has been divided into blocks

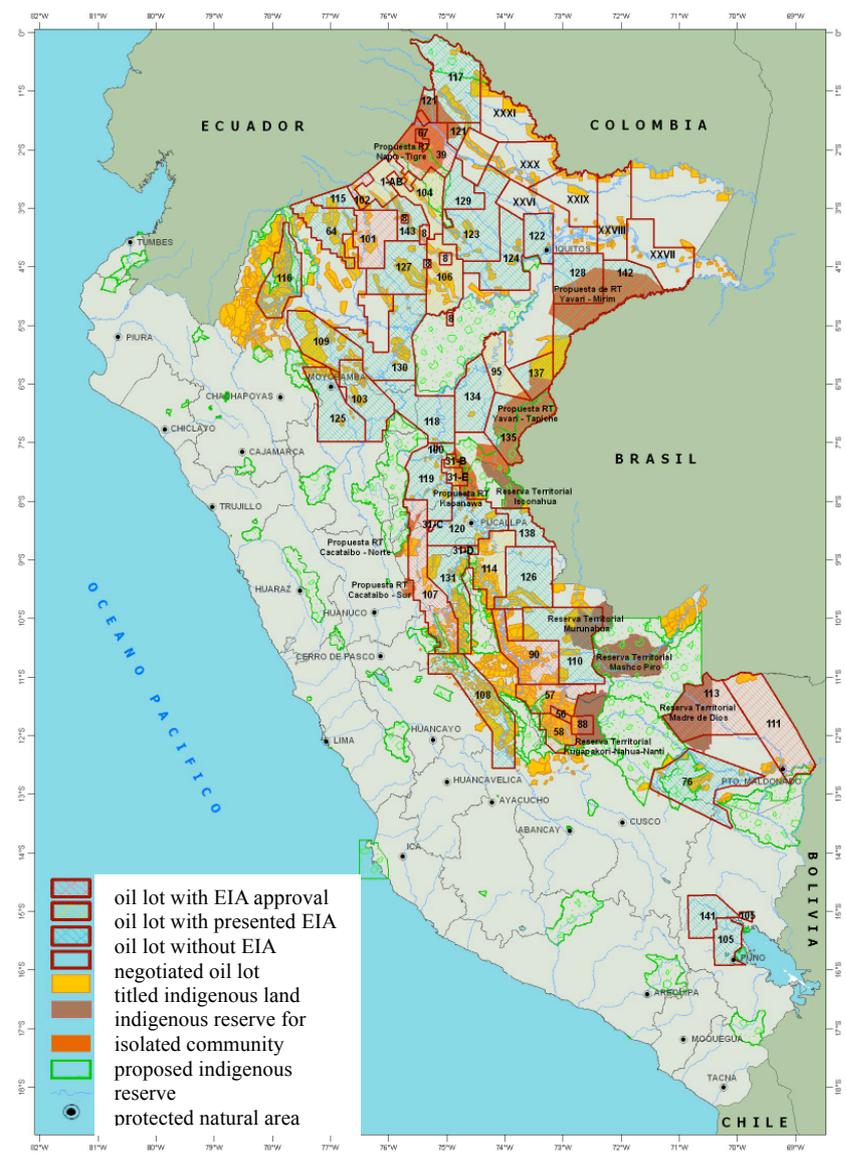


Figure 6.4. Different types of oil lots, indigenous reserves and protected natural areas in Peru (Adjusted from: Quetzal Leipzig, 2010)

<sup>19</sup> Comprehensive data about disturbances caused by oil in Peru is relatively scarce, which limits the amount of resources that I could consult about it. However, as compared to the other cases, I have been able to find some quantitative data to support the argument.

designated for (future) oil activities during the last two years and over 84% has been divided at some point during the past forty years (see figures 6.4 and 6.6). At the beginning of 2009 there were more active concessions than at any other time. Forty-two percent of these concessions were new, with the contracts signed between 2005 and 2009 (Finer et al., 2010:1, 2).

The fact that there are so many new oil concessions has already led to an increase in exploratory activity to search for new oil reserves. As can be seen in figure 6.5 the amount of proven and probable oil reserves has gone up. Since more (probable) oil reserves have been found it is likely that oil extraction will increase with it.

It is expected by researchers that the recent rapid increase of the amount of oil blocks will lead to a new exploration boom, characterized by over 20,000 kilometers of new seismic testing and the construction of over 180 new exploratory wells (Finer et al, 2010:1,4) (see figure 6.7). Along with these activities is expected that the amount of disturbances will increase in the near future.

### Social disturbances

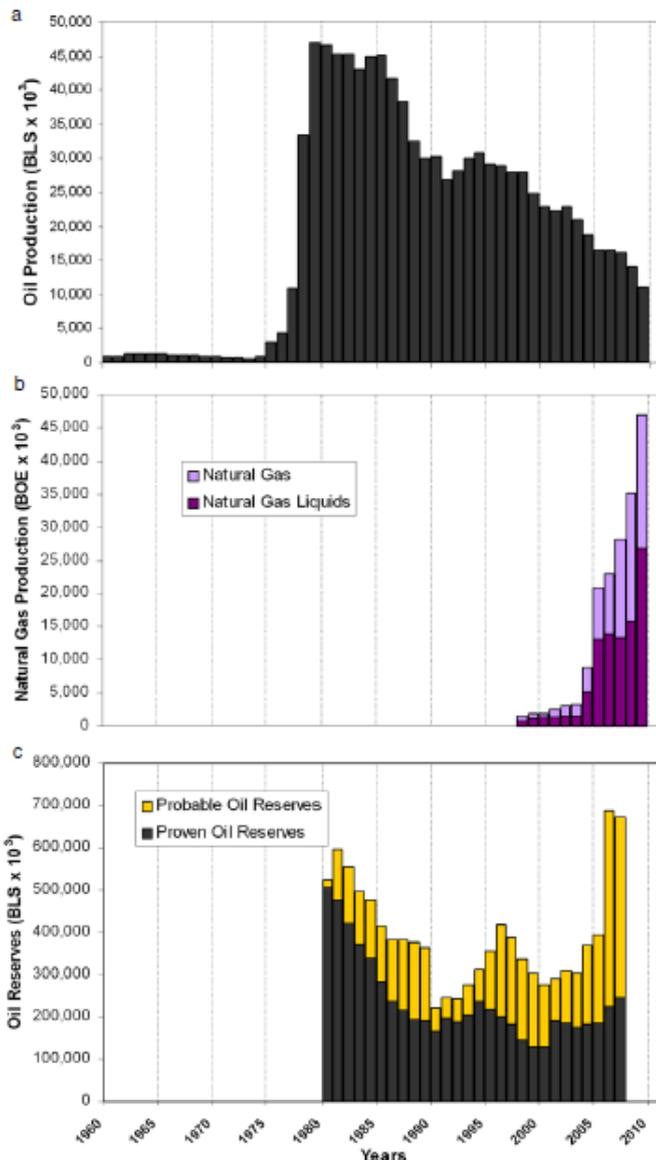


Figure 6.5. Oil and gas extraction and reserves in the Peruvian Amazon. a: production of oil, and b: production of natural gas. c: proven and probable oil reserves (BOE: Barrel Oil Equivalent; BLS: Barrels). (Finer et al., 2010:6)

Many of the current oil concessions overlap with (officially) recognized indigenous territories. One fifth of Peru's protected areas and more than half of all titled indigenous lands of the Peruvian Amazon are covered by oil blocks. The oil concessions currently cover over sixty percent of areas that are territorial reserves for indigenous peoples that live in voluntary isolation from the outside world. These people are not familiar with the 'modern world' and are therefore very vulnerable. Their lack of immunity also makes

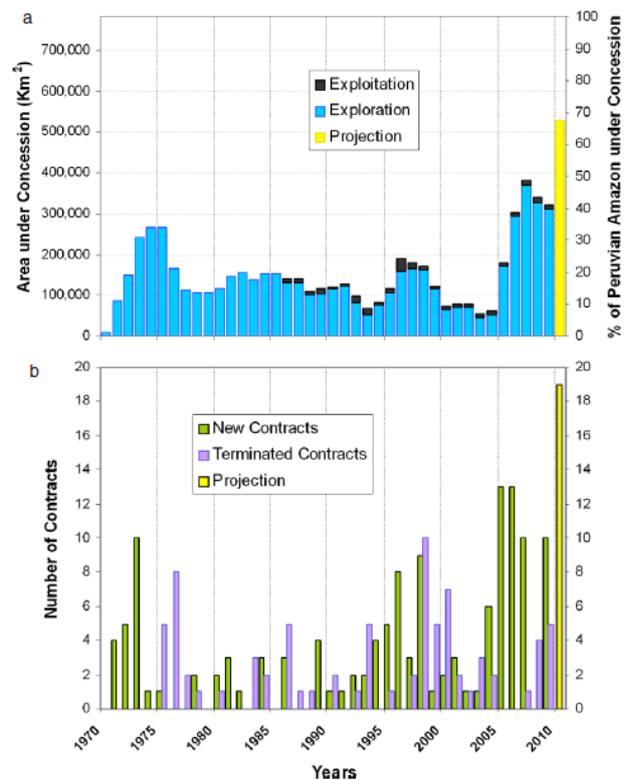


Figure 6.6. Oil and gas concessions in the Peruvian Amazon. a: area and percent of the Peruvian Amazon under concession. b: the number of new and terminated concessions (Finer et al., 2010:4).

them extremely vulnerable to illnesses brought by outsiders (Anaya 2009; Romero 2009, in: Finer et al., 2010:2). The Peruvian government has pursued a colonization policy for different areas in the Amazon region. Since the 1960s, the population of the Amazon region has been growing steadily (Haller et al., 2008:372).

A consequence of the oil activity on indigenous lands is the development of social conflict in the Peruvian Amazon region. For instance in 2008 as well as in 2009, hostile confrontations took place between indigenous groups and the government. Both of these conflicts emerged because the government was selling indigenous lands to oil companies without informed consent of the indigenous groups (Anaya 2009; Romero 2009, in: Finer et al., 2010:2).

When the Peruvian government gives licenses to oil companies, this usually happens without consulting the local population, which will be directly affected by the oil development. This happens despite the fact that consultation of the involved local population about new plans is legally required. Even regional governments are sometimes not informed about the granting of new licenses to oil companies in their own region. Once the oil company has acquired a license, it approaches the involved communities. It then begins its compensation negotiations, which usually lead to more friction. *“Freedom of operation in indigenous territories comes in exchange for basic health, education or sanitation services, in a negotiating process that usually causes divisions both inside and between the communities as they compete for a share of the much needed company resources. [...] Furthermore, the lack of transparency of company revenues creates suspicion among locals that they are not being granted their fair share. In regions where oil and gas developments resulted in significant revenues for local governments, they have not necessarily translated into social improvements for the local population, sometimes due to bureaucratic inefficiencies, other times for political reasons”* (United States Institute for Peace, 2010:2).

Another reason for increased tension and conflict is the fact that the oil companies usually do not (fully) apply modern social responsibility standards in Peru. Standards applied in developing countries are generally more ‘flexible’ but in Peru specifically there is an additional factor involved. Many of the oil companies that are operating in Peru are small and largely unknown outside of South America (Exceptions are Repsol and Petrobras). Some of the companies are family owned and are not publicly listed. They are less vulnerable to potential negative effects of social conflicts to their image, and therefore oftentimes choose to not apply (all) internationally recognized social and environmental standards (United States Institute for Peace, 2010:2,3).

#### Environmental disturbances

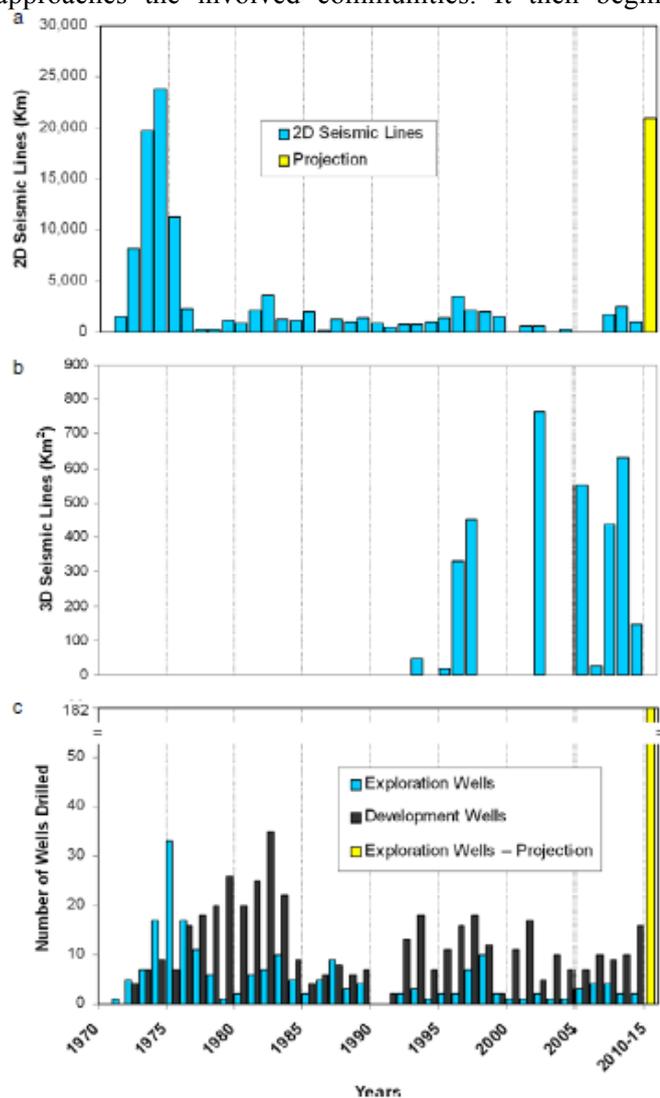


Figure 6.7. Oil and gas exploration and exploitation activities in the Peruvian Amazon. a: level of 2D seismic activity, b: level of 3D seismic activity, c: number of exploration and development wells drilled. (Finer, 2010:6).

Oil development in Peru takes place in the Amazon region of the country. The Peruvian Amazon is the second largest land area of the Amazon Basin after Brazil and is a region of high ecological diversity and significance. Its biodiversity is even marked as one of the highest on earth and it still contains large, relatively untouched areas of primary rainforest (Oliveira et al., 2007; Nepstad et al., 2008, in: Finer et al., 2010:2).

Oil development in Peru does not have the same magnitude as in other three countries under study yet, and therefore has caused smaller scale environmental disturbances. However, oil-related environmental disturbances are increasingly taking place. During the extraction of oil, pollution is one of the main ecological disturbances that occur. Several incidents have been described of serious pollution of rivers, lakes and soil due to oil spills (Peruvian Times, 2008; BBC News, 2008 (1)). The pollution greatly decreases the living conditions of the indigenous groups affected by it and causes health problems for them. Many indigenous leaders cite the environmental and health impacts associated with oil activities as one of the predominant factors behind their opposition activities (Finer et al., 2010:2). An example of this can be found in box 6.1.

Furthermore, over the past forty years, almost 104,000 kilometers of 2D seismic lines have been cut through the Peruvian Amazon. Seismic tests are done to locate oil reserves in the ground. During the seismic exploration of an area, series of detonations are carried out. Around 3,400 square kilometers of land have been affected by the explosives used for 3D seismic testing (see figure 6.7). These large explosions disturb and destroy soil, water, and wildlife and open up routes for outsiders to enter the Amazon region. The seismic lines have directly impacted more than one quarter of the Peruvian Amazon. Between 1972 and 1975 an extraordinarily high level of seismic testing took place, which accounts for more than half of all known seismic lines for 3D seismic testing. Projections for the near future show that an immense increase of seismic testing is coming up soon (Finer et al., 2010:6; Haller et al., 2008:392).

#### Box 6.1. Pollution in an Achuar community, San Cristobal

Indigenous groups living in the Amazon region of Peru face serious problems caused by oil pollution. The following quotation focuses on problems an indigenous Achuar tribe faces in San Cristobal,

*“In villages like San Cristobal, the indigenous Achuar people believe their maladies are caused by exposure to oil. They suffer fainting spells, vomiting, chronic diarrhea, headaches and skin infections. Isac Sandy, 25, is tall and shy, and got married last year. He has frequent headaches, and every other day he gets an injection to relieve the symptoms of an unknown skin condition. If he doesn't get the shot, his skin breaks out in a spotty white rash, and his entire body swells. ‘There's a stream where we always go to fish, and it's always had oil on top. We catch fish there and eat them. The fish drink the water, and since we eat them, the oil must get into us that way,’ he says.” [...] “A Peruvian government study published in 2006 found that most indigenous people living along this river -- the Rio Corrientes -- had unhealthy levels of lead in their blood and 95 percent exceeded the healthy limit for cadmium. Lead and cadmium are associated with oil spills, which have been happening here for decades. Whether the cause of these health problems is oil spills, other changes brought by outsiders, or a combination of the two, the Achuars' quality of life has worsened since oil companies arrived and little is being done to help them” (SCPR, 2010).*



This is Ana Hualinga, who is a local leader of the Achuar people in San Cristobal, Peru. She is standing in a former community garden and tree nursery. According to her this land was recently cleared by the oil company Pluspetrol, without consulting the community (SCPR, 2010).

## Economic disturbances

There is little data available on the economic disturbances that oil development has caused for indigenous people in Peru. Hall et al.'s (2006:200-213) research indicates that at least during the last two decades, the majority of the indigenous people in Peru have been living in poverty. Between ten and fifteen percent of them have even been living in extreme poverty. Furthermore, there is a large poverty gap between indigenous and non-indigenous people, with poverty numbers for indigenous people being substantially higher than for non-indigenous people. But to what extent is this poor economic situation many indigenous people find themselves in related to or caused by oil development? I have found no studies focusing directly on this specific topic.

However, there is evidence showing that due to oil pollution, deforestation, and the opening up of the Amazon with roads, the livelihoods of certain indigenous groups have been affected. Self-sufficiency has become more difficult or impossible for these groups. Not only have the products from nature that these people use for their own consumption been disappearing or becoming of lesser quality, this has happened with the things they sell outside of their community as well (e.g. BBC News, 2010, Amazon Watch, 2010 (3)). For example, because their lands have become accessible for intruders due to the creation of oil infrastructure, the Yugua people now can do nothing but watch poachers come onto their lands. These poachers kill so many animal species that the Yugua struggle to feed their own families, let alone sell any of the remaining bush meat to outsiders (BBC News, 2010). A report (Goldman et al., 2007) focusing on five Achuar communities indicates that due to the destructive activities of the oil company Oxy Petroleum, the Achuar's farms are less productive, and the areas that are available for cultivation have been reduced significantly. The soil and rivers are polluted, and fish and wildlife are sick and disappearing. The Achuar struggle to gather enough food for their own consumption, and their economic opportunities are decreasing as well. It is certain that oil activities have caused the negative economic effects just described, but I cannot give an accurate indication of the magnitude of the situation.

Furthermore, the indigenous people in Peru cannot take economic advantage of the land rights that they have. Although many communities have legal land title to (parts of) their ancestral lands, these land rights are of no value when other interests such as oil are at stake. According to the Peruvian economist Hernando de Soto (BBC News, 2010), the fact that indigenous land rights are not acknowledged when oil development takes place, prevents the bad economic situation indigenous people are in from improving. Despite the fact that several indigenous groups legally are the owners of their territories, they cannot obtain an economic profit when resources like oil are extracted there. His argument is laid out further in box 6.1 on the next page.

### Box 6.2. Property rights as an economic stimulus

*“Two small fish wrapped in banana leaves and six plantains. This is what Lorena has to feed her six youngest children. Next to the open fire in her tidy wooden kitchen is a wooden receptacle. Lorena uses this for pounding cassava to make a drink called Masato. But it is scrubbed clean. There is no cassava. Lorena is struggling to feed her family. [...] The indigenous Yagua community of Santa Ursula lies on the Oroza river, a tributary of the Amazon in Peru's far north-east. It is four hours by fast boat from the nearest large town, Iquitos. Around 150 people live in Santa Ursula, but there is an absence of young faces. Many - like Lorena's older children - have left to try their luck in the towns”.*

*“Hernando de Soto believes modern property rights are the key to propelling communities like Santa Ursula out of poverty. ‘They need what the rest of us have - clear property rights over what they own, so that they can get credit and capital, and so that there's no discussion over who owns what. And the second thing they need is organization. You can do business with an organization, you can't do business with a tribe.’ In Santa Ursula the Apu - the leader - carefully unfolds a photocopy of the community's land title. Attached is a map showing their demarcated territory. It is a communal land title, issued according to the law that gave recognition to Native Communities in the Amazonian region. But Hernando de Soto says this law has isolated them from the global economy. ‘It doesn't make them part of the system. I'm sure the title was given to them with the best of intentions, but there are restrictions,’ he says. ‘It's communal, they aren't recognized as private individuals. It's like a telephone that only connects to one other telephone, while your telephone connects to 6bn other telephones.’ [...] In Santa Ursula people say they want to be paid a fair price for their goods so they can spend that money on education, and western medicine. ‘What's the point of owning the land if we can't control it?’ asks Lorena. The Yagua of Peru are unable to enforce the rights they already have. Could modern property rights change that? Hernando de Soto certainly thinks so” (BBC News, 2010).*



Many of the indigenous people that move to the city in search of a better life, like this man in the city of Iquitos, end up living on the streets, trying to find food in the garbage that other people have left behind (BBC News, 2010).

I acknowledge that, based only on the little amount of information that is available on the economic disturbances for indigenous people in Peru caused by oil development, I unfortunately cannot provide the reader with a complete picture on this topic.

## 6.4. RESILIENCE AND THE IMPACT OF THE OIL BOOM

In this part of the chapter I will try to determine what impact the oil boom in Peru has had on its indigenous people, and how their resilience has influenced this impact. In the next section the resilience of the indigenous population will be described, following the resilience factors and their related proxy indicators that have been created for this research project. In the second section I will analyze to what extent the resilience of the indigenous people has been able to lessen the negative impact of the oil boom.

### 6.4.1. Resilience of the indigenous population

#### 6.4.1.1. Resilience factor 1. Institutional diversity

Proxy indicator a: The creation of new institutions and their diversity

Indigenous movements in Peru have been described by different scholars as ‘largely nonexistent’, a ‘profound failure’, and ‘marginal’ (Garcia, 2005:5). Indeed, in Peru, hardly any sustained indigenous mobilizing has taken place that is comparable to the mobilization that has taken place in several other South American countries. Where indigenous organizations did emerge in Peru, they oftentimes disintegrated, and in some cases they have disappeared completely over time. Most of the organizations that do exist today operate on a small-scale level and generally do not have deep ties to society. There are also only few links between the different organizations. Most of the organizations that did emerge operate on a local level, and there are hardly any regional or national indigenous organizations. The ones that were created have demonstrated little capacity for mobilization (Yashar, 2007:22).

Literature gives us different explanations for the lack of indigenous mobilization. I will describe two main factors that have hampered the development of indigenous organizations. Firstly, some scholars argue that the idea of having an indigenous identity or to create indigenous movements has been suppressed historically by the emphasis on class identities and discourses. According to this view, indigenous people are continued to be classified by social programs and class-based labels, as has been done throughout history. Juan Velasco Alvarado, who was president in Peru in the 1970s, even prohibited the use of the term ‘Indian’, promoting instead the labeling of indigenous people as ‘peasants’. The state penetrated indigenous communities, undermined their ethnic identification and tried to modernize them according to Western ideals (Garcia, 2005:7; Yashar, 2007:232). Secondly, it is argued that the civil war that took place in the 1980s caused a lack of political opportunity and capability to build organizations representing different communities. The violence and repression expressed towards citizens by the guerillas as well as by the government impeded the creation of new organizations to a large extent (Garcia, 2005:7-8).

Furthermore, next to the just described limiting factors, only where three enabling factors came together, did indigenous movements actually have a chance to develop. These are changing citizenship regimes that challenged local autonomy, trans-community networks, and the presence of supporting political networks and political associational space. These factors generally have not come together in Peru, since political

#### Box 6.3. FENAMAD.

FENAMAD is one of the few regional Peruvian indigenous organizations that represents and helps different indigenous communities.

*“The Federación Nativa del rio Madre de Dios y Afluentes (FENAMAD) is a democratic alliance of various indigenous groups in the Madre de Dios Department. It was founded in 1982 by the Harakmbut with the objective of defending the rights of the indigenous. This involved demanding indigenous land rights from settlers and other newcomers as well as the right to self-determination. Coordination between individual ethnic groups became necessary to counter isolation and to be able to better represent common interests. In 1985, 46 representatives from 13 comunidades, or communities, attended the third FENAMAD congress. [...] FENAMAD pursues the following objectives: it extends support to groups that do not yet possess land titles. It also attempts to shield groups, especially the Pano, which do not wish to have any contact with the outside world. FENAMAD has supported the creation of a reserve for this purpose, for which it has prepared documentation. It has also demanded the creation of a Reserva Communal Amarakaeri, a communal reserve for the Amarakaeri (or Arakmbut). Another key objective of the organization is to improve healthcare; it also wishes to promote traditional medicine. Lastly, the organization has demanded access to school education. FENAMAD organizes information courses on the relevant laws in Peru, since many indigenous groups in the region lack this knowledge” (Haller et al., 2008:395).*

associational spaces have generally been elusive and community networks have been weak. This situation

has worked against indigenous organizing beyond the local level (Yashar, 2007:55).

However, despite the absence of large mobilizations and the presence of many limiting factors, some institutions focused on the rights and needs of indigenous people in Peru and their relation to oil have still managed to develop over the years. Examples of these are the Native Federation of Rio Madre de Dios and Tributaries (FENAMAD) and The National Coordinator of Communities Adversely Affected by Mining (CONACAMI) (see boxes 6.3 and 6.4 for descriptions of the organizations). As compared to most Peruvian indigenous organizations, these two organizations have been relatively successful and are part of relatively well-organized networks (Garcia, 2005:58-60; Yashar, 2007:22).

#### Box 6.4. CONACAMI.

The constitutional reforms that gave the oil industry (as well as other extractive industries) the possibility to expand their activities have already had disastrous consequences for many indigenous groups. Communities have been displaced, productive agricultural lands have decreased, and water and soil have become polluted. Furthermore, indigenous communities have not received any economic profit from the extractive industries. These developments created an impulse to form the National Coordinator of Communities Adversely Affected by Mining (CONACAMI). Already in the mid-1990s Miguel Palacín, the president of CONACAMI, began to organize protests against the negative effects the extractive industries had on indigenous people in Peru. As a response, Palacín was accused of criminal activity by the Canadian mining companies he was protesting against. Palacín was forced to go into hiding, until unexpected help came from Canada. In the realization that organization is the only way forward, he joined forces with indigenous organizations in Canada, with which he set up a framework to bring communities from all over Peru together. In October of 1999 CONACAMI held its first congress, and Palacín was elected president of the organization (Garcia, 2005:58-59).

CONACAMI tries to unify the different indigenous communities in Peru affected by the extractive industries. Next to focusing on the subjects of mining and oil, more recently the organization has also started to focus on broader topics such as indigenous rights and the preservation of indigenous culture. The organization is becoming more visible in Peruvian society and many recognize it as the most coherent and influential indigenous organization in Peru. CONACAMI has also attracted some attention beyond Peru. The organization now receives some international funding, works together with international organizations such as Oxfam America, and has created exchange programs with other South American indigenous organizations. CONACAMI is now also playing a role in the creation of a new organization, called the Permanent Coordinator of the Indigenous People of Peru (OPIP). This organization is hoped to become what has thus far been absent in Peru: a national organization linking *all* indigenous groups in the country. However, operating this new organization on a national level has hitherto been challenging (Garcia, 2005:59-60).



Representatives of CONACAMI participating in an indigenous protest march in Puno, Peru in May of 2009 (CONACAMI, 2010)

Thus, although the indigenous population of Peru has the highest ethnic diversity of all four countries its

institutional diversity is low. Only few organizations have developed over time, and of the ones that did, most remained small, poorly organized and mostly operating on a local level. Furthermore, the links amongst these indigenous organizations are weak. However, a few organizations have recently emerged that show hopeful signs that the Peruvian indigenous movement might gradually become stronger.

#### Proxy indicator b: Linked secondary institutions

The Peruvian indigenous movement itself is rather weak, and so are its links with secondary institutions. The existing indigenous organizations do not have strong ties to the Peruvian government. When opportunities for economic profit and indigenous interests collide, the indigenous people can expect that the government will mainly focus on maximizing profits. Despite the fact that laws exist -once created by the government itself- that provide the indigenous population with legal rights to their lands, the government ignores these when oil development is possible. Thus, the Peruvian government can generally not be considered as an ally of the indigenous population, especially when oil development is involved.

The indigenous organizations also have few links with national environmental NGO's. During the last two decades, a national network of several environmental NGO's in Peru has been pressuring the policy of the government and oil companies. These organizations oftentimes join forces to attain their goals. However, these NGO's mainly focus on technical and ecological aspects of environmental protection and are ignoring indigenous concerns. They therefore generally do not collaborate with indigenous organizations (Haller et al., 2008:239). The environmental NGO's are quite influential and successful in Peru, especially compared to most indigenous organizations. They have been granted nature reserves, while indigenous communities are ignored when they demand title to their ancestral lands. The success of the environmental NGO's is mainly due to their well-developed (international) network, their modern communication technology and transportation means, and their experience in the processing and spreading of information (Haller et al., 2008:399). These assets are generally missing in indigenous organizations. Nonetheless, despite the lack of cooperation between indigenous and environmental NGO's, the achievements accomplished by these NGO's can in some cases be profitable for indigenous people as well. If an environmental NGO manages to prevent oil drilling in a certain area in the Amazon region for ecological reasons, the indigenous people living there can still profit from this achievement.

Important allies of the indigenous population of Peru can, however, be found in international actors like NGO's and multilateral development agencies. Their efforts have been quite numerous. The Inter-American Development Bank, The World Bank, and the UN Development Program have institutionalized special programs for the indigenous population of Peru. Furthermore, the UN, which also has a Working Group on Indigenous Populations, has passed several declarations focused on indigenous people's rights and the ending of cultural ethnocide and genocide. International organizations have financially supported various projects in Peru and have helped to bring attention to certain indigenous issues in politics. International pressure has for instance forced President Fujimori to put bilingual education back on the agenda. This valorized indigenous languages and enhanced the capacity of the indigenous population to become more autonomous actors in Peruvian society (Garcia, 2005:52-52,71). Another example of the influence of international organizations is that the pressure from the international NGO Amazon Watch has forced Occidental Petroleum to withdraw from drilling in an Achuar territory in Peru (Amazon Watch, 2010 (4)). Two descriptions of different types of NGO's supporting indigenous people in Peru are described in box 6.5. The successes that have been made should largely be attributed to proactive and well-organized initiatives of the international actors, and not so much to the actions of indigenous movements themselves, however. The network of international organizations supporting the indigenous people in Peru consists of many well functioning organizations that have access to many resources and are part of a well-developed international network. The indigenous groups in Peru do not have these same characteristics and their resources to set up projects on their own are very limited. They cannot be seen as equal partners to these organizations; instead, they are dependent on them. The indigenous people of Peru are very fortunate to have international allies that have carried out some of these tasks for them.

Thus, within Peru the indigenous movement has few ties to other relevant networks and organizations. A reason for the absence of ties with other Peruvian organizations seems to be the lack of the organizational capacity of the indigenous movement itself. However, there is an international network of organizations that aims to improve social and ecological conditions for indigenous people in Peru. The indigenous movement

can greatly benefit from the network and resources this international network can provide.

Box 6.5. International NGO's: CATAPA and Amazon Watch.

CATAPA

CATAPA stands for the Comité Académico Técnico de Asesoramiento a Problemas Ambientales, or the Technical Academic Committee for Assistance in Environmental Issues. CATAPA was founded in 2005 in Belgium. The organization consists of a network of about a hundred volunteers that raise awareness, network, research, and lobby to create better social and environmental conditions in regions of Peru, Bolivia and Guatemala where mining and oil drilling take place (CATAPA, 2010 (1)). For instance, during the violence between the Peruvian government and indigenous people in June of 2009, CATAPA representatives went to the conflict area. They gathered evidence of the violent force used by the security forces towards a peaceful protest held by indigenous groups protesting the policies for the extraction of natural resources of the state and the international companies operating in Peru. The CATAPA representatives took photographic evidence of the violence and of indigenous people that were killed and they interviewed eyewitnesses. They created press releases about the events that reached several media outlets and published the photos on different websites (CATAPA, 2010 (2)).



Indigenous protester being beat up by members of the security forces. Photo taken by CATAPA representatives in June of 2009. (CATAPA, 2010 (3)).

Amazon Watch

Amazon Watch is a US based non-profit organization that has the aim to protect the rainforest and advance the rights of indigenous people that live in the Amazon Basin. The organization cooperates with indigenous and environmental organizations in different South American countries to set up campaigns to improve human rights, the preservation of the Amazon's rainforests, and corporate accountability (Amazon Watch, 2010 (5)). During the last years, Amazon Watch has had a number of successes in Peru. It has increased the capacity of indigenous groups to defend their rights to their ancestral lands, it pushed Pluspetrol to sign an agreement to end its dumping, it thwarted oil development in several indigenous territories, and even forced one oil company, Occidental Petroleum, to completely withdraw from an oil site located in an Achuar territory (Amazon Watch, 2010 (4)).

Proxy indicator c: Diversity of resources/means

As we have already seen in the previous chapters, a diverse set of resources and means can give indigenous groups more policy options and flexibility towards changes. A first means that I will discuss is political influence.

Political influence

Throughout history, the political influence of indigenous people in Peru has been weak. From 1860 to 1979, the constitution prohibited illiterate Peruvians to vote. This meant that the majority of the indigenous population did not have voting rights (Maritza, 2008:6). During the last four decades, important political progress has been made for the indigenous population of Peru. Indigenous people have been freed from the hacienda system, which controlled indigenous laborers and deprived them from their basic rights as members of the Peruvian society. However, although indigenous people have obtained the right to vote as well as the

right to run for elected and appointed office, indigenous representation in politics has remained low during the last decades. Despite the fact that thirty-eight to forty-seven percent of the population in Peru is indigenous, their representation in government bodies has been negligible. Between 1968 and 2008, only one percent of all appointed ministers was indigenous, and none of the vice-ministers in education, agriculture or interior have ever been from indigenous descent. Furthermore, within this same period of time, on average only around five percent of the judges and prosecutors were indigenous, with indigenous people concentrated in the lower ranks of the judicial hierarchy. Thus, despite the progress that has been made on paper, in practice the state as well as the judicial system remains led by whites and upper-middle class mestizos (Maritza, 2008:4, 11-13; Yashar, 2007:323-235).

According to Maritza, (2008:25-26), the lack of indigenous organization and the lack of indigenous influence in politics are related. Maintaining and expressing one's ethnic identity in a society in which indigenous culture and practices have been seen as backwards for a very long time has been challenging for indigenous people. In an environment of discrimination and humiliation, self-organizing as well as the creation of channels to express one's demands through politics is less likely to occur.

Indigenous people also receive little support from the government when it comes to their opposition towards oil development. As we have already seen, the Peruvian government puts economic interests before indigenous people. The indigenous rights laid out in the constitution are ignored when oil development is possible. Furthermore, in many cases the indigenous groups are not even informed about the government's plans. The government provides its indigenous population with hardly any information about its plans and policies for new oil development. Furthermore, it tries to keep indigenous groups out of the negotiations for exploitation concessions and production contracts (Haller et al., 2008:239).

Thus, although indigenous can now participate in Peruvian politics, they hardly have any political influence. Furthermore, the government does not support indigenous interests when oil development takes place in indigenous territories.

#### Legal means

During the last decades, laws have been created in Peru that are favorable to its indigenous population. In 1974 a law concerning indigenous communities, which is called the 'Ley de Comunidades Campesinas y Nativas', was created. With this law, the rights of indigenous groups were defined for the first time. In 1989 Peru also ratified the ILO Convention 169, which strengthened and extended the fundamental legal rights that indigenous people have, as well as their right to own land and to self-determination (Haller et al., 2008:347). The Peruvian government has issued 1,232 land titles to indigenous communities living in the Amazon and has also created five territorial reserves for the protection of indigenous peoples that live in voluntary isolation. However, despite these developments a large part of the Amazon region and its indigenous territories are now covered by active or proposed oil concessions. Of all the areas that have been designated as nature reserves or indigenous lands, only thirteen national parks and sanctuaries are strictly off-limits to oil exploration and exploitation (Defensoría del Pueblo 2006; Benavides 2009, in Finer et al., 2010:2).

The Peruvian government also created laws to protect the environment and it signed the Rio Convention on Biological diversity. These laws would provide indigenous people with a legal backing to protect their ecological systems. For instance, a 1993 reform of environmental law concerned strict environmental regulations for the oil and gas industry, which are on paper positive for the protection of indigenous territories. The regulations were designed to limit the social and ecological impact of the industry. The procedures that oil and gas companies have to follow according to this new Peruvian law are even more stringent than the ones that are normally applied in the U.S. One of the procedural steps the oil companies have to take is that they have to execute an EIA and consult affected indigenous groups before they can get approval for new projects. However, reality is different. Indigenous groups are usually not, or poorly informed about planned oil activities and they are not involved in the EIAs. (Haller et al., 2008:374).

On paper, the 1993 reform, as well as the other environmental laws, are promising for indigenous people. However, the implementation of these laws has been very problematic, and the ecological systems of which indigenous people are part are not adequately protected. When other interests are involved, such as the

economic interest to extract oil, the laws concerning the protection of indigenous people and the environment are usually ignored. Instead, the government focuses on the Basic Law on Hydrocarbons and the Law for the Growth of Private investment (Haller et al, 2008:374). Contradicting all previously created laws concerning indigenous rights and environmental protection, in 2003 the Peruvian state also decided to grant the international oil industry carte blanche access to the Peruvian Amazon region for oil development, regardless of indigenous ancestral lands. For this decision the government did not consult or inform the indigenous people affected by it. This situation is perceived as a violation of national and international indigenous rights (Amazon Watch, 2010 (1); Amazon Watch, 2010 (2)).

Thus, although several important laws have been created by the Peruvian government in favor of its indigenous people and treaties have been signed, these acts have little or no significance in practice. It is shown once again that, with regard to the government policy concerning the extraction of oil and other resources, the economic interests clearly prevail over indigenous rights and environmental protection, despite the laws that have been created about these issues.

### Monetary income and human capital

A third group of resources I will now discuss consists of monetary income and human capital. In Peru, the per capita income of non-indigenous people is almost double that of the indigenous population. The difference in income is largest in urban areas, but even in rural areas the income of non-indigenous people is about forty percent higher than indigenous income. A study by Patrinos & Skoufias (2007:10) shows that for both rural and urban Peru around forty percent of the difference in income can be attributed to differences in endowments (education, private assets, access to public services, etc.).

Furthermore, the number of people living in poverty is significantly higher for indigenous people as well (see table 6.1).

Year	Total population	Indigenous	Non-indigenous
1994	45,2	62,3	40,1
1997	41,8	61,4	36,4
2000	46,5	62,8	43,0

Table 6.1. The percentage of households living in poverty in Peru between 1994-2000 (Hall et al., 2006:201)

Furthermore, the difference between the amount of indigenous and non-indigenous people in extreme poverty is even higher, as can be seen in table 6.2. Thus, in terms of financial means indigenous people in Peru are very limited, and are relatively in a worse situation than non-indigenous people.

Year	Total population	Indigenous	Non-indigenous
1994	14,7	28,6	10,9
1997	11,4	24,7	8,6
2000	11,7	22,2	9,5

Table 6.2. The percentage of households living in extreme poverty in Peru between 1994-2000 (Hall et al., 2006:201)

Research shows that especially the access to human capital, particularly in terms of education, health, improved employment opportunities, and wages are essential to alleviate poverty in indigenous households (Hall et al.,2006:13, 17, 19-20). However, these are the exact areas in which indigenous people are disadvantaged. On average indigenous people in Peru have only attained 4,3 years of formal education, versus 6,9 for non-indigenous people (also see section about knowledge).

As we can see in table 6.3, indigenous people have less access to public and private services such as potable water and sanitation services. The presence of these services, especially the access to potable water, can improve the lives of the people using them, creating a safer, healthier living environment. However, some of

these services (e.g. access to a telephone) might be of less importance to certain indigenous groups due to their secluded lifestyle.

	Indigenous	Non-indigenous	All	Rural	Urban
Potable water	52,5	66,1	61,8	35,4	75,9
Electricity	60,9	74,3	70,0	27,5	92,7
Telephone	10,5	26,7	21,5	0,3	32,8
Sanitation services					
Private	29,6	53,4	45,8	4,1	68,0
Shared	2,9	2,3	2,5	0,5	3,5
Pit	8,6	7,6	7,9	11,3	6,1
Latrine	22,3	19,7	20,5	36,8	11,9
None	36,6	17,0	23,3	47,3	10,4

Table 6.3. Percentage of households with access to public and private services for indigenous and non-indigenous people in Peru, 2001 (Hall et al., 2006:217)

When it comes to health and healthcare, there is only very limited data available. According to Hall et al. (2006:216), there is little difference between the self-diagnosed health status of indigenous and non-indigenous people. There is data available about the possession of health insurance, however. A slightly larger percentage of the non-indigenous people have health insurance in 2001 (see table 6.4).

	Total population	Indigenous	Non-indigenous
Public insurance	41,6	39,7	42,4
Private insurance	2,2	1,1	2,8
Public and private insurance	1,0	0,3	1,4
No insurance	55,1	58,9	53,4

Table 6.4. Percentage of households in possession of health insurance by indigenous and non-indigenous people and the population as a whole in Peru, in 2001 (Hall et al., 2006:217)

It has become clear that when it comes to monetary income as well as access to human capital, indigenous people in Peru are very limited.

Proxy indicator d: Diversity/ flexibility of management and policies

The indigenous population of Peru is better able to respond to the disturbances that are caused by oil development when their policies and management practices are diverse and flexible towards change. In this section I will discuss their usage of several strategies for dealing with oil development.

#### Protesting and marches

A strategy that has been very powerful for indigenous people in other countries is to (peacefully) protest government of oil company policies. However, for the Peruvian indigenous population it has proven to be difficult to organize large-scale demonstrations without a well-organized trans-community network. According to Haller et al. (2008:395), indigenous groups have indeed realized that if they really want to become more influential and effective, they have to organize themselves better. However, a few protest marches have taken place during the last years (e.g. Dudenhoefer, 2010; CATAPA, 2010 (2); Gedicks, 2001:36). A recent protest took place in 2009 to bring attention to a new law. However, the protesters were attacked by security forces, with many indigenous casualties as a result. Instead of getting attention from the

national media about their problematic situation, the indigenous people were portrayed on the news and in the papers as savages (see box 6.6). The dramatic events that have taken place might discourage indigenous groups from attempting peaceful protesting in the future.

#### Box 6.6. Peaceful protest turns into massacre

Earlier in this chapter an indigenous protest was described that turned into a massacre. Starting in April of 2009, several indigenous groups protested against new laws that would allow even more oil drilling, mining, logging and agriculture in the Amazon region of Peru. Indigenous people sought attention for their struggle by peacefully occupying several roads, waterways and oil pipes. Two months later on the fifth of June, around 600 members of the government's security forces and helicopters attacked a group of indigenous protesters near Bagua. At least twenty-five indigenous people were killed and over 150 were injured. Members of the affected indigenous community state that at least forty people, including three children, have been killed by the security forces. According to eyewitness testimonies, the security forces fired live ammunition and tear gas at the group of protesters (Democracy Now, 2009; CATAPA, 2010 (2)).

Gregor MacLennan, a member of Amazon Watch, describes the events that took place. *“What resulted seems to be—appears to be a total massacre. I was speaking to a local leader who talked about how they had got down on their knees and held their hands up, and the police had fired straight into their bodies as they asked for them not to shoot. What followed then was—seems to be a series of running battles along the road as the indigenous people tried to flee into the hills and flee back to the town of Bagua Chica, as the police continued to fire tear gas from helicopters and from the ground and fire live bullets from the helicopters and from the ground. And people talk about how they were aiming at their bodies and shooting to kill. I’ve just been listening to some audio reports, of hearing the police shouting, “Shoot them in the head! Shoot the dogs in the head!” as they ran for cover”* (Democracy Now, 2009).

During the clash, several members of the security force died or got injured. In the Peruvian media, these were the only deaths and injuries that were mentioned. The indigenous casualties were left out of the picture, and instead, they were portrayed as savages. Only reports and photographs gathered by international actors, media and NGO's are showing the story of the indigenous people (CATAPA, 2010 (2); Democracy Now, 2009). Gregor MacLennan explains: *“What is very noticeable here, nobody here in the local towns—there are many local townspeople here—is afraid of the indigenous, and nobody has seen any indigenous people with guns. Everyone here is very afraid of the police. They’re very afraid of the government. People are afraid to speak, because they’re seeing the huge manipulation of information, and they’re worried what will happen to them when they recount what happened and the message starts to get out”*. *“Peruvian President Alan Garcia defending the police actions against indigenous protesters last week. Over the weekend, Garcia, a free trade advocate, said 40,000 natives did not have the right to tell 28 million Peruvians not to come to their lands. Anyone who did so, he warned, would lead Peru into, quote, “irrationality and a backwards primitive state”* (Democracy Now, 2009).



Security forces attacking indigenous protesters. Photo taken by CATAPA representatives in June of 2009. (CATAPA, 2010 (3)).

## Physical display of power/violence

A strategy that has been used by some indigenous groups to attain their goals is the physical display of power or even the use of violence. In a few cases this has led to the desired outcomes. Violence as a strategy to defend one's territory was used on a large scale by indigenous people in the past, especially against the Spanish invaders (e.g. IGWIA, 2010). However, only a few cases of violence as a way to defend one's territory against oil development are known (e.g. Garcia, 2005:44-45). Box 6.7 provides us with an example.

### Box 6.7. The Achuar, shotguns, and spears

The Achuar live in the northern part of the Peruvian Amazon. Almost forty years ago oil companies were given access by successive governments to test and drill in the Amazon. This had a large negative impact on the lives of the Achuar. Their lands became polluted, and the condition of their livelihoods, as well as their general health status, has worsened.

Traditionally the Achuar resolved disputes with other tribes in tribal wars with their neighbors. Probably for this reason, in October 2006, they occupied and held oil wells of Pluspetrol. This happened peacefully, yet armed with shotguns and spears. This action caused the government and the company to lose millions of dollars a day. In this way they were forced to come to the negotiating table. After the negotiations the Achuar received a commitment from Pluspetrol to reduce contamination and to pay millions of dollars to clean up and establish a ten-year health plan (BBC News, 2008 (1)).



An Achuar elder named Pitiur Unti Saant with his shotgun at a community meeting about oil development (CBC News, 2010).

## Attracting media attention

The Peruvian indigenous movement has not been very successful at creating strong communication links with the (international) media as a means to pressure the government and oil companies to change their policies. According to Haller et al. (2008:408), the lack of communication to the outside world has proved to be a significant disadvantage for the indigenous groups in Peru. The reason for this is the previously mentioned poor organization of the movement and a lack of access to means of communication.

The NGO's and other international actors that support the indigenous cause have taken over part of the task of attracting media attention. They have written numerous reports, books, videos and even specific press releases that are available to the international media (for press releases, see e.g. Amazon watch 2010 (6); CATAPA, 2010 (2) ). In this way, the indigenous people can still receive some attention in the media that can be helpful to their cause.

The previous paragraphs have shown us that the strategies the Peruvian indigenous people have been using to deal with oil development have not been very diverse or successful. At the moment, they are greatly depending on international organizations for support for their cause. In order for them to become more powerful, they will have to first start with organizing themselves better. Only then can they come up with strong strategies that have a higher chance of being successful.

### 6.4.1.2. Resilience factor 2. Knowledge

For this second resilience factor, I will look at the transfer of knowledge as well as the diversity of the types of knowledge that are used.

Proxy indicator a: Transfer of knowledge

For this aspect of resilience I will investigate to what extent knowledge is spread within the indigenous population.

By the 1900s, several indigenous groups expressed their need to learn Spanish as a step to become more involved and influential in Peruvian society. They demanded the right to education, to become able to read and write, and to have schools in their communities. However, not much changed for them until the 1970s (Garcia, 2005:88). A statement from a Quechua farmer:

*“Because we are Quechua, because we speak our language and live according to our customs, and because we don’t know how to read and write, we live in the world of the night. We have no eyes, and we are invalids like the blind. In contrast, those who know how to read and write live in daylight. They have eyes. It is senseless to stay in the world of darkness because we must progress to be like those who go to school and have eyes. Going to school, we open our eyes, we awake”* (Garcia, 2005:87).

The National Policy of Bilingual Education, created by Velasco’s government in 1972, advocated the implementation of bilingual education in areas where languages other than Spanish were spoken. This made education much more accessible to many indigenous groups that did not speak Spanish. Velasco’s government also started an initiative to make Quechua (a native language spoken by many indigenous groups) a national language that was equal to Spanish. However, over time consecutive governments dismantled Velasco’s reforms and the emphasis that was put on indigenous education (Garcia, 2005:75). Nonetheless, positive changes have taken place: *“constitutional reforms that recognize and legitimize linguistic, cultural, and ethnic diversity, the creation and maintenance of institutes, and programs for indigenous students, and the development of education materials in dozens of indigenous languages are only a few examples of the kind of progress made by advocates of cultural rights. Yet the inconsistencies between rhetoric and implementation still need to be addressed”* (Garcia, 2005:109).

So how has been the educational attendance of indigenous people been? Unfortunately, I have only obtained quantitative data about educational attendance for the last decade. Indigenous people’s attendance in formal education in Peru is generally lower than that of non-indigenous people. In 2001, indigenous adults had on average 6,4 years of schooling versus 8,7 years for non-indigenous people. However, since the 1950s primary school enrolment has increased significantly for both groups. In 1980 the primary school enrolment gap between them had even disappeared. This development is linked to the expansion of primary education in Peru (Hall et al., 2006:215-216). I have not obtained data on the percentage of indigenous people that have followed an education at all, or about how school attendance is distributed over different educational levels. However, a total of 6,4 years of education implies that many indigenous people have not attended education higher than primary school.

	Indigenous			Non-indigenous		
	Men	Women	All	Men	Women	All
Population aged 15+	7,6	5,6	6,4	9,2	8,3	8,7
Total	5,9	4,6	5,2	7,2	6,7	6,9
Household heads	6,3	2,7	5,6	8,7	7,3	8,4
Population aged 7-14	3,6	3,5	3,5	3,8	3,8	3,8

Table 6.5. Mean years of schooling of indigenous and non-indigenous people in Peru in 2001 (Hall et al., 2006:215)

## Proxy indicator b: Diversity of types of knowledge

As we have seen, on average, indigenous people in Peru have not experienced many years of formal education in schools. This limits their exposure to Western types of knowledge. Furthermore, they generally lack the knowledge and skills to organize themselves in a successful way and become more effective at defending their rights (Yashar, 2007:22,55). However, small initiatives like those of the CAAAP organization and IPARIT might be able to change this in the future (see box 6.8 and 6.9), but whether they will have a substantial possible positive impact remains to be seen.

Like in the other South American countries, the arrival of outsiders, whether it be the Spanish, peasant settlers or oil workers, has influenced traditional culture in many indigenous communities. Especially in the communities that are continuously exposed to outside influences, the chance of traditional knowledge being pushed to the background is high. Furthermore, large cultural changes and the loss of indigenous traditions is described as a common characteristic of indigenous communities that are located close to oil development (Haller et al, 2008:394-395).

### Box 6.8. Centro Amazónico de Antropología y Aplicación Práctica (CAAAP)

The Amazon Center of Anthropology and Practical Application (CAAAP) is an organization that was created in 1974 by nine bishops that were working in the Peruvian Amazon on the promotion of marginalized indigenous people of the jungle. The organization aims to create better opportunities for indigenous people in the Peruvian society while maintaining their culture and specific lifestyles. CAAAP applies a practical model in which indigenous peoples strengthen their knowledge, capacities and management skills and participation in development processes, at local, regional and national levels. CAAAP wants the indigenous groups to enable themselves to become change agents and in charge of their own development. The process of this development starts with education initiatives focused on the social, political, economic and cultural factors that can improve their quality of life. CAAAP works together with other public and private institutions to carry out its tasks (CAAAP, 2010).

CAAAP has started an important initiative called the 'Escuela de Liderazgo y Gobernabilidad' (School of Leadership and Governance). This school aims to form young indigenous leaders that have the capacity to provide effective leadership and governance focused on indigenous citizenship. It provides young indigenous people with political training, organizational skills, cultural education and knowledge about local development (CAAAP, 2010 (1) ).

Although CAAAP is not a very large organization, it does seem to provide indigenous actors with important skills and knowledge that they have been lacking. CAAAP tries to create a bridge between traditional and Western knowledge, and is trying to empower indigenous individuals to become more successful advocates of the indigenous cause. Thus far, indigenous organizing has remained poor, but whether the CAAAP initiative will be able to change this in the long run remains to be seen.

### Box 6.9. IPARIT

Very recently, a new Peruvian NGO, called the Institute for the Preservation of the Amazon Rainforest and Indigenous Traditions (IPARIT) has been established. This organization tries to merge and spread both indigenous and Western knowledge. The organization organizes courses and activities focused on strengthening the knowledge base and skills of indigenous people.

*“The Institute for the Preservation of the Amazon Rainforest & Indigenous Traditions is a Peruvian Non-Profit Organization dedicated to supporting a harmonious and abundant life through the integration of ancient wisdom and modern knowledge. We create holistic models of education, development and healing to bring support to the Peruvian population seeking the social, environmental, economic, and lifestyle improvements while maintaining their ethnic heritage. The institute is currently based on 40 acres in the Maynas Province of the Loreto Region of Peru in the rainforest between the city of Iquitos and the village of Nauta, and is home of our permaculture Education & Research Center, Natural Medicine Hospital and Center for Indigenous Healing Practices. The programs focus in the areas of Education, Health and Social Assistance. Many programs are in development for the education and training of both Amazonian and Andean communities and include:*

- *Professional technical training for farming communities using permaculture models*
- *Business Development assistance (in both planning, materials and supplies)*
- *Support in developing fair trade commerce for agricultural products with a focus on medicinal herbs and super foods*
- *Preventative natural health education and services to communities lacking basic medical assistance*
- *Programs and activities that supporting the re-emergence of native indigenous culture*
- *Programs supporting the preservation and sharing of medicinal and sacred plant medicine of the Amazon and Andes”* (Institute for the Preservation of the Amazon Rainforest and Indigenous Traditions, 2010).

#### 6.4.1.3. Resilience factor 3. Social and ecological memory

Proxy indicator a: The storage of information

Indigenous groups in Peru are at risk of an ongoing loss of their traditional knowledge. The indigenous population itself generally has not shown the means or organizational skills to create a system for the storage of traditional or other types of knowledge. I have not found any information related to indigenous groups that have set up any libraries, books, websites, databases, or other facilities to store traditional knowledge themselves.

Other national and international actors have created means (like databases, websites, books, libraries) to store information that is crucial to indigenous people (see e.g. Haller et al, 2008; Institute for the Preservation of the Amazon Rainforest and Indigenous Traditions, 2010; Garcia, 2005). These actors focus on different aspects of traditional indigenous knowledge (see box 6.10 and 6.11 for examples).

#### Box 6.10. Storage and spread of knowledge by UNESCO

*“Waru Waru, a cultivation and irrigation system used in flood-prone areas of the Altiplano, is mentioned by UNESCO (2005) as a good practice of indigenous knowledge in Peru. The implementation of Waru Waru took place during 1991 in the Southern Altiplano of Puno, where the highest lake of the world is located. The aim of the project was to recover an ancient agricultural practice done by the Tiahuanaco culture, which basically includes the opening of shallow canals (10-15 meters wide) filled with water in order to ensure a microclimate that acts as a buffer against night-time frosts and provides moisture during droughts and drainage during the rainy season. The canals also act as barriers to keep out crawling insect pests. The project helped to incorporate the Waru Waru in more than 120 communities in Puno. The practice improves land use for agriculture through diversified farming systems, which provide local farmers with greater harvest security, and reduce the risks associated with frosts and drought. Furthermore, this practice reunites indigenous people with their ancient culture, strengthens identity, raises self-esteem, and increases potatoes yield in the order of 50 to 100% through a better management of natural resources (UNESCO, 2005). The Waru Waru system combines two sets of traditional knowledge. The first is the crop system based on rounded ridges, which are two meters wide and crossed with furrows. The ridges are constructed with a traditional tool named chakitaclla, which is a pointed stick with which the soil is mounded up, softened and aerated. This creates a layer, safely above the water table, where the roots of plants do well. The second one is a crop system also based on rounded ridges, but the furrows run lengthwise instead of across the ridges. Because seeds are planted in two rows, the system is called panayra in Aymara. This means ‘two eyes’”. (Paden, 2007:201).*

The indigenous people of Peru are in luck that other national and international actors, such as NGOs, universities and government actors have created means for the storage of indigenous knowledge, and have been actively gathering this knowledge. The indigenous groups need this knowledge for their survival. Having access to knowledge about the indigenous struggle with oil companies in Peru and beyond is necessary for the indigenous people to improve their strategies. By looking at what happened in the past, they can learn from their mistakes, and look at the successes of others (e.g. in Ecuador) as a guide for future behavior. It is hoped that in the future, the indigenous people of Peru will be better able to gain access to and use the knowledge and skills that can strengthen their movement.

### Box 6.11. Traditional medicinal knowledge

*“One of every three Peruvians has turned to indigenous medicine at some point, say experts, emphasizing that traditional knowledge about the chemical traits of plants and roots is a valuable resource that complements modern pharmacology. ‘But it is also a science that is being lost due to the impact of trans-culturation’, pointed out Fernando Cabieses, a doctor and researcher who leads Peru’s Institute of Traditional Medicine. ‘Passed on from generation to generation through the oral tradition, this knowledge is beginning to be lost despite the fact that traditional Peruvian medicine gave the world quinine, which saved Europe from malaria, and later provided cat’s claw, Sangre de Grado, Maca and many others,’ he added. Cabieses, a specialist in neurology and cerebral medicine, is a pioneer in renewing appreciation of his country’s traditional medicine. He began studying this indigenous knowledge in 1950 when he observed the cranial boring techniques of Incan doctors. His book “Apuntes de Medicina Tradicional” (Notes on Traditional Medicine) is considered the most rigorous study of the issue and records in detail the medicinal plants of Peru’s native flora. [...] The physician believes the Peruvian government and private companies must be made to understand the importance of protecting traditional medicine in its entirety, as cultural heritage and a valuable national resource. The work done by experts in traditional medicine has now won official recognition and has caught the attention of local and foreign investors who are interested in uncovering new healing substances in order to manufacture and market them. [...] The Institute of Traditional Medicine, under Peru’s Health Ministry, opened its doors six years [now sixteen years] ago in Iquitos, the country’s largest Amazonian city. The institute has projects underway that involve growing and studying more than 600 medicinal plants. A germplasm bank can be found at the institute, containing 120 selected species. The research centre will soon begin reproducing another 500 medicinal plants belonging to 104 families and 332 botanical categories - all part of the biological wealth of the Peruvian Amazon jungle” (Lama, 2000).*

Initiatives like the one created by the Institute of Traditional Medicine create a powerful system that will prevent indigenous medicinal knowledge from getting lost. However, there is a risk that pharmaceutical companies will take advantage of the knowledge that has become available and use it only for their own good. In this case, the ecosystems of the Amazon region are at risk to become plundered for their medicinal plants and crops. It is therefore crucial that the government protects indigenous knowledge. There are several laws in Peru for the protection of indigenous knowledge. Furthermore, a government institute has been created (el Instituto Nacional de la Defensa de la Competencia y Protección de la Propiedad Intelectual) that works on the protection of the collective knowledge of indigenous communities (Paden, 2007:197).



Indigenous Shaman from the Peruvian Amazon who acts as the local doctor, helping sick people with medicine made from plants gathered in the surrounding forest (Wildernessclassroom, 2007).

#### 6.4.2. The impact of the oil boom on indigenous people

In this chapter I have analyzed the final case study, focusing on the Peruvian oil boom and the resilience of the indigenous population. I will now investigate whether the impact on the indigenous population of the disturbances caused by oil development has depended on the resilience of the indigenous population.

In chapter two I stated that I expect that if the resilience level of the indigenous people is high, it will have caused absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts. I also anticipate that if the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa. Have these expectations become reality in the Peruvian case?

When looking at the scores on the proxy indicators for resilience, I conclude that the resilience of the indigenous population in Peru is low. Peru has not witnessed sustained indigenous organization. Few indigenous institutions have been created, which do not have strong links with one another. Furthermore, although they are supported by some large international organizations, the existing indigenous organizations have few links with other secondary actors. Despite the fact that a large part of the Peruvian population is indigenous, indigenous people are hardly represented in politics. Their legal rights have improved, but this has not improved the realistic opportunities for the movement. Indigenous people have little monetary means or human capital at their disposal. The strategies they have used to deal with oil disturbances have not been very successful, diverse or flexible. The few protest marches they have organized did not cause the desired effects, and they have not been able to attract much media attention (although external supporting organizations have been able to do so in some cases). There are a few cases known in which physical display of power or violence has been successful as a strategy to counteract oil development, however.

Indigenous people in Peru also score poorly on the second and third proxy indicators, which are knowledge and social-ecological memory. Their traditional knowledge has decreased and due to a low level of formal education, they generally do not have much access to Western types of knowledge. Indigenous people have not created a system to store valuable knowledge. Furthermore, they generally lack the knowledge and organizational skills that are necessary to jointly counteract the negative disturbances caused by oil. However, on the positive side, the introduction of bilingual education in Peruvian society seems to slowly increase the educational attendance of indigenous people. Furthermore, some national and international organizations have created databases in which traditional and Western knowledge are stored on which indigenous groups can rely.

The level of oil disturbance in Peru is low to medium. Oil development has not been as intense as in the other countries and has caused milder disturbances. Nonetheless, the indigenous people have not shown to be able to absorb or buffer negative effects of oil development, or turn them into positive ones. I have found no important instances in which the indigenous population successfully absorbed or buffered the negative impacts of oil, except for the armed Achuar community that forced oil companies to reduce their contamination and pay for the pollution they caused (box 6.7). This lack of buffering of the negative effects of oil development confirms my expectation.

The resilience level of the indigenous population is low, and so is the level of disturbances that have taken place. My expectation was thus that the indigenous systems would not undergo fundamental changes in their functional characteristics during the oil boom. This has indeed been the case. The indigenous population has experienced negative social, economic and environmental effects of oil development, but not of the same magnitude as in countries like Venezuela. I have not found any cases of indigenous communities disappearing, mass migrations, the total vanishing of cultures or traditions, etcetera.

However, given the recent developments, it seems like this situation is changing rapidly. With all the new contracts that are being negotiated for new oil sites, the disturbances are likely to increase. It seems that given the current state of resilience of the indigenous people in Peru, they will be unable to prevent any unwanted changes in the future.

Thus, for this last case study, my expectations have been confirmed. The analysis of the resilience of indigenous population indicated that their resilience is low, and it has not been able to prevent negative impact from oil. It was also expected that if the level of disturbances caused by oil was low, indigenous systems would not undergo fundamental changes in their functional characteristics. This expectation has been confirmed as well.

## **CHAPTER 7.**

### **CONCLUSIONS AND DISCUSSION**

#### **7.1. Introduction**

In this last chapter of this thesis, I will analyze the results of the research performed on the four case studies. In the conclusions section I will focus on different variables that have been central to the research: variables that were the direct focus of the research, as well as important related, but external variables. Based on comparative tables I have created with all the outcomes for the measurements of the research variables, I will draw lessons from the results and answer the main research question that I formulated in chapter two, concluding what impact the oil booms in Venezuela, Colombia, Ecuador and Peru have had on the indigenous people in these countries, and in what way their resilience determined this impact. In the discussion I will focus on the value of the research I performed, the strengths and weaknesses of the research method, the applicability of the results, and paths for future research.

#### **7.2. Conclusions**

##### *7.2.1. The oil booms*

In this section I will analyze the different oil booms that have been taking place in the four countries under study. This analysis will make clear which similarities and differences can be found when comparing the four cases, and what implications this has for the analysis of the other parts of this research.

I initially selected the four focus countries for this research based on similarity across a small number of basic criteria. In order to improve comparability and to keep external variables as constant as possible, I selected cases that are generally similar in terms of their geographical location, their colonial past, the development of their economies, and the groups that are directly and most intensely influenced by oil extraction, of which the large majority consists of indigenous people. While performing the research, several important individual characteristics of the oil booms in the four countries came to light that make the cases unique, and more importantly, that have implications for the analysis of the main research question. These characteristics I will now describe.

##### *7.2.1.1. Intensity and duration of the oil booms*

The intensity and the duration of the oil booms determine how much oil activity takes place in a country and for how long. Clearly, if the intensity and the duration of the oil boom are high, the chance that oil activity will cause significant disturbances for the indigenous population of the country is high as well. As we can see in table 7.1, the intensity of the oil boom in Venezuela has been very high, and its duration has been long. This has the consequence that the indigenous population of Venezuela has been exposed to oil development on a large scale, for a long time. The likelihood that the indigenous people have experienced significant disturbances is in this case high, which will make preventing these disturbances from changing their systems very challenging. In Peru on the other hand, although the duration of the oil boom has been very long, the intensity of the oil boom has been low. Thus, during a long period of time, the indigenous population of Peru has only been exposed to little oil activity. This decreases the likelihood of the indigenous population experiencing intense disturbances. Furthermore, buffering or preventing the effects of mild disturbances is not as difficult as intense ones. Colombia and Ecuador both have experienced an oil boom with a high intensity, although the duration of the boom in Colombia has been longer than in Ecuador. The indigenous populations have thus been exposed to much oil activity, giving them a high chance on experiencing intense oil disturbances for which the negative effects are difficult to buffer or prevent.

These differences between the four countries show us that the analysis I have done is based on four case studies that each have a different base line in terms of the oil booms. This fact, and the implications it has I will have to take into account in the further analysis of the results.

### 7.2.1.2. Geographical location/distribution of oil development

If oil activities only take place in only a single, small area in a country, the related disturbances will most likely be centered around this area and less spread out over the country. If oil activities take place at a multitude of locations in a country, disturbances such as pollution and deforestation will most likely also be found in many areas. Geographical distribution of oil development can therefore greatly influence the distribution of disturbances that take place. As can be seen in table 7.1, in none of the four countries are oil activities limited to a single spot or small area. In all cases, one-fourth to half of the country is covered by different oil concessions. In the four countries oil activities are widespread, which increases the *likelihood of the occurrence* of disturbances at many locations. The four countries are therefore quite comparable in terms of the geographical distribution of oil development.

### 7.2.1.3. Oil booms and the resource curse

The resource curse stands for the failure of the oil-rich countries to benefit from their own natural wealth. If an oil boom in a country has led to a resource curse, its society has developed unhealthy political, economic and social trends. I have looked at the political, social, and economic process and changes that have taken place to determine whether the resource curse phenomenon had developed in the countries or not. According to my analysis, the resource curse has developed in Venezuela, Colombia and Ecuador (see table 7.1). In Peru this has happened to a lesser extent, since the intensity of the oil boom and its linked societal changes have thus far been rather low. For this country, we cannot yet speak of a resource curse.

The presence of unsustainable societal trends due to oil development can greatly limit the options indigenous people have to *buffer or stop the negative effects* disturbances have on their systems. For instance, if politicians have become corrupt and are making deals with oil companies under the table, despite their efforts, the indigenous groups might not receive much support in politics if they want to bring a halt to oil activities. Thus, especially in Venezuela, Colombia, and Ecuador, the effects of the resource curse confront the indigenous population with extra challenges in their dealings with oil disturbances.

Oil boom characteristics	Country			
	Venezuela	Colombia	Ecuador	Peru
Duration boom (thus far)	Long (96 years)	Long (92 years)	Medium (43 years)	Very long (120 years)
Peak(s)	Early 1970s	From mid-1980s onwards	From early 1970s onwards	Around 1890 and Mid-1970s to mid-1990s
Intensity	Very high	High	High	Low
% of exports (current)	80%	47%	40%	12,8%
Geographical location/distribution of oil development	-active oil sites in about one-third of the country, mostly in the northwest and northeast	-active oil sites on about one-fourth of the country, in the Amazon region in the middle and southern part of the country -large increase likely in the	-active oil sites in about half of the country, in the Amazon region in the eastern part of the country	-active oil sites in about one-third of the country, in the Amazon region in the eastern part of the country – but a -large increase likely in the following years

		following years		
Political processes and changes	<ul style="list-style-type: none"> <li>-continuous unstable political situation</li> <li>-oil central organizing principle for politics</li> </ul>	<ul style="list-style-type: none"> <li>-continuous unstable political situation</li> <li>-conflicts between guerillas and the state lead to extreme violence and massacres</li> <li>-oil is one of the main organizing principles for politics</li> </ul>	<ul style="list-style-type: none"> <li>-continuous unstable political situation</li> <li>-oil is one of the main organizing principles for politics</li> </ul>	<ul style="list-style-type: none"> <li>-continuous unstable political situation</li> <li>-oil is one of many organizing principles for politics</li> </ul>
Economic processes and changes	<ul style="list-style-type: none"> <li>-extremely high economic dependency on oil</li> <li>-deterioration of other economic sectors</li> <li>-many growth and contraction cycles</li> <li>-1976 industry fully nationalized</li> <li>-poverty increases</li> </ul>	<ul style="list-style-type: none"> <li>-high economic dependency on oil</li> <li>-deterioration of other economic sectors</li> <li>-carte blanche for the oil industry in 2003 proceeds large expansion of the industry</li> <li>-poverty numbers remain high</li> </ul>	<ul style="list-style-type: none"> <li>-high economic dependency on oil</li> <li>-almost continuous growth of the oil industry, but large price fluctuations</li> <li>-poverty numbers remain high</li> </ul>	<ul style="list-style-type: none"> <li>-medium economic dependency on oil</li> <li>-two periods of economic growth of the oil industry with a downfall between around 1940 and 1970</li> <li>-carte blanche for the oil industry in 2003 proceeds large expansion of the industry</li> <li>-poverty numbers remain high</li> </ul>
Social processes and changes	<ul style="list-style-type: none"> <li>-high inequality, which is still increasing</li> <li>-mass migration to oil fields</li> <li>-new social patterns (labor, consumption, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>-high inequality, which is still increasing</li> <li>-civil war and violence</li> <li>-mobilization and protests against violence</li> <li>-migration to oil fields</li> </ul>	<ul style="list-style-type: none"> <li>-high inequality</li> <li>-strong protests against government policies and inequality</li> <li>-mass migration to oil fields</li> </ul>	<ul style="list-style-type: none"> <li>-high inequality which is increasing</li> <li>-protest against inequality</li> <li>-little protest against oil development</li> </ul>
Oil boom and the resource curse	<ul style="list-style-type: none"> <li>-politics, social and economic policies greatly linked to oil</li> <li>-emergence Dutch disease</li> <li>-negative social and environmental effects</li> </ul> <p>Resource curse: yes</p>	<ul style="list-style-type: none"> <li>-politics, social and economic policies linked to oil</li> <li>-emergence Dutch disease</li> <li>-negative social and environmental effects</li> </ul> <p>Resource curse: yes</p>	<ul style="list-style-type: none"> <li>-politics, social and economic policies linked to oil</li> <li>-emergence of Dutch disease</li> <li>-negative social and environmental effects</li> </ul> <p>Resource curse: yes</p>	<ul style="list-style-type: none"> <li>-unhealthy political, social and economic but these are only mildly linked to oil</li> <li>-no Dutch disease</li> <li>-nonetheless negative social and environmental effects</li> </ul> <p>Resource curse: no, but might</p>

				develop soon
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-  = factor/characteristic that greatly increases the chances of the oil boom to cause disturbances for indigenous people
-  = factor/characteristic that increases the chances of the oil boom to cause disturbances for indigenous people
-  = factor/characteristic that only mildly increases the chances of the oil boom to cause disturbances for indigenous people
-  = factor/characteristic with neutral/no clear verifiable effect

\* Based on less reliable/incomplete data

Table 7.1. Comparison of the main characteristics of the oil booms in Venezuela, Colombia, Ecuador and Peru.

Thus, in terms of the geographical location/distribution of oil development, the four cases are quite similar. However, the four countries have different scores on the intensity and duration of the oil boom, as well as on the presence of the resource curse.

### 7.2.2. The indigenous populations

In this section I will analyze the indigenous populations of the four different countries under study. I will discuss some of the main similarities and differences that can be found when comparing the four case studies in terms of their indigenous populations, and what implications this has for the analysis of the main research question. When I selected the four cases, one of the criteria I used was the presence of an indigenous population in the country. While analyzing the four case studies, some important differences between the cases became apparent that I will now discuss.

#### 7.2.2.1. Size of the indigenous population

The sizes of the indigenous populations in the four countries vary greatly (see table 7.2). The indigenous populations of Venezuela and Colombia are very small (2 and 2 to 3,4 percent of the total population), while in Ecuador and Peru indigenous people make up a large part of the society (thirty to forty-three percent, and thirty-eight to forty-seven percent). If an indigenous population is very small, the low numbers and small relative representation in the country can make it more challenging for the indigenous people to *prevent negative effects* from oil disturbances. On the other hand, if a country's population is made up of a large group of indigenous people, its large numbers can work as an advantage. Thus, in Venezuela and Colombia, the small sizes of the indigenous populations could work against their successfulness, while in Ecuador and Peru the large indigenous populations could work as an advantage. However, I have not researched this effect specifically for this project and can therefore not determine the exact influence this variable has had.

#### 7.2.2.2. Number of different tribes

The indigenous populations of the four countries consist of a number of different tribes or ethnic groups. As we have seen, many of these speak their own languages and have their own cultural traditions. This diversity in itself is interesting, but can potentially create obstacles. It can be difficult to establish strong links between tribes that do not speak the same language or have the same cultural background. This makes it difficult to for instance communicate, to jointly organize or mobilize, or to create educational programs. However, for this research the specific effect of this variable has not been investigated, so to what extent it influences the outcome of the research remains unknown. As we can see in table 7.2, especially in Colombia and Peru, the numbers of different tribes are very high (85-102 and 50-80). In Venezuela and Ecuador the numbers of different tribes are substantially lower (24-38 and 10).

#### 7.2.2.3. Proximity to oil development

The proximity of oil development to indigenous territories determines the *likelihood* that indigenous people

will actually *experience the negative effects* of the disturbances that take place. As can be seen in table 7.2, in all four cases, most of the indigenous groups live near oil activities. This makes the likelihood of them experiencing disturbances that take place very high in all countries.

Features indigenous populations	Country			
	Venezuela	Colombia	Ecuador	Peru
Percentage of total population indigenous	2%	2-3,4%	30-43%	38-47%
Number of different tribes	24-38	85-102	10	50-80
Geographical location	Spread out over the country but most live in the northwest	Three-quarters live in the Amazon region (east) and the rest spread over different departments	Mostly in the Amazon region (east) and Andes region	Spread out over the country, many different tribes in the Amazon region (northeast)
Proximity to oil development	Most indigenous groups live near oil development	Majority lives near oil development	Almost all indigenous people who do not live in the Andes region live near oil development	Most indigenous groups live near oil development

Table 7.2. Comparison of the main characteristics of the indigenous populations of Venezuela, Colombia, Ecuador and Peru.

Thus, the sizes of the indigenous populations in the four countries vary greatly. The indigenous populations in all countries live near oil development, which makes it likely for them to experience the effects of disturbances when these take place. The numbers of different tribes in the four countries vary greatly, but the effect of this is not researched.

### 7.2.3. The disturbances experienced by indigenous populations

In this section I will focus on the disturbances experienced by indigenous populations in the four different countries under study. To remind the reader: the *level of disturbance* will determine to what extent changes can potentially take place in the indigenous social systems. However, the resilience of the system will eventually determine what *impact* the disturbance will eventually have in reality on these systems, and what changes will take place.

#### 7.2.3.1. The overall level of disturbance

The overall level of disturbances experienced by indigenous people in a country is determined by looking at a combination of all of the social, economic, and environmental disturbances that have been taking place (see table 7.3). The overall level of disturbance in Venezuela is very high. This corresponds with the measurement of the intensity of the oil boom, which is very high as well. The disturbance levels in Colombia and Ecuador

were high, as was the intensity of their oil booms. The overall level of disturbance in Peru was low to intermediate, which corresponds with the low intensity of the oil boom which has had a long duration. Most of the types of disturbances caused by oil development that have taken place are similar in the four countries, such as pollution and the entering of territories by outsiders. However, the intensity at which these disturbances took place differs per country.

Disturbances experienced by indigenous peoples	Country			
	Venezuela	Colombia	Ecuador	Peru
Overall level of disturbance	Very high	High	High	Low to intermediate
Social	<ul style="list-style-type: none"> <li>-entering of territories by outsiders</li> <li>-relocation of many communities</li> <li>-forced labor indigenous people in the early days</li> <li>-mass migration of settlers into indigenous territories</li> <li>-changing lifestyles, gambling, prostitution</li> </ul>	<ul style="list-style-type: none"> <li>-entering of territories by outsiders</li> <li>-mass migration of settlers into indigenous territories</li> <li>-changing lifestyles</li> <li>-introduction of new diseases</li> <li>-violence between guerillas and security forces in indigenous territories</li> </ul>	<ul style="list-style-type: none"> <li>-entering of territories by outsiders</li> <li>-mass migration of settlers into indigenous territories</li> <li>-changing lifestyles</li> <li>-introduction of new diseases</li> </ul>	<ul style="list-style-type: none"> <li>-entering of territories by outsiders</li> <li>- introduction of new diseases</li> <li>-incidents of hostilities and violence between government and indigenous people</li> </ul>
Economic	<ul style="list-style-type: none"> <li>-maintaining self-sufficient lifestyle in most cases difficult/impossible</li> <li>-monetary system introduced</li> <li>-shortages and high prices for goods*</li> </ul>	<ul style="list-style-type: none"> <li>-maintaining self-sufficient lifestyle in many cases difficult/impossible</li> <li>-monetary system is introduced*</li> </ul>	<ul style="list-style-type: none"> <li>- maintaining self-sufficient lifestyle in many cases difficult/impossible</li> <li>- monetary system introduced*</li> </ul>	<ul style="list-style-type: none"> <li>-maintaining self-sufficient lifestyle in several cases more difficult</li> <li>-indigenous people cannot take economic advantage of their legal land rights*</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>-large-scale pollution of land and water</li> <li>-large-scale deforestation,</li> </ul>	<ul style="list-style-type: none"> <li>-large-scale pollution of land and water, pipeline bombings by guerillas cause</li> </ul>	<ul style="list-style-type: none"> <li>-large-scale pollution of land and water</li> <li>-large-scale deforestation,</li> </ul>	<ul style="list-style-type: none"> <li>-intermediate pollution of land and water</li> <li>-Seismic testing destroys and</li> </ul>

	fragmentation	extra pollution -large-scale deforestation, fragmentation	fragmentation	disrupts nature
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	= large-scale/large disturbances
	= medium-scale/medium disturbances
	= small-scale/mild disturbances
	= no disturbances

\* Based on less reliable/incomplete data

Table 7.3. Comparison of the main disturbances caused by oil development, experienced by the indigenous populations of Venezuela, Colombia, Ecuador and Peru.

Thus, the overall levels of disturbances are very high in Venezuela, high in Colombia and Ecuador, and low to intermediate in Peru. These countries experienced similar disturbances, but these had different levels of intensity.

#### 7.2.4. The resilience levels of the indigenous populations

In this section I will discuss the resilience levels of the indigenous population, which are based on the outcomes of the measurements on the proxy indicators for resilience.

##### 7.2.4.1. Institutional diversity

The resilience factor institutional diversity is a broad factor that encompasses many different things. It is also the factor with the most extreme scores. As we can see in table 7.4 the scores of both Venezuela and Peru on the different proxy indicators are rather low, which indicates that the indigenous populations these countries have not been able to organize themselves and a network around them and the diversity of their resources and policies was low. Colombia and Ecuador score much higher, they created many new institutions and a network of allies around them, and the diversity of their resources and policies was quite high as well.

##### 7.2.4.2. Knowledge

The second resilience factor knowledge focused on the transfer and diversity of knowledge. As we can see in table 7.4, all four indigenous populations had rather low scores on both of the proxy indicators for this factor.

##### 7.2.4.3. Social and ecological memory

The third resilience factor knowledge focused on the social and ecological memory of the indigenous populations. All four populations had low scores on the proxy indicator for this factor, indicating that their storage of knowledge was not present or not very well organized.

##### 7.2.4.4. Overall resilience level

When looking at all of the different scores each of the indigenous populations had on the proxy indicators for resilience, one can come to an overall resilience level for each of these. The overall resilience levels of the indigenous populations of both Venezuela and Peru are low, whereas the overall resilience levels of the indigenous populations of Colombia and Ecuador are medium to high.

Resilience factor	Proxy indicator resilience	Country			
		Venezuela	Colombia	Ecuador	Peru
Institutional diversity	The creation of new institutions and their diversity	-the creation of new institutions to oppose oil has only started about two decades ago and proceeds slowly -few institutions have been created, mostly on a local level, some on a national level -there is little coherence within and between institutions -strategies have changed from protests to following government policy: low institutional diversity -government impedes development and activities of civil society organizations	-the creation of new institutions to oppose oil started about forty years ago -many institutions have been created, on a local, national, and international level -the coherence within and between institutions is quite strong -special indigenous institutions focused on the civil war and violence (near oil development) have been created	-the creation of new institutions to oppose oil started about forty years ago -many institutions have been created, on a local, national and international level -the coherence within and between institutions is quite strong	-the creation of new institutions has still hardly started and proceeds slowly -few institutions have been created, mostly on a local level, some on a regional or national level -there is little coherence within and between institutions -a few relatively new regional/national institutions could be more promising
	Linked secondary institutions.	-small, weak network of national linkages -weak or hardly existent network of international linkages -some links with inter-American indigenous rights movement, (national) human rights organizations, and the Catholic church	-strong and large network of national linkages -strong and large network of international linkages -in terms of international network especially links with U.S. based organizations	-strong and large network of national linkages -strong and large network of international linkages	-small, weak network of national linkages -weak link with and support from government -few links with other Peruvian NGO's (e.g. environmental) - (increasing amount of) links with international NGO's and multilateral development agencies

	Diversity of resources/ means	-political influence: currently increased with indigenous representatives in state bodies, however intrusion of politics in previously independent organizations -legal means: strong legal foundation, but often implementation is weak -monetary income and human capital: poverty remains but human capital has increased*	-political influence: Indigenous population has influence and has its own political parties* -legal means: important laws in favor of indigenous people have been created, which have had little significance in practice Nonetheless -monetary income and human capital: Poverty remains high, access to public and private services is low*.	-political influence: indigenous population has influence and has its own political party -legal means: national laws for formation of community organizations, relatively weak environmental/ land title laws but nonetheless very promising lawsuit against Chevron -monetary income and human capital: few means, poverty numbers are very high Few and bad health facilities, malnutrition and disease	-political influence: little influence legal means: strong legal foundation, but not applied in real life -monetary income and human capital: few means, poverty numbers are very high. limited access to private and public services, health status unknown *
	Diversity/ flexibility of management and policies	-no protest marches against oil development -physical display of power or violence has been successful a few times -movement has not attracted much media attention*	-quite a lot of protest marches against human rights abuses and oil development -physical display of violence has been successful a few times -movement has attracted media attention	-many protest marches against oil development and other indigenous issues -physical display of violence has been successful a few times -movement has attracted media attention -ecotourism to prevent oil activity	-few protest marches against oil development, a recent one had an adverse effect -physical display of power or violence has been successful a few times -movement has not attracted much media attention (international NGOs have been)
Knowledge	Transfer of knowledge	-formal school attendance has thus far been very low, especially higher levels -formal school attendance shows	-formal school attendance has thus far been low, however increased enrollment in universities -bilingual	-formal school attendance has thus far been low, especially higher levels -formal school attendance shows an increasing	-formal school attendance has thus far been low, especially higher levels -trend of increased primary school

		<p>an increasing trend in recent years</p> <ul style="list-style-type: none"> <li>- indigenous people have a disadvantaged position compared to the non-indigenous in formal education</li> <li>-a strong, recent initiative is the creation of the Indigenous University of Venezuela (IUV)*</li> </ul>	<p>education makes education more accessible for indigenous people, however not very well developed yet</p>	<p>trend in recent years</p> <ul style="list-style-type: none"> <li>-indigenous people have a disadvantaged position</li> <li>-indigenous have a disadvantaged position compared to the non-indigenous when it comes to formal education</li> <li>-bilingual education makes education more accessible for indigenous people, however its effectiveness remains unknown*</li> </ul>	<p>enrollment</p> <ul style="list-style-type: none"> <li>-bilingual education makes education more accessible for indigenous people</li> </ul>
	Diversity of types of knowledge	<ul style="list-style-type: none"> <li>-few people have access to Western knowledge</li> <li>-traditional knowledge decreasing</li> <li>-traditional as well as western knowledge is taught to IUV students who subsequently spread this knowledge in their home communities</li> <li>-knowledge and skills for successful organizing very limited*</li> </ul>	<ul style="list-style-type: none"> <li>-few people have access to Western knowledge</li> <li>-traditional knowledge is decreasing</li> <li>-initiatives to recover and spread traditional knowledge are appearing</li> <li>-knowledge and skills for successful organizing are present</li> </ul>	<ul style="list-style-type: none"> <li>-few people have access to Western knowledge</li> <li>-traditional knowledge is decreasing</li> <li>-initiatives to recover and spread traditional knowledge are appearing</li> <li>-knowledge and skills for successful organizing are present</li> </ul>	<ul style="list-style-type: none"> <li>-few people have access to Western knowledge</li> <li>-traditional knowledge decreasing</li> <li>-knowledge and skills for successful organizing very limited</li> </ul>
Social and ecological memory	Storage of information	<ul style="list-style-type: none"> <li>-no system for the storage of knowledge created by indigenous people</li> <li>-no databases created by indigenous people</li> <li>-indigenous people have to rely on others</li> </ul>	<ul style="list-style-type: none"> <li>-no system for the storage of knowledge created by indigenous people</li> <li>-no databases created by indigenous people</li> <li>-indigenous people have to rely on others</li> </ul>	<ul style="list-style-type: none"> <li>-no system for the storage of knowledge created by indigenous people</li> <li>-some means for storage created by indigenous people</li> <li>-indigenous people mainly have to rely on</li> </ul>	<ul style="list-style-type: none"> <li>-no system for the storage of knowledge created by indigenous people</li> <li>-no databases created by indigenous people</li> <li>-indigenous people have to rely on others</li> </ul>

		who have stored some knowledge that is useful to them	who have stored some knowledge that is useful to them	others who have stored some knowledge that is useful to them	who have stored some knowledge that is useful to them
Overall resilience level based on scores on proxy indicators		Low	Medium to high	Medium to high	Low

	= very negative score on proxy indicator
	= slightly negative score on proxy indicator
	= slightly positive score on proxy indicator
	= very positive score on proxy indicator

\*Based on incomplete/less reliable data

Table 7.4. Scores on the proxy indicators for resilience and the overall resilience level of the indigenous populations of Venezuela, Colombia, Ecuador and Peru.

### 7.2.5. Synthesis: the impact of the oil booms on indigenous populations and resilience

In this section I will synthesize all the results of this study that I have described in the previous sections, and I will come to an answer for the research question for this project.

#### 7.2.5.1. Impact of the oil booms on indigenous people

I will now discuss the impact the oil booms have had on the indigenous populations of the four countries under study. As became clear in the first and second chapter of this thesis, it was expected that the *impact* of the disturbances caused by the oil boom on the indigenous populations depends on the intensity *level of disturbances* caused by oil development combined with the *resilience of the indigenous population*. The impact of the oil booms have had on the indigenous population was therefore determined by comparing the levels of disturbances that have taken place in the four countries with the mitigating effects the indigenous populations have created to lessen the impact of the disturbances. The overall outcomes of these comparisons are depicted in table 7.5.

	Venezuela	Colombia	Ecuador	Peru
Impact of the oil boom on indigenous population	High	Medium	Medium to high	Low

Table 7.5. The impact of the oil booms on the indigenous populations of Venezuela, Colombia, Ecuador and Peru.

#### 7.2.5.2. The impact of the oil booms and resilience

We have now come to the piece de resistance, which is finding out whether there is a link between resilience and the impact the oil booms have had the on indigenous populations.

I will first focus on the two hypotheses I gave in chapter two. These were:

*If the resilience level of the indigenous people in a country is high, it will have caused an absorption and/or buffering of possible negative impacts and will have been able to actively stimulate possible positive impacts and vice versa.*

*If the resilience level of the indigenous people in a country is high, their systems will not have undergone fundamental changes in their functional characteristics during the oil boom and vice versa.*

Have these expectations come true based on the results of the research? I will look at this for each of the four cases.

In Venezuela, the intensity of the oil boom has been very high, and so has the level of the disturbances caused by oil development. Furthermore, the resilience level of the indigenous people is low. I expected that if this would be the case, the impact of the oil boom on the indigenous people would be high, which it is. The data I have found shows that their systems have undergone fundamental changes in their functional characteristics, as expected. This case therefore *confirms* my expectations.

In Colombia the intensity of the oil boom has been high, and so has the level of the disturbances caused by oil development. The resilience level has been assessed as medium to high. I expected that if this would be the case, the impact of the oil boom on the indigenous people would be medium to low, which it is not, since it is medium to high. Furthermore, I expected the indigenous population would not undergo fundamental changes, which it to some extent has. This therefore *does not confirm my expectations*.

In Ecuador the intensity of the oil boom has also been high, and so has the level of the disturbances caused by oil development. The resilience level of the indigenous population is medium to high. I expected that if this would be the case, the impact of the oil boom on the indigenous people would be medium to low, which it is not, since it is medium to high. Furthermore, I expected the indigenous population would not undergo fundamental changes, which it to some extent has. This therefore *does not confirm my expectations*.

In Colombia, the intensity of the oil boom has been low, and so has the level of the disturbances caused by oil development (low to intermediate). Furthermore, the resilience level of the indigenous people is low. I expected that if this would be the case, the impact of the oil boom on the indigenous people would be low, which it is. Furthermore, the data I have found shows that their systems have not undergone fundamental changes in their functional characteristics, as expected. This case therefore *confirms* my expectations.

The data I just presented can be viewed in table 7.6.

	Venezuela	Colombia	Ecuador	Peru
Oil boom intensity	Very high	High	High	Low
Level of disturbances caused by oil boom	Very high	High	High	Low to intermediate
Resilience level of indigenous people	Low	Medium to high	Medium to high	Low
Impact of the oil	High	Medium to high	Medium to high	Low to

boom on indigenous people				intermediate
Hypotheses confirmed	Yes	No	No	Yes

Table 7.6. Synthesis: the oil boom intensities, the levels of disturbances, the resilience levels, the impact of the booms on the indigenous populations of Venezuela, Colombia, Ecuador and Peru, and the confirmation of the hypothesis

#### 7.2.5.2. The main research question

What do the outcomes just described mean for the answer to the main research question of this project? The main research question was:

*What impact did the oil booms in Venezuela, Colombia, Ecuador and Peru have on the indigenous people in these countries, and in what way has their resilience determined this impact?*

In the two cases where resilience was determined to be quite high (Colombia and Ecuador), it did not cause the effect that was expected, or at least not to the extent that was expected. In these countries, only some disturbances caused by oil development have been buffered, but clearly not most or all of them.

How can this difference be explained?

While conducting this research it has become increasingly clear to me that resilience is a variable that is hard (perhaps impossible) to isolate from other variables when applied to social systems. This makes measuring it in practice very complex as well. I assume that the fact that I am one of the pioneers in the operationalization of resilience indicators for social (indigenous) systems, my measurement tool with proxy indicators is not perfect and complete, which leads to an imperfect measurement of resilience and distorted results.

Furthermore, as I have mentioned earlier in this chapter, I believe that certain variables external to this research framework, whether directly related to indigenous people (such as the number of different tribes within the indigenous population), or in the wider context of this research (such as social, legal and political processes), influence and interact with all variables of this research. When measuring the continuously evolving variable resilience, which interacts with a context of variables that continuously evolve and interact with one another themselves, it becomes hard to make cause-effect statements with confidence.

In the other two cases (Venezuela and Peru), the hypotheses were confirmed. In these cases, the effect that I expected has occurred. However, as I have just mentioned, it is not justified to come to the strict conclusion that in these cases, resilience has thus been the one factor determining the impact.

Where does all this leave us when going back to the main research question of this project?

The results of the four case studies give reason to believe there is at least a link between the resilience of the indigenous populations and the impact the oil booms had on them. In two cases my expectations were confirmed, and despite the fact that resilience did not cause the full effect that was expected in the other two, there were still examples that showed that certain disturbances were mitigated. Given the complexity of capturing the concept of resilience it is not appropriate to make strong cause-effect statements. The answer to the research question is therefore that, based on the results of this research, there seems to be a link between the resilience of the indigenous people of Venezuela, Colombia, Ecuador, and Peru, and the impacts the oil booms in their countries had on them, but there is more research needed to unravel the exact effect of it.

### 7.3. Discussion

In this final section of the thesis, I will critically discuss different aspects of the research that I have performed and attempt to draw lessons from its strengths and weaknesses.

#### *7.3.1. The value of the performed research for science*

As we have seen, the systems approach and the related concept of resilience are relatively new in sustainability research. Applying the theory of resilience to practice is still a challenge, due to its complexity and case-specific application. No ready-made frameworks or indicators exist that can be applied to practical situations. This research has added to the small, but growing collection of research that has tried to link resilience theory to concrete, real-world examples. With initiatives like this one, a stronger base of empirical research can be created to understand resilience and its applicability better, and the gap between theory and practice can be bridged.

More specifically, the topic of indigenous groups in South America and their struggles is generally underexposed in research. Little if anything is known about the resilience of the indigenous groups, let alone in relation to oil development. I believe this research has provided new insights about the indigenous groups in the four focus countries, their resilience, and the specific ways in which these groups have dealt with disturbances caused by oil development.

#### *7.3.2. The strengths and weaknesses of the research method*

With conducting this research project, I have taken up quite a challenge. I focused on resilience, which is a relatively new, abstract and complex concept in sustainability science. The measurement of resilience has only been applied to social systems in a few cases, which limits the data that was available to me for my analysis. Furthermore, I applied the concept to indigenous groups in South America, which is another topic about which relatively little is written. These people live in very remote parts of the world and are only tenuously connected to modern society. Relatively few studies have been performed that focus on these people, and even fewer on their relationship with oil. Finding and combining the right information was therefore quite a challenging activity.

A strength of the method that I have used is that I have gathered and organized an extensive set of qualitative data about indigenous populations, their resilience, and the oil booms that have been taking place in their countries. With the approach that I have taken, I have created rich, analytical narratives to compare the four different case studies I have focused on. I have found a way to create a multi-dimensional picture that links an abstract phenomenon with a special focus group, operating in a complex context.

The qualitative method that I have used also has the advantage that it takes the topics of resilience and oil booms out of abstraction and provides us with the ‘human aspect’ of it all. By zooming in on specific cases of communities or events within the four case studies, I have revealed intangible factors that play a role in the whole, such as worldviews, socio-economic status and religion. If I had used a quantitative approach, these would not have become apparent.

However, at the same time the methodology I have chosen has its limitations. By using a qualitative approach, it has become more difficult to separate external variables from the variables I want to focus on for the research. I focus on the relation between the oil booms and the resilience of indigenous people. However, a pure measurement of the interaction between these variables eliminating external factors is simply impossible. All kinds of external variables that are present in the context of the cases cause all kinds of effects on and interactions with the variables upon which I focus. I have mentioned several external factors I expect to have an influence, but cannot (fully) investigate their interaction with main variables. An example of such a factor is the number of different tribes within the indigenous population of a country.

Another limitation or point of critique focuses on the practical method I used for this research. In order to obtain my data, I conducted a literature study. I acknowledge that the data that is accessible for this project using this research method is limited, especially detailed information about specific indigenous groups and their resilience. I focus on indigenous people, who originally did not have a culture of

documenting data. It is possible or perhaps even likely that I have missed important information, simply because it was not available to me in a written form. This can cause a distorted view of reality. In a very strict sense the results from this research cannot entirely cover the indigenous population of a country, since it is likely that there are communities about which no reliable data exist, or that are perhaps not even known to men. Furthermore, from a historical perspective, most literature about the indigenous people as well as the oil booms has been written in recent years, while only little is available about more than two or three decades ago. This can also give me a distorted view of reality and the historical development of certain processes. However, on a more positive note, with the use of many and multiple types of data sources I hope that my bias or knowledge gap has been limited as much as possible.

Furthermore, using a qualitative research method inherently creates an increased chance on bias. Quantitative methods use absolute, in many cases numerical data, which leave little room for interpretation. This helps to maintain the neutrality of the researcher. However, the data I have focused on I could not categorize or judge using numbers. For instance, determining whether the score on variable such as the level of disturbance would be high or low, is certainly based on important data, but is in the end still somewhat subjective. I had to weigh the different qualitative data I encountered and then come to a final conclusion. This is not as objective as comparing numbers.

Another limiting factor is my usage of the proxy indicators. I have created these proxy indicators, since no standard indicators for the measurement of resilience exist. However, they are not called proxy indicators for nothing, since they can only try to approximate the measurement of certain variables, and are no guarantee that all that a variable encompasses has been fully and correctly measured. The results of the measurement of a variable such as political influence or the legal means the indigenous population have are a bit questionable, since they can impossible be separated from their context and external variables.

A last point of critique has to do with my worldview as a person, being in the role of a scientific researcher, coming from the West. I have formulated resilience indicators and looked at the indigenous population based on what is accepted or expected in my culture and in the scientific world. However, indigenous people have a very different perception of the world and approach what comes to them differently as well. It is therefore possible that due to my Western bias, I have overlooked resilience factors that are important for their specific case.

### *7.3.3. The applicability of the results of the research to practice*

The results this research has provided can be useful for the indigenous populations this study focuses on. The analysis of the way in which they have dealt with oil development can teach them about what their strengths and weaknesses have thus far been, and what future roads should therefore be taken.

Furthermore, this research can also be useful for the organizations that support the indigenous populations such as NGOs and multilateral organizations. These organizations have in some cases more means to make effective changes to the situation of the indigenous people.

### *7.3.4. Paths for future research*

First of all, on a more general level, future research should continue to investigate ways in which the theory of resilience can be applied to practice. By creating an extensive and diverse set of studies focusing on this, a better understanding can be created about the applicability and value of the concept of resilience.

Furthermore, this research has been a first attempt to measure the resilience of indigenous populations. Although the measurements I have taken are based on resilience theory, due to a lack of comparable studies, it is questionable whether I have really been able to capture the concept well. Other studies focusing on the same topic with a slightly different approach or research method might come up with results that can provide us with more insight in the best ways to operationalize resilience.

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