

# Investments in hydropower from a political ecology perspective.

*Case study: Hidro Santa Cruz*

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# Abstract

This thesis intends to explore and analyse the discrepancies that exist between the accepted global narratives that promote investing in hydropower projects with the argument that it will bring development, economic growth and access to clean and affordable energy in developing countries, and the demands of the local communities where the hydropower projects are being built. By using a political ecology approach, the thesis aims to analyse the existing narratives and power relations in hydropower development. The study is focused particularly in the case of Hidro Santa Cruz, a 5MW hydroelectric project in the highlands of Guatemala, rejected by the nearby communities but carried out by private companies with investments from the Norwegian Investment Fund for Development (Norfund).

Keywords: Hydropower, Guatemala, Narratives, Norway, Political Ecology, Power, Power Relations, Norfund.



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# 1 Introduction

Universal access to electricity is believed to be an engine for economic growth and sustainable development for developing countries. Moreover, access to affordable and clean energy for poor people is considered an instrument to enhance economic and social opportunities, access to technology, improved health conditions and a better quality of life. The United Nations has established the access to affordable and clean energy as one of the Sustainable Development Goals, and promotes investments in renewable sources of energy in developing countries (United Nations 2016). In that regard, many international financing institutions aim to invest in renewable energy projects in developing countries, and in hydropower plants in particular. However, many projects are faced with opposition from nearby communities and local actors, who often are disregarded before deciding to make such investments.

Thus, it is important to analyse and assess these discrepancies in order to develop better global and local policies that direct investments in renewable energy towards providing real access to electricity with the lowest impact possible to nearby communities of the construction of plants. In that sense, the use of political ecology to analyse these topics is useful and relevant, since political ecology is interested in evaluating the influence of variables acting at different scales, each related to one another, with local decisions influenced by regional policies, which are in turn directed by global politics and economics (Robbins 2004).

In this thesis, I analyse and evaluate such discrepancies with a case in particular: Hidro Santa Cruz, located in the highlands of Guatemala. Following the global trend of investing in clean ways of generating electricity, hydropower development has increased in Guatemala in the last decades. According to the National Commission of Electric Energy (CNEE 2012), the generation of electricity by hydropower in Guatemala in 2011 was over 50.26%, increasing during the rainy season up to 70% of the country's total electricity generation. Nonetheless, conflicts related to hydropower, access to electricity and land ownership are recurrent in the country. The United Nations Development Programme (PNUD 2016) estimates that there were 35 conflicts

in the country in 2015, related to the access to electricity. The history of violence and displacement of indigenous communities related to the construction of hydroelectric plants during the civil war has led to mistrust in hydroelectric development. The case of the Chixoy damn built in the 1970s as the largest hydroelectric plant in Central America, which affected more than 11,000 people of nearby communities including the death of 434 people who opposed to its construction, has become an emblematic case in the country in relation to conflicts around hydropower development (PNUD 2016).

In 2011, plans for building a 5MW hydroelectric plant in the highlands of Guatemala were affected by a strong local opposition to its construction. The project of Hidro Santa Cruz and the conflict around it became an interesting study case since it encompasses many of the factors that characterise the narratives around hydropower development: on the one hand, hydroelectric plants are a cleaner way of generating electricity; on the other hand, the construction of those plants affect local communities. In addition, international investors, among them Norwegian and Spanish financing institutions, operating under recognized international standards, are an example of the importance of taking into consideration the structural and historical characteristics of local communities before deciding to invest in projects of this nature.

In this thesis, I analyse the case of Hidro Santa Cruz from a political ecology approach in order to understand how the existing narratives on hydropower development, as a way to promote economic growth and access to affordable and clean energy, are often not aligned with the desires and demands of the local communities affected by the construction of hydroelectric plants.

## **Research Question**

This thesis will try to answer the following research question: To what extent do accepted international narratives on hydropower development and its benefits to sustainable development diverge from the existing local power relations and expressed requests of the communities directly affected by the construction of hydroelectric plants and Hidro Santa Cruz in particular?

To answer this question, I will use the case study of Hidro Santa Cruz and analyse the existing narratives and power relations from different actors involved in the project.

## **Rationale**

My decision for choosing this topic is based on various reasons. First, my personal interest for the topic which derives from three years of working for the private hydropower sector in Guatemala. There I worked as executive assistant for two different projects, and I had the opportunity to attend several meetings, seminars and workshops with different actors from the sector that allowed me to notice that there was limited accessible academic research in the field, at the time of the beginning of this research, particularly research related to analysing hydropower development and conflicts within the field of social or political sciences. The focus of most of the existing research is related to economic and engineering perspectives related to hydropower. In addition, I realized that there is a detachment and lack of communication within the sectors when it comes to assessing conflicts regarding hydropower development and policy and decision-making processes.

Furthermore, the shift in the way international cooperation is working towards financing clean energy projects in developing countries is also a relatively new topic that needs to be assessed and explored. I found interesting to learn whether the intended cooperation has positive or negative effects on the countries and regions that intends to help.

Thus, I decided to use a case study in order to understand such topics. The choice of studying the Hidro Santa Cruz project is based on how it encompasses a wide range of factors related to the aim of this research. First, hydropower development in Guatemala has increased in the last decades, as well as there is an existing industry and legal framework that encourages private and international companies to invest and to develop hydroelectric plants in the country. Second, the project faced an intense conflict that, in relation to the size and capacity of electricity generation of the plant, seemed disproportionate to the financial investment and the size of the project, meanwhile other larger plants in the country have not faced conflicts of such intensity.

Moreover, by doing research about cases such as Hidro Santa Cruz, other and future similar investments in Guatemala or other developing countries can be assessed and the discussion on the social, environmental and political aspects of hydropower investments can be broaden.

## **Thesis structure**

The thesis is divided in seven chapters. The first chapter describes the research question and the importance of the study. The second chapter is a description of the methods and data collection techniques used to carry out this research. Chapter three examines the analytical framework, based on political ecology as a field of research. It goes through a description of what is political ecology, its premises and its research interests. It also notes the importance of narratives, the use of knowledge and power relations in doing research from the political ecology perspective.

Chapter four presents a brief background on Guatemala and Huehuetenango in particular, its geography and history. It also describes the Guatemala hydropower sector and the legal framework where hydropower development is carried out. Chapter five gives an overview of international financing of hydropower for development and it focuses particularly in Norway and Norfund's investment in Guatemala.

In chapter six, I talk about narratives and power in the conflict over Hidro Santa Cruz. I draw a map of the actors involved in the conflict as well as an analysis of the conflict. Finally, in chapter seven, I draw my conclusions from the research and analysis.

# 2 Methods

In this chapter, I describe the methods used for the research, as well as the research process. The first section explains the qualitative methods of research I use and their characteristics. In the next section, I discuss the case study and its implications for the research, followed by a description about how I used interviews and literature review to obtain information, as well as a description of the process of data analysis by using narrative analysis. Finally, I mention the advantages and limitations of the research.

## 2.1 Qualitative Method

The research for this thesis is based on qualitative methods. For Denzin and Lincoln (2000:3), qualitative research is “a field of inquiry in its own right. It crosscuts disciplines, fields, and subject matters [...] It locates the observer in the world”. The qualitative researcher studies things and subjects in their natural setting, trying to make sense and interpret social phenomena and relate them to the meanings that people give to them. Moreover, qualitative research emphasizes the qualities of entities and processes and meanings that are not experimentally examined or measured in terms of quantity, amount, intensity, or frequency. Thus, qualitative researchers stress the socially constructed nature of reality, the relationship between the researcher and what is studied, and the situational constraints that shape the investigation, while seeking answers to questions about the creation of the social experience and the meaning that is given to it (Denzin and Lincoln 2000).

In order to conduct an in-depth analysis of a case such as the Hidro Santa Cruz project, I consider qualitative research methods as the most appropriate. When analysing conflicts over natural resources in a country with a very complex political and socio-economic background as Guatemala, many factors need to be taken into consideration. As these factors cannot be discovered and studied in all their complexity merely by quantitative methods, I chose to do a case study using document analysis and semi-structured

interviews. In the following section, I present the case study and explain why it is the appropriate tool for conducting my research.

### **2.1.1 The Case Study**

According to Moses and Knutsen (2007:132), “case studies are histories with a point. They are ‘cases’ of something – and the thing under study is interesting, relevant, or ‘in focus’ because of a larger theoretical concern or a specific research design”. Moreover, a case study seeks to move from a purely empirical level of exposition to a level of general statements. The use of case studies gives the researcher a more direct experience of the interaction between theory and data. In addition, case studies provide qualitative researchers with more credibility since they become better familiarised with the context of the object and subject of study (Moses and Knutsen 2007).

I chose to conduct a case study because it allowed me to focus on and examine the aspects of this case intensively, by delving into the information that I had access to, even if the availability of resources was relatively limited (Moses and Knutsen 2007). As Druckman (2005) claims, by conducting case studies, the researcher documents and describes processes and events to analyse a phenomenon, making the qualitative case study a descriptive, interpretive and analytical way of doing research. It also allows the researcher and her readers to have a broader understanding of events, processes and factors.

My decision to focus on the case of Hidro Santa Cruz was based on my previous assumption that this particular project portrays to a great extent the many contradictions that the hydropower sector in Guatemala is subject to. In addition, I also chose a case study for practical advantages when doing the research, mainly because of the relatively easy access to background information for a case that had been largely covered by the media.

In the following section I explain the process of data collection, including literature review and interviews as well as how data was analysed. In addition, I talk about my role as a researcher and the ethical considerations for this thesis.



## 2.2 Data Collection

As Druckman (2005) argues, the task of documentation provides most of the data that is needed for analysis when conducting qualitative research and case studies. The collection of data for this thesis is to a large extent based on document analysis and literature review, complementing it with data from interviews and informal conversations with relevant actors. In the following sections, each step of the data collection process is presented in detail.

I collected data both in Guatemala and in Norway. I visited Guatemala to conduct fieldwork during July and August 2012. Upon my return to Norway, I started analysing data and carried out some additional interviews and conversations during February and March 2013.

The access to interviews in Guatemala was somewhat challenging. The government authorities at the time had only been in power for six months during the time of my visit, which made it more complicated to approach them and have access to interviews with them. Moreover, the new authorities and government officials were in the process of adaptation and knowledge acquisition about their new positions, which might have been a factor that discouraged them for providing me with interviews and information. In addition, the topic about conflicts and natural resource management in Guatemala is in general a quite sensitive topic of discussion.

During the elaboration of my research project, I had planned to conduct a visit to the project site in Santa Cruz Barillas, Huehuetenango. However, when I was in Guatemala I was advised and discouraged from carrying on with this plan. The high perception of high insecurity, especially for a woman travelling alone using public transportation, as well as the still on-going conflict in Santa Cruz Barillas were among the most common discouraging arguments I was given. Therefore, I decided to conduct the interviews and look for information only in Guatemala City, and I focused on trying to approach authorities and government officials, mainly experts on the topic that worked at the ministries. I also decided to approach academic researchers, mainly from different universities, as well as independent research centres. In the section 2.2.2, I elaborate more on the interviews and the approach to the informants.

During the time of fieldwork in Guatemala, I faced some limitations. Asking for interviews to authorities was challenging, even if I had previous knowledge and was familiar with the existing networks in the Guatemalan government (I explain more about this in the section My role as researcher). Initially, I asked for appointments through ‘official’ ways, mainly a formal email that was followed by some phone calls. Most of the interviewees agreed to give me an appointment fairly easily when I mentioned I was doing research for my thesis from a foreign university. However, I faced some difficulties when I asked for interviews with officials from ministries and other governmental institutions. In such cases, I turned to my previous professional network of acquaintances that work for the current government, in order to ask for their help to get access to interviews. In addition, my link to a Norwegian university created some rejection, especially from the private sector, where I did not manage to get interviews. This rejection was, to my understanding, caused by a recent campaign of discrediting Norwegian international cooperation in Guatemala by circles formed by former army officials and right-wing businessmen and economic elites.

In Norway, the access to information is easier than in Guatemala, mainly because all official information is available for the public. This made it quite easy to obtain interviews as well as access reports and documents. In the following section, I describe in more detail the techniques I undertook for collecting data.

### **2.2.1 Literature Review and Document Analysis**

For this thesis, the analysis of documents and literature review was the main source for obtaining information. Druckman (2005) suggests that a considerable amount of information when doing research comes from archival or textual sources. Reviewing and analysing documents gives the researcher the opportunity to read and reread them at the convenience of the researcher (Druckman 2005), which makes literature review and document analysis a very useful way of obtaining information.

The process of reading and analysing documents was an on-going and extensive process that started with the preparation of the research proposal and was a continuous exercise during the analysis and writing stages of this thesis. The source of documents I reviewed included laws, national policies, government and private reports and academic studies. My main sources were laws and policies related to renewable energy and

hydropower, such as the General Electricity Law, Law of Incentives for Renewable Energies and the Guatemalan Energy Policy. In addition, to focus on my case study, I had access to documents such as the Environmental Impact Assessment for Hidro Santa Cruz, as well as reports about the conflict elaborated by the Ministry of Energy and Mining and non-governmental organizations such as Oxfam. Another type of documents that I had access as well, were reports, acts and correspondence from Norfund as financier of the project. I also focused on reading and analysing policy and official documents from Norfund and other Norwegian institutions, such as white papers to the Norwegian Parliament and the Norwegian policy on development and environmental aid. All of this, with the purpose of understanding the framework and priorities of the Norwegian international cooperation.

As secondary sources, I also read and analysed newspaper and internet articles, reports from non-governmental organizations, development cooperation entities, as well as academic articles. Perhaps an important thing to note here is that, as researcher I am aware that media plays an important role when transmitting information to the audiences, thus, depending on the focus of newspapers, online articles and other types of sources, information might be biased according to the ideological background of writers and editors. I have taken this into consideration when reading and analysing articles and news reports. When looking for newspaper and internet articles, I was aiming to find sources that were as objective as possible, and that were formal and well established. One of them is Plaza Pública, which is led by the University Rafael Landivar in Guatemala. Additionally, I sought for mainstream newspapers, such as Prensa Libre and El Periódico, which are the two main newspapers in Guatemala. Besides, I looked for and read independent sources such as blogs from civil society actors or individuals, in order to have a broader scenario and to be able to identify different opinions and narratives.

### **2.2.2 Interviews**

The last sources of empirical material for my thesis were interviews. I decided to conduct qualitative interviews to understand the different factors that led to the conflict and how actors or experts express themselves about the topic. As Fontana and Fey (2000:361) describe it, “interviewing is one of the most common and powerful ways in

which we try to understand our fellow human beings”. Or as Rubin and Rubin (2005:4) put it, “qualitative interviews are conversations in which a researcher gently guides a conversational partner in an extended discussion”. Thus, qualitative interviewing gave me the opportunity to obtain depth and details about my research topic by following up on answers given by the interviewees me during our conversations.

I conducted semi-structured in-depth interviews, four in Guatemala and two in Norway. These interviews allowed me to ask specific questions and also gave me access to different documents and reading material for my analysis. The following table presents a list of interviewees by institution.

**Table No. 1**

No.	Institution	Country
1.	Ministry of the Environment and Natural Resources MARN	Guatemala
2.	Ministry of Energy and Mining MEM	Guatemala
3.	National Commission of Electric Energy CNEE	Guatemala
4.	Institute of Agriculture, Natural Resources and the Environment IARNA, University Rafael Landivar	Guatemala
5.	Ministry of Foreign Affairs	Norway
6.	The Norwegian Investment Fund for Developing Countries Norfund	Norway

Source: Author

For the process of interviewing, I prepared two interview guides, one for doing fieldwork in Guatemala and the other one for Norway. When preparing the interview guides, I was optimistic about how much information my potential informants would share with me. However, in most cases, the guides were just used as reference, since most of the interviews became more of a conversation and the main result from them was to direct me to several documents, laws and reports that were very useful for the document analysis part.

In every interview I asked the informant if I could record our conversation. From six interviewees, four allowed me to record. With the two other interviewees, I took notes very thoroughly. Since my informants were representing institutions, all the interviews were held in a formal setting, and carried out at the workplace of the informant. The information I collected from the interviews is not considered confidential and I respected when my informants requested not to be quoted. In the following section I explain the process for analysing the data collected.

### **2.2.3 Data Analysis**

I used narrative analysis in order to code and analyse my findings. For Schutt (2012), narrative analysis focuses on how respondents make sense of events and actions in which they have participated by imposing order on the flow of experience in their lives. It focuses on 'the story itself' and demonstrates the intentions of human actors. "It makes individuals, cultures, societies, and historical epochs comprehensible as wholes" (Richardson 1995:200 cited in Schutt 2012:339). The process for analysing data using narrative analysis is based on reading the stories and classifying them into general patterns (Schutt 2012).

I started by reading some newspaper and internet articles in order to have an overview of the project and the conflict before going to Guatemala. While conducting some of the interviews and also because of my previous knowledge by working in the hydropower sector (see next section), I noted that the interviewees constantly referred to the laws and policies when they talked about the project or the conflict. Therefore, I decided to give more attention to such documents which made me notice that the laws related to renewable energies and hydropower provide a framework that allows actors involved to act under legal and established mechanisms, even though the framework is not beneficial for all actors involved. Thus, analysing documents became one of the main sources for this research.

In the following section I explain my role as researcher and the possible bias that this might entail when conducting the study.

## **2.2.4 My role as a researcher**

When conducting research, the personal biography of the researcher is an important factor to take into consideration. Personal background characteristics such as class, gender, racial, cultural and ethnic community perspectives shape how a researcher approaches the world with a determined set of ideas and a framework of analysis that specifies how she will examine a research problem (Denzin and Lincoln 2000). In that sense, in this section I present my personal characteristics that might have an influence or bias on this thesis.

My first encounter with the Guatemalan hydropower sector began in 2008, when I started working for the corporate social responsibility department of a hydroelectric plant with projects in the highlands of Guatemala. During my work there, which was mainly administrative and logistic, I started noticing very interesting social and political aspects that, to my understanding, were not taken into consideration when starting new hydropower projects. After working two years in that area, I had gained some experience with the social aspects of the sector, and later on I was offered a job as assistant to the executive director and the board of a private association of companies that generate energy by hydropower and other renewable energies. This experience enhanced my interest in the social and political aspects of the development of hydropower projects, since I was able to have access to documents, workshops and seminars about hydropower development, and I could notice how the discourse both from the government and the private developers is mainly market-oriented, leaving the social aspects aside.

Therefore, I had a great interest of writing this thesis on such topic. As I mention above, I decided to focus on a single case, since I think it portrays the many contradictions of hydropower development in Guatemala. However, I consider important to note that my previous experience working within the sector might represent a bias, although I have tried to remain as objective as possible. On the other hand, by having worked in the sector, I am well familiarized with the terminology, processes, laws and policies. Furthermore, being a Guatemalan myself can be twofold. On the one hand, with an innate knowledge of the culture and accepted behaviours, I did not need time to adapt or had difficulties with the language. On the other hand, because I am familiar with the environment of research topic, I might have overlooked details that a foreign researcher

would find interesting or relevant for the research. In the following section I describe the limitations of the research.

### **2.2.5 Limitations of the research**

As I mention above in this chapter, I faced some limitations while conducting the research. The process of collecting information might have been more complete had I been able to contact more actors and visit the project site. In addition, a larger amount of interviews could have given me a deeper insight into the problem researched.

However, as this research is an independent project with the main objective of writing a master thesis, I consider that such limitations lie in the normal spectrum of such endeavor, taking into consideration that going to the site or interviewing more people in Guatemala would have incurred in higher financial expenses. Additionally, I would have had to take additional security measures into account, considering that during the time of conducting fieldwork there were insecurity matters regarding the conflict on the site, in particular for a female researcher travelling alone considering the context of the existing gender violence and mistrust in Guatemala.

# 3 Analytical Framework

This chapter presents the analytical framework and relevant concepts for this thesis. The analytical framework uses as base the premises of political ecology, which is defined by Robbins (2004) as the field of critical research based on the assumption that humans and the environment (natural resources, ecosystems) are interconnected and that any action affects the system as a whole.

Political ecology as framework of analysis entails an interdisciplinary research approach (political science, ecology, and economy) in order to understand the relations between political and economic processes and control over the environment (Peet et al 2011). McNeil (1999:314) defines interdisciplinary research as the “formulation of a uniform, discipline-transcending terminology or common methodology: cooperation within a common framework shared by the disciplines involved”.

In the following section, I present the arguments of political ecology, its focus of study, main arguments as well as its limitations and critique. Moreover, I discuss concepts of power and power relations and explain how I will use them in the analysis.

## 3.1 Political Ecology

The term political ecology emerged in the 1970s as a way of thinking about questions of access and control over resources – the main study area of political economy - and how this is essential for understanding the forms and geography of environmental disturbance and degradation as well as the prospects for green and sustainable alternatives (Watts 2000). As Peet et al (2004:6) suggest:

(...) political ecology’s originality resided in its efforts to integrate human and physical approaches to land degradation, through an explicitly theoretical approach to the ecological crisis capable of addressing diverse circumstances and capable of accommodating both detailed local study and general principles.



The term appeared as well to represent an explicit alternative to an “apolitical” ecology (Robbins 2004) arguing that environmental problems cannot be understood in isolation from the political and economic contexts within which they are created (Bryant and Bailey 1997).

Thus, political ecology aims to evaluate the influence of variables acting at different scales, each related to another, with local decisions influenced by regional policies, which are in turn directed by global politics and economics (Robbins 2004). Watts (2000) suggests that political ecology intends to explain environmental conflict particularly regarding struggles over ‘knowledge, power and practice’ and ‘politics, justice and governance’.

For political ecologists (Bryant and Bailey 1997), environmental change is not a neutral process that can be managed only by a technical approach. Instead, it is necessary to take into consideration that environmental change has political and economic sources, conditions and ramifications that have an effect on already existing socio-economic inequalities and political processes. Furthermore, they argue that costs and benefits associated with environmental change are, for the most part, distributed unequally among actors, reinforcing or reducing existing social and economic inequalities and therefore, affecting the political and economic status quo and vice versa.

Such conditions also have political implications on the altered power of actors in relation to other actors. In that sense, political ecologists analyse the role of the state and how it tends to lend its power to dominant groups and classes reinforcing the tendency of resource accumulation and marginalization of the weaker groups through actions such as laws, taxation or policies, and creating wealth for some and impoverishment for others, while altering the ability of actors to control or resist other actors (Blaikie and Brookfield 1991).

Political ecologists have a diversity of research interests. The central themes include: a) the impact of capitalist development on the environment, suggesting that the basis of environmental degradation is due to the operations of market-based power; b) how environmental conservation is linked to struggles over environmental control, by studying the social and political implications of environmental protection, conservation and management; and, c) the political economy of the way new ecological categories

are produced, by analysing the constant emergence of new ecologies and categories which develop from human productive activity and that have implications for environmental destruction as well as for creative environmental alternatives (Peet et al 2011).

Recent political ecology research has raised questions of expertise and democracy, taking into consideration that science is essential to solving environmental problems. Since scientific accounts tend to exclude or marginalize other critical contextual ways of knowing, science can be highly partial, reductionist, and instrumental in achieving and maintaining political control over nature. Thereby, political ecology seeks to emphasize that control, discourse, representation, expertise and knowledge operate in conjunction and in complex configurations when nature is at risk (Peet et al 2011).

Furthermore, analysis in political ecology has kept a sensitivity to representation, both as a set of discourses as well as a field of practice, taking into consideration that knowledge of environmental problems is not always immediately available. Instead, the categories, priorities and interpretations of political ecology are mediated by complex systems of discourse that frame problems and concentrate on how they are imagined (Peet et al 2011).

In addition, some recent research in political ecology has explored key ideas and inquires on power and forms of rule and governance, suggesting that power over nature and society is exercised through complex forms of social control and hegemony as well as normative ideology and governmentality (Peet et al 2011). Thus, it emphasizes the importance of studying power relations in order to find the causes of social and environmental problems. Moreover, when assessing conflicts over environmental resources, political ecologists highlight the importance that the different actors involved attribute to such resources (Bryant and Bailey 1997).

Political ecology research has not escaped criticism from other disciplines. It has been criticized for not being more 'rigorous'. Vayda and Walter (1999) have questioned the value of political ecology by arguing that it concentrates on factors assumed in advance to be important and thus missing other factors' interactions which produce environmental changes. They also argue that some political ecology studies do not have any influence of politics with regards to environmental change in their arguments, but

mainly focus on politics somehow related to environmental issues and pay little attention to the environmental effects that those factors cause. Their criticism is directed to those political ecologists who choose to attribute special causal significance to political factors and not admitting that other factors are, or may be, more important sometimes (Vayda and Walters 1999). In response to this argument, Peet et al (2011) and Watts (2004) argue that “from its inception, political ecology was never a coherent theoretical position for the very good reason that the meanings of ecology and political economy, and indeed politics, were often in question”.

In conclusion, political ecology can be defined as a research approach that intends to understand the relations between the productive and economic systems and the environment (Peet et al 2011), with a strong emphasis on power relations, narratives and the ownership of knowledge.

## **3.2 Narratives and knowledge**

Political ecology research has a strong focus on narratives and the creation and use of knowledge. In this section I explore both concepts.

Narratives can be understood as a “social process or performance in action”, a narration or description of an experience with the aim of a mutual understanding of the speaker and listener. At a more abstract use, narratives refer to “structures of knowledge and storied ways of knowing” (Cortazzi 2001:384 in Paschen and Ison 2014:1084).

“Narratives do not mirror but rather construct reality” (Paschen and Ison 2014:1087).

According to Roe (1994:36-37), narratives and specifically policy narratives,

describe scenarios not so much telling what should happen as about what will happen –according to their narrators- if the events or positions are carried out as described. Even when their truth value is in question, these narratives are explicitly more programmatic than myths and have the objective of getting their hearers to assume or do something.

A narrative told as story, usually has “a beginning, middle and end (or premises and conclusions, if cast as an argument) and revolves around a sequence of events or positions in which something is said to happen or from which something is said to follow.” (Roe 1994:36). However, according to Roe (1989:252), “Not every public narrative need be conventional in having a beginning and an end or premises and a conclusion”.

The use of a narrative approach to policy and decision-making brings together diverse knowledge(s) from different actors (Paschen and Ison 2014). Roe (1989:267) argues that “the structure of stories can be formally analyzed and compared across narratives in such a way that the analysis and comparison are themselves a story.” He also claims that “narrative policy analysis is not completely free of its own kind of storytelling, but in this sense it is no different than the rest of the analyst’s toolkit.”

On the other hand, political ecologists are concerned with how one comes to know about the environment, how it is defined and categorized, as well as how environmental problems are represented, acknowledged, and defined. For Peet et al (2011: 34), these ‘knowledges’ are regularly constructed through discourses, what they call “frameworks that embrace particular combinations of narratives, concepts, ideologies, and signifying practices”. For them, the arguments over the given categories of ecology, are always also arguments over social and political control of nature. They argue that “behind every story of environmental crisis, therefore, is a narrative of political and social control” (Peet et al 2011: 37).

In that sense, political ecologists claim that the environmental narratives delimit and direct social and political imperatives and opportunities. That is, who produces knowledge and where this knowledge is produced is crucial for the legitimacy and hegemony of certain kinds of narratives and the ‘conventional wisdom’ that frequently is taken for granted (Peet et al 2011). Moreover, political ecologists question the way in which certain kinds of ecological knowledge are selected and validated, as well as how environmental problems are narrated and structured, and the way certain assumptions and practices are taken for granted and become normal (Peets et al 2011).

Additionally, political ecology questions how ideas are developed and understood by different actors, and how discourses are developed to facilitate or block the promotion

of interests of a specific actor (Peet et al 2011). When studying environmental problems, political ecologists try to show how ideas and narratives about nature and society are mobilized (Robbins 2004).

Watts (2000) claims that there is a recognition that environmental knowledge is distributed unevenly within local societies and it is not necessarily right or best just because it exists. In addition, he claims that traditional or indigenous knowledge may often be of relatively recent invention, even though sometimes it is taken for granted. He suggests “most ‘knowledges’ are not simply local but complex hybrids drawing upon all manners of ‘knowledges’” (Watts 2000:263).

In sum, political ecology is concerned with how categories and knowledge of the environment are produced. It is also concerned and interested in how this knowledge is shared and how actors appropriate certain kinds of knowledge in order to exert power. In the following section I talk more about power and its relevance for my analysis.

### **3.3 Power**

As I mention in the previous section, political ecology research is interested in the way power is exercised especially within individuals, communities and societies. As Peet et al (2011) argue, “when people understand themselves, regulate their activities and help oversee the actions of others, they become embodied power rather than just objects of external force”. Thus, by studying power, political ecology “highlights the means by which differentiated social actors gain access to and control over resources through institutionalized practices” (Watts 2000: 269).

Therefore, the concept of power is crucial when conducting research using the political ecology approach. Power over nature and society is exercised not only through complex forms of social control but also as a normative ideology of governance. Moreover, and as Peet et al (2011) claim, power in environmental management is commonly understood as “the capacity of a polity or state to control the actions of people (or

organizations or firms) within its jurisdiction, what theorist Michel Foucault referred to as ‘sovereign’ power” (Peet et al 2011:31).

Furthermore, the analysis of environmental problems inevitably involves questions of power and governance. As Peet et al (2011) put it, a mechanism that justifies and enforces control is essential to enclose common resources, where ‘property’ is given the force of law so that ‘private’ owners and the state have the power to enforce exclusion. In that sense, they argue that power has also come to be understood as the way individuals come to obey or take for granted ‘property’ laws, internalizing certain forms of control and authority as normal and natural (Peet et al 2011). Additionally, and as Bryant and Baily (1997) claim, when a political ecologist studies power, it is very common that she concludes that it is the relatively poor and weaker grassroots actors who get a disproportionate share of the direct environmental problems compared with their wealthier and more powerful counterparts.

Political ecologists understand that unequal relations between actors are a key factor in understanding patterns of human-environment interaction and the associated environmental problems (Blaikie and Brookfield 1991). In this sense, and to understand power in environmental conflicts, Blaikie and Brookfield (1991) suggest that there are various ways in which one actor may seek to exert control over the environment of other actors. I focus here on their argument that an actor can attempt to control the access of other actors to certain environmental resources, with the objective to monopolize a valued environmental resource to ensure that the economic benefits that are associated with its exploitation go largely or exclusively to the most powerful actor. An example of this is how post-colonial states have demonstrated their power over other actors in the sense that they have been able to determine who exploits selected environmental resources, the conditions under which those resources are exploited, and often even for what purposes they are used (Blaikie and Brookfield 1991).

Another way of exercising power is when an actor seeks to exert control over the environment of others through control over the societal prioritization of environmental projects and problems. An example of this is how actors inside and outside the state can influence the environmental management priorities of state agencies in order to favour the allocation of financial and human resources to certain environmental projects and problems (Blaikie and Brookfield 1991). In addition, power is about control over

material practices, but it is also linked to the attempted regulation of ideas, where actors typically seek to legitimate the triumph of their individual interests over the interests of others through an attempt to assimilate them to ‘the common good’ (Blaikie and Brookfield 1991).

In this thesis I study how power is exerted by different actors through established mechanisms. In that sense, I use Hayward’s (1998:1) power definition as “a network of social boundaries that delimit the field of what is possible for all actors”. By social boundaries, she refers to mechanisms of power such as laws, rules, norms, institutional arrangements, and social identities and exclusions that constrain and enable action for all actors. She argues that power mechanisms function more as boundaries than as instruments that actors possess and use, in the sense that they are constitutive of even highly strategic forms of action.

She also claims that the absence of interaction, communication, and other readily apparent ‘connections’ can as well be evidence of the exercise of power. Thus, any limit to action that is to a great extent the product of human action becomes a valid subject for critical analysis. For Hayward, to exercise power is to act upon social limits to action, that is to act on legal, conventional, and other social boundaries that define the field of what is possible, for another or for the self (Hayward 1998:18).

Hayward (1998) argues that relevant mechanisms of power include limits to action that the ‘powerful’ actors might not plausibly be able to ‘have’ or to ‘use’. Additionally, this way of power analysis draws attention to how power mechanisms differentially shape the field of what is possible, not only for actors typically identified as ‘powerless’, but also for those who seem ‘powerful’. Thus, this way of power analysis intends also to draw attention to the ways the exercise of power constrains and enables all social action.

In the analysis section, I link my findings with the former definition of power and power’s mechanisms in the sense that it is noticeable how the different actors use mechanisms such as laws, policies and documents to act upon what is legally and socially accepted and in this way exerting power over others.

In the next section I explore some arguments about power relations and the study of those in order to analyse conflicts over environmental (or natural) resources as well as the relevance of analyzing power relations for this research.

### **3.3.1 Power relations**

The objective of political ecologists when assessing power relations is to achieve a well-rounded assessment of different types of actors, including their political strengths and weaknesses in relation to other actors (Bryant and Bailey 1997). Bryant and Bailey (1997) argue that by emphasizing the role and interaction of actors in environmental change and conflicts, the central importance of politics in political ecology is reiterated. For them, there are two things that are at the centre of any understanding of politics: a) an appreciation that politics is about the interaction of actors over resources – environmental or other kind-; and, b) a recognition that even weak actors have some power to act in the pursuit of their interests. This last point, they suggest, points out that politics is a process in which actors play a central role and the interactions of actors is the core of politics. As Giddens (1979:149) claims, ‘all power relations, or relations of autonomy and dependence, are reciprocal however wide the asymmetrical distribution of resources involved, all power relations manifest autonomy and dependence in both directions’.

For this thesis, I use Hayward’s (1998:15) definition of power relations. She conceptualizes power relations as “any relationship involving two or more actors positioned such that at least one can act within or upon power’s mechanisms to shape the field of action of the other”. By this view, the focus of the study of power lies on the ways in which power shapes and limits freedom of action. Therefore, analysing and criticizing power relations requires looking beyond the distribution of political resources and their intended use in interaction (Hayward 1998).

For Hayward (1998) power relations are necessary for promoting a range of social goods. In that sense, analysing power relations is an important means to identify and



criticize strategies for change, as well as differential forms of social constraints on freedom. For her, action in social life is invariably constrained and enabled by boundaries that impose a conventional order on what people might do and be. Therefore, critical analysis of power's effects on freedom should centre on significant differences in social enablement and constraint, and on the change of asymmetries in the field of what is possible and allowable.

In that regard, Hayward (1998:20) suggests that the critical question to be asked by those who study power and power relations should focus on "whether the social boundaries defining key practices and institutions produce entrenched differences in the field of what is possible for those they significantly affect". I use this approach to draw an analysis on how power relations are relevant to my case study as well as how those actors make use of the accepted legal mechanisms -laws, policies and codes- in order to exert power.

### ***Summary***

In this chapter I present the analytical framework, based on the political ecology research approach, defining ecology as the field of critical and interdisciplinary research that intends to understand the relations between the productive and economic systems and the environment and to explain environmental conflict, with a strong emphasis on power relations, narratives and the ownership of knowledge (Peet et al 2011; Watts 2000). Furthermore, concepts of narratives, knowledge, power and power relations are presented.

# 4 Hydropower development in Guatemala

This chapter presents relevant background information about Guatemala and its history of conflicts over land and natural resources, as well as a background section about the area of Huehuetenango in order to understand the historical and structural factors that have influenced the conflict over hydropower development in the country. Additionally, I explain the structure of the hydropower sector in Guatemala.

## 4.1 Background on Guatemala

### 4.1.1 4.1.1 Geographical characteristics

The Republic of Guatemala is located in Central America, with a territorial extent of 108,889 km<sup>2</sup>. It borders with Mexico on the North and West, with Belize and the Honduran Gulf on the East, with El Salvador and Honduras on the South East, and with the Pacific Ocean on the South (PNUD 2014). Guatemala is divided in 22 departments, which are divided in 334 municipalities. The capital is Guatemala City and it has a population of 13,636,487 inhabitants, of which 62.4% lives in poverty, 29.6% in extreme poverty and 3.6% in severe poverty (PNUD 2014).

Despite being a small territory, Guatemala has extensive natural and cultural diversity, with a great variety of ecosystems and species. The country has an irregular topography with 37 volcanoes and two mountain ranges: Sierra Madre and Cuchumatanes. Its continental waters drain through three watersheds: the Pacific, the Caribbean and the Atlantic, with a group of 38 water basins. The most important rivers are Usumacinta, Motagua, Sarstun, Ixcán and Polochic (Hurtado Paz y Paz 2006).

Map No. 1: Map of Guatemala



Map No. 3834 Rev. 3 UNITED NATIONS  
May 2004

Department of Peacekeeping Operations  
Cartographic Section

Source: United Nations (2016b)

## 4.1.2 Historical background

Guatemala was declared independent from the Spanish Crown in 1821, after being a colony since 1524. However, the country has continued with the colonial structure based on the agricultural production system, maintained mainly by indigenous forced labour (PNUD 2014).

In 1871, some reforms to this structure were taken for the creation of a national state. However, it was until the revolution of October 1944 that the country had a transition from a liberal state to a developmental state. Between 1944 and 1954 Guatemala experienced a political program that established and promoted democratic and egalitarian foundations. The election of Juan José Arévalo in 1944 and Jacobo Árbenz in 1951 as presidents was the first time that democratic and civilian powers were elected. This was a result of the organization and mobilization of popular sectors, workers and peasants that were led by middle class political parties, creating structural changes in the country (PNUD 2014).

During the government of Juan José Arévalo steps were taken that altered traditional powers, giving more independence to workers and naming the State as centre of social life. With the government of Jacobo Árbenz, there was an attempt to modernize the agricultural work, however, within the context of the Cold War, the government encountered the resistance of the oligarchy and big corporations from the United States of America, mainly the United Fruit Company (PNUD 2014).

In the context of the Cold War and inspired by anticommunists ideals, Árbenz was overthrown in 1954. As consequence, spaces for political, social and economic participation that were achieved in the previous years, were reverted and repressed (PNUD 2014). During the 1960's, a guerrilla movement was consolidated as a result of dissatisfactions with the abrupt end of the national-popular project promoted in previous years as well as intense military repression (PNUD 2014).

From 1960 until 1996, Guatemala suffered a civil war, which was one of the most violent conflicts in the region during that time, with severe human right violations, entire indigenous communities massacred and many people forced to escape to neighbor countries and to live in political exile. This violent civil war left 42,275 mortal victims

of which 83% were indigenous Mayan and 17% ladinos or mestizos (CEH 1999). The Historical Clarification Commission (CEH 1999) estimates that during the 36 years of war, there were 200,000 victims, including dead and missing persons.

In 1985, Guatemala transitioned to a democracy, with Vinicio Cerezo as the first elected civilian president after a long period of military authoritarian governments. The current constitution, approved in that same year, included important reforms to promote social and political participation (PNUD 2014). Some efforts started being taken by the government of Vinicio Cerezo to end the civil war, which finally ended with the signature of the Peace Accords in 1996 during the government of president Alvaro Arzú (IDIES 2011).

From 1997 until 2000, there were significant changes in the structure and bureaucracy of the state, some as result of the Peace Agreements and some others as result of the neoliberal vision about modernizing the state. In 1998, public service companies were sold to private actors. Examples include the electricity company that was sold to a group of companies from Spain, the United States of America and Portugal. Other public companies were also sold, including the telephone and postal companies (PNUD 2010).

In 2011, Otto Perez Molina, from the Patriotic Party was elected as president for the period 2012-2015. Perez Molina was a retired army general who held leadership positions during the civil war and who was representing the Guatemalan State during the signature of the Peace Accords in 1996. In the last months of 2015, at the end of his term, several corruption scandals were brought to light, leading to massive social protests which finally led to his resignation and further incarceration by Guatemalan authorities. In the general elections of 2015, Jimmy Morales, a former comedian and with no previous public office experience, was elected president of the country.

Guatemala faces several social, political and economic problems, such as poverty, corruption, organized crime, insecurity, mistrust in governmental institutions, gender violence as well as agrarian problems.

Regarding socio-environmental conflicts in Guatemala, according to a recent study of UNDP, there has been a considerably high increase in opposition and conflicts due to natural resources, mainly lakes and rivers, forests and minerals. This increase has gone upwards at a 9.7% annual rate, going from 4.3% in 1997 to 16.2% in 2013 (PNUD

2016:158). According to a recent report from UNDP, socio-environmental conflict in rural areas in Guatemala and its impact on the affected rural territories, is strongly related to the appropriation of community lands, little transparency of buying land from peasants, as well as lack of information and prior consultation, in addition to the lack of participation of government institutions in the elaboration and approval of Environmental Impact Assessments, granting licenses too fast and law-making without consensus from those affected (PNUD 2016).

### **4.1.3 Huehuetenango**

The department of Huehuetenango is located in the North-West of Guatemala. It comprises an area of 7,403 km<sup>2</sup>, and it is divided into 32 municipalities or towns. The name Huehuetenango comes from the Nahuatl language and it means ‘old walled place’. Before the Spanish invasion, the name of the region was Chinabajul, which means ‘the hole of the mole’ in Mam language (Castañeda 1998).

Huehuetenango borders Mexico with almost 50% of its perimeter. The department has a varied topography with mountains and peaks that go up to 3,700 meters above sea level, and low lands that go up to 300 meters above sea level. The territory is crossed by the mountain range Sierra de los Cuchumatanes (Castañeda 1998). Huehuetenango has six main basins, which are: Cuilco, Seleguan, Nentón, Pojóm, Ixcán and Salinas. Besides these main rivers, there are many secondary rivers, small brooks and streams such as the river Cambalam (IDIES 2011).

Almost 65% of the population in Huehuetenango are indigenous (INE 2004). The main indigenous groups are Mam, Q’anjob’al, Jacalteco and Chuj. Most of the population live in rural areas and the main urban areas are located in the Huehuetenango municipality.

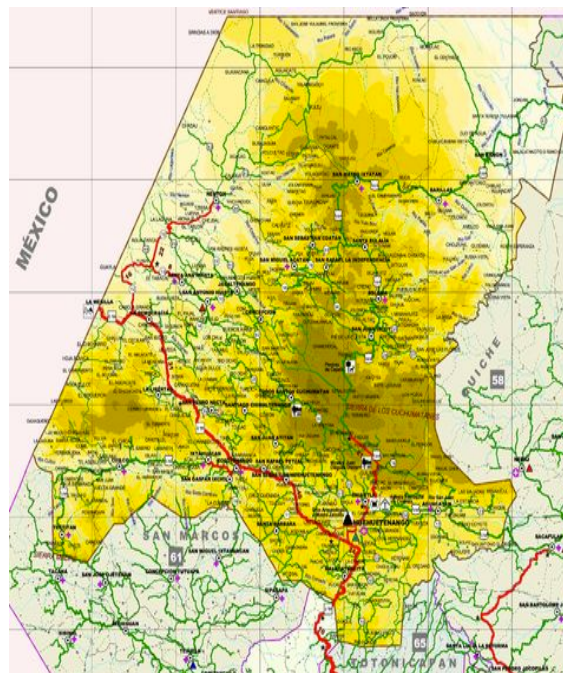
A study from Universidad Rafael Landívar in Guatemala (IDIES 2011) shows that Huehuetenango is the third poorest department in Guatemala and that the indigenous municipalities are the most affected. The study claims that 97% of the population of the Mam group live in poverty and 64% in extreme poverty, particularly in the municipalities of Santa Barbara and San Gaspar Ixil. The economy of the department is 80% based on agricultural, livestock, artisan and commerce activities. The main

agricultural products are corn and beans, which are used for self-consumption (IDIES 2011).

In terms of basic services, the urban areas have 90% access to piped water, however, the rural areas only have access through rivers, lakes or trucks that distribute water (IDIES 2011). In terms of electrification, in the year 2011, 86.2% of the population in Huehuetenango had access to electricity. In Barillas, the access to electricity was only 54.6% (MEM 2011).

The structure of land ownership in Huehuetenango is characterized by an uneven distribution. Castañeda (1998) argues that land tenure and tenure security are problematic issues in Huehuetenango. Different regimes such as state owned, municipal owned and private property coexist with tenant farming (colonato) and private renting and usufruct in the area. Uneven distribution of land in Huehuetenango as well as unequal access to resources are often a source of conflicts in the department (Castañeda 1998). Additionally, the land structure of the department features numerous small size properties that are not enough to fulfill the consumption needs of a family, and soil productivity is very low (Castañeda 1998).

**Map No. 2: Huehuetenango**



Source: Zonu (2014)

#### **4.1.4 Impacts of the civil war in Huehuetenango**

During the 1960s, the economic activity of most of the population in Huehuetenango was based on subsistence agriculture, and families' income was complemented with salaries obtained by seasonal migration work in coffee, cotton and sugar cane plantations at the Pacific coast (Castañeda 1998). In the beginning of the 1970s, cooperatives were established in the low lands of Huehuetenango, Quiché and Petén. Most of the unused land was distributed in large land properties (latifundios) and given to public workers, army officials and multinational companies (Castañeda 1998).

Around 1979, the presence of the guerrilla in most of the department of Huehuetenango was very evident. The main attacks of the army in the region of the Ixcán took place in 1981 and at the beginning of 1982. The army attacked peasant communities, making selective extermination in villages, and accused indigenous communities of collaborating with the guerrilla movement (Castañeda 1998). In 1982, the army implemented a strategy known as “scorched earth” (tierra arrasada), where entire villages were eliminated. This strategy of the army included torture, rape, murders, and many other violations of human rights. Because of the “scorched earth” strategy, many people living in the villages went on exile to Chiapas, Mexico and lived there as refugees until after the Peace Accords were signed in 1996, when they were able to return to Guatemala.

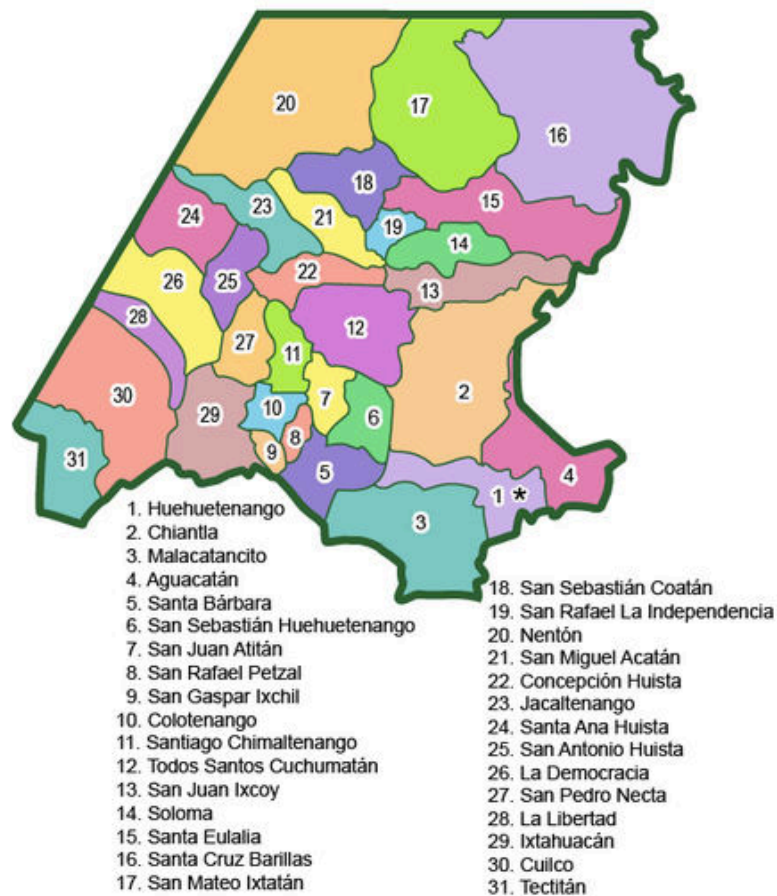
According to Castañeda (1998), Barillas was one of the most affected towns in Huehuetenango during the armed conflict. It was also one of the most affected by displacements to Mexico.



#### 4.1.5 Santa Cruz Barillas

The official name of this municipality is Barillas, but residents and non-residents refer to it as Santa Cruz Barillas. It is the farthest municipality from the city of Huehuetenango. The municipality of Barillas has an extension of 1,112 km<sup>2</sup> and is one of the northernmost and largest territories in Huehuetenango. Barillas borders to the North with Mexico, to the East with Ixcán and Santa Eulalia, to the South with Santa Eulalia and to the West with San Mateo Ixtatán (Castañeda 1998).

**Map No. 3: Municipalities of Huehuetenango**



Source: Zonu (2014b)

Barillas has an abundant hydrographic system, including the main rivers Barillas, Ixcán, Chancolin, Xoxlac, Amelco, San Ramón and Q'amb'alam or Cambalam. There are two lagoons, Seca and Maxbal, and three small lagoons, Yolhuitz, Yalancu y Poclac (Castañeda 1998). The municipality of Barillas was founded in 1888 and the main economic activities include agricultural production, mainly coffee and cardamom. The population is predominantly indigenous of the groups Chuj, Q'anjob'al, Jacalteco and Mam) (Castañeda 1998).

In the previous sections I have presented a brief historical and political background of Guatemala and Huehuetenango. In the following section I explain the Guatemalan hydropower sector, for the reader to understand the complexity of the sector as an introduction to the conflict over Hidro Santa Cruz.

## **4.2 The Guatemalan hydropower sector**

Hydropower development in Guatemala began in the late 1800s in the large farms of the country. Currently, hydropower development is mainly in hands of private companies, encouraged by a legal framework adopted in the second half of the 1990s and that promotes private investments in renewable energy projects.

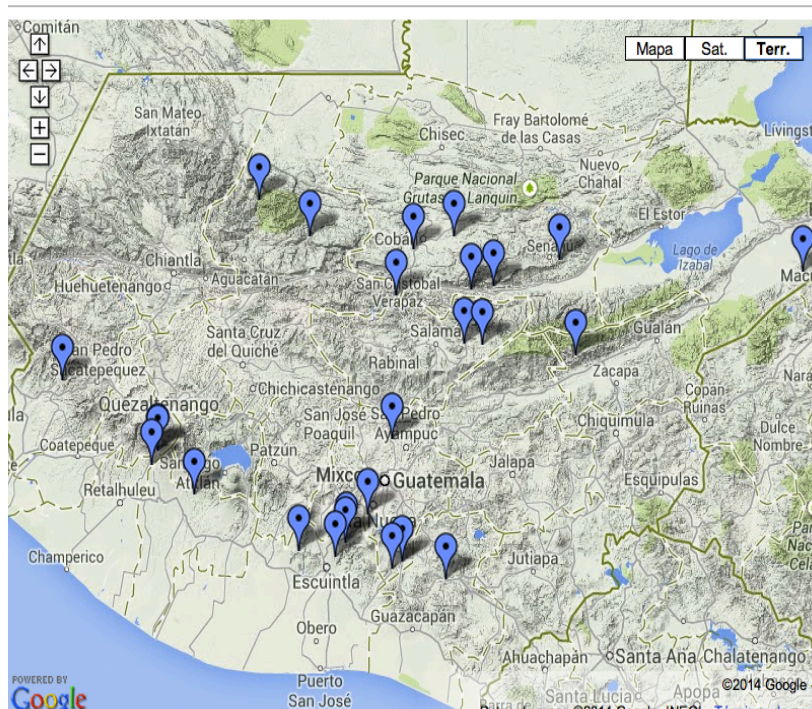
According to the Ministry of Energy and Mines (MEM 2012b), Guatemala has a hydroelectric potential of 6,000 MW of which only 15% is used to generate electricity. In 2011, the generation of electricity by hydropower was over 50.26% and during the rainy season, it was over 70% of the total electricity production (CNEE 2012). The rest of the electricity is generated through bunker 22.31%, coal 13.32%, and biomass 10.73%. Nevertheless, only 85.6% of the population had access to electricity in 2012 (MEM 2012b).

The main hydrological resources are located in the North-East and North-West of the country. Most of the hydroelectric plants are built and operating in the North-East part of the country, where, paradoxically, the access to electricity is the lowest, with only 35.4% of coverage for the department of Alta Verapaz (MEM 2012b). Additionally, the majority of the population of that area of the country is indigenous and rural, with a lack

of access to basic services such as land ownership, education and health services, among others (MEM 2012b).

In this section, I describe a brief history of hydropower development in the country as well as the current situation and legal framework of the electricity market in the country.

**Map No. 4: Hydroelectric plants in Guatemala**



Source: CNEE (2014)

#### **4.2.1 A brief history of hydropower development in Guatemala**

The development of hydropower in Guatemala started at the end of the 1800s and beginning of the 1900s, in response to the modernisation policies for the export of agricultural products and large coffee plantations. The first hydroelectric plants were built in the large farms of that time. The National Commission of Electric Energy was

created in the 1940s for planning and building big and small hydroelectric plants. During the 60's and 70's, population growth was accelerated and with it a larger need for access to electricity, which was also affected by the oil crisis. This led to the electric sector to map and plan potential hydropower plants (PNUD 2016).

In 1975, the National Institute of Electrification (INDE) presented the project of the construction of the Chixoy hydropower plant, the largest hydroelectric plant in Central America with capacity to generate 300 MW. This project was financed by the Interamerican Development Bank, the International bank for Reconstruction and Development and the World Bank. The government, through INDE, offered to give land to the communities displaced by the construction of the plant, however, the community Rio Negro did not accept the government's proposals and in 1978, people from this community moved to higher lands close to the river. To displace this community, the government used violence and forced negotiations affecting more than 11,000 people of the nearby communities (PNUD 2016).

During the 1970s and 1980s, the construction of hydropower plants was suspended due to the most critical moments of the civil war. In the beginning of the 1990s, the sugar industry began building hydropower plants as private producers. As mentioned before, the privatization of electricity came in 1996 with the General Law of Electricity, and as of 2011, there were 145 hydroelectric private projects in different phases of study, development and request of financing by international and national institutions (PNUD 2016).

### **The emblematic case of the Chixoy hydroelectric plant**

The Chixoy hydroelectric plant was part of the plan of the Guatemalan Government and the business elite of the country to supply the electricity demands for a fast-growing population. However, the construction of the 300MW plant came with fierce opposition from the affected communities, particularly the Rio Negro community. As a result of this conflict, 11,833 people were affected and 434 people were killed during the construction of the plant (PNUD 2016).

From 1993, survivors from Rio Negro have asked a compensation for the victims of the displacement from the Chixoy hydroelectric plant, however there were little advances in that regard in the following years. In 2011, the Guatemalan Congress approved an initial sum of US\$10 million for compensating the affected communities but, again, there were little actions in that regard. In 2014, and after financing conditioning from the Government of the United States as well as a sentence from the Interamerican Court, the Public Policy for Reparation of the Affected Communities by the Construction of the Chixoy Hydroelectric<sup>1</sup> published in the Government Agreement 378-2014. This policy should be implemented between 2015 and 2029. Additionally, in November 2014, Otto Pérez Molina offered a public apology in the name of the Government of Guatemala to all the affected communities by the construction of the Chixoy plant (PNUD 2016).

The case of the Chixoy plant is emblematic in the sense that indigenous people affected by the construction of the plant, stood up and claimed their rights of compensation for the displacement and killings that they suffered by the construction of the plant. In addition, and according to a recent report from UNDP, this case shows the inability of the Guatemalan Government to listen and respond to the claims of affected indigenous communities (PNUD 2016). As the UNDP Human Development Report 2016 argues (PNUD 2016:246),

...the case of the Chixoy hydroelectric shows us that economic growth and production of energy with renewable resources are not sufficient if these are not developed in a framework of listening and respecting rights of the communities whose lives, identity and history are closely linked to the intervention territories. It shows us that intolerance, stigmatisation and repression cannot continue being the methods to use in the face of the demands of the rights of the people<sup>2</sup>.

In the following section, I describe the legal and institutional framework for hydropower development in Guatemala.

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<sup>1</sup> Política Pública de Reparación a las Comunidades Afectadas por la Construcción de la Hidroeléctrica Chixoy in Spanish.

<sup>2</sup> My translation.

## 4.2.2 Current legal and institutional framework

A brief overview of how the electric sub sector, the hydropower sector specifically, is structured in Guatemala is relevant to contextualize the free-market framework that allows private and foreign companies to invest in hydropower projects with very few restrictions and requirements.

Regarding the legal and institutional framework that rules the hydropower sector in Guatemala, the government of Otto Pérez Molina launched the Energy Policy 2013-2027, which states that one of its main objectives is to diversify the energy supply in Guatemala by prioritizing the use of renewable energies, as well as expanding the access and offer of electricity at the national level. Another objective of the policy is to “contribute to the sustainable development of the communities where the energy projects are carried out” (MEM 2013:41).

The electric sector in Guatemala is regulated by the General Law of Electricity of 1996 (Decree 93-96), which establishes the legal and institutional framework for any operation related to production, transport, distribution and selling of electricity in the country. There is a rulebook for this law, which indicates the duties and responsibilities of institutions within the sector, as well as procedures for authorizations and sanctions, among others.

The Law of Incentives for the Development of Renewable Energy Projects<sup>3</sup> (Decree 52-2003) was created in 2003. Its main objective is to promote the development of renewable energy projects and to establish fiscal, economic and administrative incentives to achieve such objectives. The main incentives established by the law are the exemption of up to ten years from import tariffs, including the value-added tax<sup>4</sup>; charges and consulate rights over the import of machinery and equipment that is exclusively used for the generation of energy during pre-investment and construction

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<sup>3</sup> Ley de Incentivos para el Desarrollo de Proyectos de Energía Renovable in Spanish

<sup>4</sup> Impuesto al Valor Agregado IVA in Spanish.

periods. Additionally, the law establishes an exemption of up to ten years of the payment of income tax<sup>5</sup> (MEM 2012b).

Regarding authorizations for installing power plants, the General Law of Electricity states that the installation of power plants is relatively unrestricted, since it does not require authorization from any governmental institution, unless the construction of the plant involves the use of public resources or properties. However, in such cases, authorities only require an authorization from MEM when the potency of the power plant exceeds 5 MW. In the case that the power plants with a potency lower than 5MW, it needs to be registered by the General Direction of Energy at the Ministry of Energy and Mines, and perform an Environmental Impact Assessment approved by the Ministry of Environment and Natural Resources (MARN) (MEM 2012b).

The electricity sector in Guatemala comprises a wide range of institutional actors that are involved in the process of generation, selling, distribution and regulation of electricity in the country. The legal framework is also based on the role of each institutional actor, which are described below.

The Ministry of Energy and Mines (MEM) is responsible for formulating and coordinating policies, government plans and programs related to the electricity sector. MEM is also in charge of granting authorizations for installing of electricity generation plants, as well as granting the authorization to the companies that provide services of transportation and distribution of electricity. In addition, MEM is responsible for writing evaluation reports about projects of rural electrification and to register the large users and agents of the wholesale market agents (see below). This ministry is in charge of promoting and creating spaces for the use of renewable energies and to encourage the swift from fossil fuels in the production of electricity (MEM 2012b).

The National Commission of Electric Energy (CNEE) was created in 1996 and it is the technical institution of the MEM in charge of the regulation of the electrical sector. CNEE is responsible for making sure that the objectives and rules of the General Law of Electricity are fulfilled, and it has the power to enforce sanctions to those actors who do not comply with the regulations. It is responsible for the protection of user rights as well

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<sup>5</sup> Impuesto Sobre la Renta, ISR in Spanish.

as for preventing actions that threaten a free market for electricity, as well as abusive or discriminatory practices. It is in charge of defining prices for the transmission and distribution of electricity, and the methodologies used for doing so. In addition, CNEE is responsible for settling any controversy or conflicts that may occur between agents of the sector and it acts as arbitrator between the parties (MEM 2012b).

The Wholesale Market Administrator<sup>6</sup> (AMM) is a private institution that coordinates the transactions between the participants of the wholesale market. Among its main responsibilities is the coordination of the operation of power plants, international connections and transport lines. It is also responsible for establishing the prices of the market in the short-term for the potency and energy transfers among the agents, when these are not included in long-term contracts and for guaranteeing the security and supply of electricity in the country (MEM 2012). The wholesale market consists of power plants with a potency higher than 5MW; distributors that have at least 15,000 users; transport companies that have at least 10MW of transport capacity; sellers, including importers and exporters; large users that have a potency demand larger than 100KW (MEM 2012b).

The energy market in Guatemala is based on free-market principles; however, it has an established regulation and scheme. Distributors can hire supply through generators or sellers; whilst the large users can hire supply through a generator, distributor or seller. The users under the regulated market can only obtain electricity supply through the distributor assigned to their zone (MEM 2012b).

The Guatemalan electric system is divided in the generation system, transport system and the distribution system. The first one represents the offer of electricity, and it is comprised by hydropower plants, steam turbines, gas turbines, internal combustion motors, and geothermal power plants. It is important to note that the energy generation activities are not tied to authorization of MEM, only those power generation plants that use public resources, meaning hydropower and geothermal plants. Every plant is in charge of their operation and it is coordinated by AMM (MEM 2012b).

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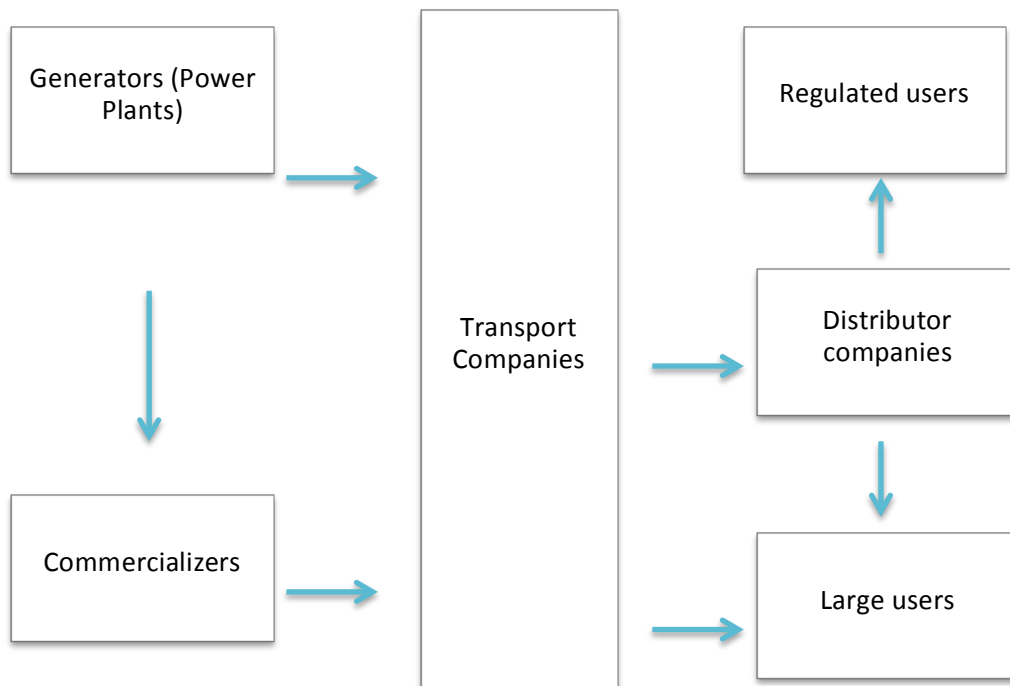
<sup>6</sup> Administrador del Mercado Mayorista in Spanish.



The transport system refers to the electrical energy offer and it is comprised of a main system and a secondary system. The main system is shared by the generators and includes the interconnections to the grid. The secondary system comprises the electric infrastructure used by generators for energy supply to the main system; the secondary system is the way through which a generator interconnects to the transmission net. The operation of the transport system is done by the transport companies and coordinated by the wholesale market. The transport system is also interconnected to Mexico since 2009, through the Central American Electric Interconnection (SIEPAC) and the interconnection between Guatemala and Belize. Transport activities are under the authorization of the MEM if public resources are used (MEM 2012b). The distribution system comprises distribution lines, substations and distribution nets. The operation of distribution activities is done by distribution companies and coordinated by the AMM (MEM 2012b).

The national grid (Sistema Nacional Interconectado) obtains electricity produced by local generators as well as some electricity imported by the Electric Regional Market (MER) or the Guatemala-Mexico Connection. The local generators include the National Institute for Electrification (Instituto Nacional de Electrificación INDE), which has nine state-owned plants. Hydropower development has to be approved and obtain resolutions by the Ministry of Energy and Mines and the Ministry of Environment and Natural Resources. It is regulated by the National Commission of Electric Energy (Comisión Nacional de Energía Eléctrica), and transmission and distribution of electricity carried out by private companies.

**Figure 1. Guatemalan Electricity Market.**



Elaborated by author. Source: MEM (2012).

The previous description of the Guatemalan electric sector shows how the market is not designed to respond to the demand and need of access to electricity from the general public, especially those more isolated rural communities. It is clear that the Guatemalan market is created to fit a free-market neoliberal energy supply and demand, tailored to the benefit of private companies. In chapter six, I discuss more about this, though I considered relevant for the reader to have a background of the legal and institutional framework for hydropower development.

In the following chapter, I discuss international financing of hydropower, and the Norwegian financing of Hidro Santa Cruz as well as the Norwegian cooperation in Guatemala.

# 5 International financing of hydropower for development

As mentioned in above, access to clean and affordable energy is one of the Sustainable Development Goals defined by the United Nations, and investing in renewable ways of producing energy is highly encouraged, not only for providing electricity to rural and remote areas, but also for reducing the environmental damage caused by burning fossil fuels. In that sense, the large financial institutions such as the World Bank, have developed global standards that financing institutions are encouraged to follow before committing to invest in projects in developing countries. Moreover, not only large financial institutions invest or lend financial resources in infrastructure projects in developing countries, but developed countries do as well. Such is the case of Norway and its development fund, Norfund who have investments in Hidro Santa Cruz. In this section, I will give an overview of the aforementioned global standards, how the Norwegian Fund for Development works and how it is involved in the Hidro Santa Cruz project by being one of the mains financiers of the project.

One of the aforementioned global standards was developed by the International Finance Corporation (IFC), which is part of the World Bank Group, which also invests in private companies in developing countries where the financial and security risks are high, all of this with the aim, according to their webpage, of promoting competitive markets. The IFC argues that its Performance Standards provide guidelines on how to identify risks and impacts, and that such standards are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities (IFC 2012).

The IFC Performance Standards are divided in eight and refer to different stages and aspects of potential investments in developing countries. For the purposes of this thesis, I will not go in depth in each of them, but for a general overview, the eight performance standards are: 1) Assessment and Management of Environmental and Social Risks and

Impacts; 2) Labour and Working Conditions; 3) Resource Efficiency and Pollution Prevention; 4) Community Health, Safety, and Security; 5) Land Acquisition and Involuntary Resettlement; 6) Biodiversity Conservation and Sustainable Management of Living Natural Resources; 7) Indigenous Peoples; 8) Cultural Heritage (IFC 2012).

On the other hand, there are the Equator Principles, which are similar to the IFC Performance Standards, and according to their webpage, they are intended to serve as a common baseline and framework for infrastructure and industrial projects (The Equator Principles 2013). They are applied by most of the international financing groups including Norfund. The Equator Principles are ten: 1) Review and Categorisation; 2) Environmental and Social Assessment; 3) Applicable Environmental and Social Standards; 4) Environmental and Social Management System and Equator Principles Action Plan; 5) Stakeholder Engagement; 6) Grievance Mechanism; 7) Independent Review; 8) Covenants; 9) Independent Monitoring and Reporting; 10) Reporting and Transparency.

In addition, the Equator Principles classify infrastructure projects in three categories, established in the principle number one (The Equator Principles 2013:5):

- Category A – Projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented;
- Category B – Projects with potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and
- Category C – Projects with minimal or no adverse environmental and social risks and/or impacts.

Norfund, which I describe below, uses the IFC Performance Standards and the Equator Principles as framework of reference in order to approve investments in developing countries. In the following section, I will describe briefly how Norfund works, its involvement in the Hidro Santa Cruz project, as well as the Norwegian cooperation in Guatemala. All of this is relevant to understand the different narratives explained further in chapter six.

## 5.1 Norway's cooperation in Guatemala

In order to understand the role of the Norwegian involvement in the Guatemalan hydropower market, it is useful to take a look at Norway's own hydropower situation as well as the Norwegian aid in developing countries and particularly in Guatemala and on topics related to development and the environment. In this section, I provide an overview of the Norwegian hydropower development as well as the Norwegian cooperation for development and environment.

Norway's hydropower capacity and generation locate the country as the sixth largest hydroelectricity producer in the world. The country's natural resources and geography make it possible to produce 96% of the Norwegian electricity through hydropower (Gonzalez et al. 2011). Around 50% of Norway's electricity generation capacity is owned by local authorities and county councils; around 30% is owned by the central government and 13% is owned by private companies (Gonzalez et al. 2011). According to Gonzalez et al. (2011: 42):

Norway is positive about developing small scale hydropower plants because they usually have a smaller environmental impact and are used as a local energy resource. (...) Additionally, small hydropower plants give a higher return on investment due to the low capital investment and operational costs.

The hydropower industry in Norway is also interested in exporting and expanding and its main areas of interest are Latin America, Southeast Asia and China. Norway is also involved in financing hydropower projects, both directly through bilateral development aid and indirectly through finance institutions (FIVAS 2013).

Norway has a strong policy for development cooperation. According to the OECD (2012), Norway provides 1% of its gross national income (GNI) to development assistance. The main objective of the Norwegian development policy is to assist developing countries to pursue policies that will promote their economic and social development.

Environmental concerns are an important part of the Norwegian development cooperation. Access to clean energy is one of its four thematic priority areas

(Norwegian Ministry of Foreign Affairs 2006). Additionally, Norway aims to promote environment-based private sector development as a way to generate growth, to create employment opportunities and to achieve environmental goals through the development of environmental technologies, renewable energy resources, and water and sanitation technology (Norwegian Ministry of Foreign Affairs 2006). Norway's guidelines for environmental concerns in development cooperation include providing better access to energy services at affordable prices that benefit poor people.

According to the Norwegian Action Plan for Environment in Development Cooperation by the Norwegian Ministry of Foreign Affairs (2006:4), "Norway's environmental development cooperation must be based on developing countries' own priorities". It also states that "Norway will support measures targeted specifically at environmental and natural resource management". Most of the Norwegian development funds are intended to be targeted at conservation and sustainable use of natural resources and water resource management.

The guiding principles of Norwegian development and environmental cooperation are to "ensure sustainable use of natural resources and ecosystem services, involve local communities in the management of the environment and natural resources, and strengthen the rights of local populations, including indigenous peoples, to natural resources" (Norwegian Ministry of Foreign Affairs 2006:7). The Norwegian cooperation concentrates its efforts on thematic areas, such as water resource management, climate change and access to clean energy. Furthermore, cooperation supports both Norwegian and international non-governmental organizations particularly focusing on empowering local communities and indigenous peoples to claim their rights to property, land and natural resources (Norwegian Ministry of Foreign Affairs 2006:13).

The Norwegian Action Plan for Development also states the guidelines in terms of the Norwegian cooperation on the private sector. Such guidelines indicate that Norway intends to encourage a stronger focus on the environmental dimension in private sector development, as well as to place developing countries in a better position to establish and enforce environmental standards in connection with investments, private sector development and trade. The document also indicates the focus of the cooperation on energy projects, stating that "energy is essential for both social and economic

development. Providing better access to reliable energy services at prices that are affordable to poor people is crucial to achieving the Millennium Development Goals” (Norwegian Ministry of Foreign Affairs 2006:17).

As stated in a report to the Norwegian Parliament (Norwegian Ministry of Foreign Affairs 2009:5), one of the principal tasks of the Norwegian development policy is “to help countries gain control over their own development, and to help individuals gain control over their own lives”. In that sense, a tool of Norwegian development policy is to support this process by providing funds and expertise. The report also indicates that the Norwegian bilateral aid would be focused on areas where Norway has recognized expertise, such as climate, the environment, sustainable development, peace building, human rights and humanitarian assistance, oil and clean energy, women and gender equality, good governance and the fight against corruption.

The Norwegian cooperation also intends to encourage a stronger focus on the environmental dimension in private sector development as one of the strategies of the international cooperation. Another one is to ensure that Norway’s support schemes for private sector development in the South take into account international environmental commitments, national priorities and the principles of sustainable development with the purpose of creating growth and employment in developing countries (Norwegian Ministry of Foreign Affairs 2006).

The Norwegian Government established some financial instruments aiming to reduce the risk associated with investments in developing countries, in order to incentivise investments from Norwegian commercial enterprises. Most of these instruments are financed through the development assistance budget. According to the Norwegian Ministry of Foreign Affairs (2012), “the aim of the aid-financed support schemes is to promote development in developing countries, not to promote Norwegian business interests abroad”. Furthermore, the highest priority is given to measures aimed to stimulate private investment in renewable energy production in developing countries. The Norwegian authorities have also established a support scheme administered by the Norwegian Agency for Development Cooperation (Norad), for businesses that want to establish or expand their activities in developing countries, where businesses can apply for grants for feasibility studies, the training of local employees and measures to

strengthen environment, health and safety standards and corporate social responsibility (Norwegian Ministry of Foreign Affairs 2012).

### **Clean Energy for Development Initiative**

The purpose of this initiative, according to Norad (2009) is to alleviate poverty by giving people access to affordable energy. The Clean Energy for Development Initiative was launched in 2007 to “coordinate and ensure the quality of an increased clean energy portfolio in Norway’s development cooperation activities” (Norad 2009:35). The Clean Energy for Development Initiative argues that investments in profitable companies and the transfer of knowledge and technology is a way to reduce poverty and to promote economic progress and growth in poor countries (Norad 2009).

According to Norad (2009), the goals of the initiative are that the benefited countries have access to affordable energy services that are based on renewable energy sources, and to reduce greenhouse gas emissions. The initiative is carried out by an inter-institutional working group that comprises the Ministry of Foreign Affairs, the Ministry of the Environment, the Ministry of Petroleum and Energy, Norfund and Norad. Norfund is one of the key partners in the implementation of this initiative (Norad 2009).

In the particular case of Guatemala, Norway has a strong bilateral cooperation with the country since 1976. Most of the cooperation reaches the country through financial aid for projects carried out through United Nations agencies, as well as projects implemented by Norwegian NGOs. According to an evaluation of the NGOs working in Guatemala (NORAD 2007:9), the main areas of work in the country are targeted towards marginalized groups, with a strong “focus on women, indigenous peoples, children, landless peasants, agricultural labourers and other organized workers.” In addition, democratisation, human rights and participation are also prioritized. Furthermore, Norwegian NGOs working in Guatemala implement projects focused particularly on “addressing the problem of exclusion of indigenous peoples.” (NORAD 2007:9).

I consider important to note that, at the moment of delivery of this thesis, the Norwegian Embassy in Guatemala had recently closed down its offices, although the cooperation is intended to continue with the same objectives, according to the Embassy’s webpage.



## 5.2 Norfund

The Norwegian Investment Fund for Developing Countries (Norfund) was established in December 1996 by the Norfund Act. Norfund works as a hybrid state-owned company with limited liability. Its objectives are to contribute equity and other risk capital, extend loans and provide guarantees for the development of sustainable commercial activities in developing countries (Norfund 2011). Norfund is categorized as a development finance institution. One of its main strategies is to invest in renewable energy projects in developing countries, with capital from the Norwegian official development assistance budget.

Norfund's main objective is to help to establish sustainable and feasible ventures in developing countries. The investment risks in many developing countries are perceived as too high, thus, Norfund decides to invest where other potential investors would not have decided to invest on their own due to the high risk that such countries present (Norwegian Ministry of Foreign Affairs 2003). According to the Norfund Act of 1996, Norfund would provide loans and risk capital in the form of equity or quasi equity without subsidies to profitable and private enterprises in developing countries with the purpose of promoting business development in these markets. Norfund operates as an integrated fund and a fund management company (Norwegian Ministry of Foreign Affairs 2003). Furthermore, Norfund's investments are eligible for registration as Norwegian's official development assistance (ODA).

According to the Evaluation Report of Norfund by the Ministry of Foreign Affairs (2003), Norfund is a conducive mechanism for channelling development funds to promote private sector development. The report argues that through its direct and indirect investments, Norfund has been instrumental when establishing and expanding private companies in developing countries and by doing this, a more attractive environment is created that will attract more private foreign and local investors.

The intention of Norfund is to establish viable and profitable activities that would not be initiated due to high risk in developing countries. Norfund argues that its work "contributes to economic development and poverty reduction in poor countries through investments in profitable enterprises and the transfer of knowledge and technology"

(Norfund 2011:i). According to Norfund (2011:i), “A well-functioning private sector and access to risk capital are important preconditions for enabling developing countries to expand their economies and achieve effective integration into the global economy”.

Norfund’s investments are divided into four main areas: a) direct investments; b) investments in national venture funds; c) investments in national venture fund management companies; d) partner in private investments companies. These investments are usually performed as equity capital, but they could also be given as loans or a combination of equity and loan. The investments are always made along with a Norwegian or non-Norwegian partner (Norfund 2011).

The investments that Norfund decides to make are for the most part in the sectors of renewable energy, finance, agriculture and agri-businesses (Norfund 2011). Norfund has investments in South East Asia, Africa and Central America. For the year 2014, Norfund had committed investments of NOK 9,266.72 millions (Norfund 2014b). In Central America, the investments registered for the year 2011 were for NOK 3,088 millions, which include 23 projects mainly related to renewable energy (Norfund 2011).

Norfund claims that in order to make a decision on an investment, it has to be familiar with the framework conditions in the countries and sectors where Norfund invests, including the enterprises and their management, as well as the partners which whom they decide to invest (Norfund 2011). My informant from Norfund explained to me that in order to decide if an investment on a project is feasible, Norfund takes the IFC Performance Standards and the Equator Principles as framework of reference, mainly on investments related to renewable energy projects.

As part of its strategy of investing in private renewable energy projects in Central America, Norfund decided to invest in the project Hidro Santa Cruz located in Santa Cruz Barillas, Huehuetenango in Guatemala. On December 2011, Norfund committed to finance of the project by granting a loan and mezzanine for a total amount of NOK 32.5 million. This is the first direct investment that Norfund decided to make in a hydropower plant in Central America (Norfund 2014a). The project is classified on the category B of the Equator Principles (ERM 2012).

### 5.3 Financing of Hidro Santa Cruz

In order to acquire the funds to begin the construction of the project, Ecoener-Hidralia and Hidro Santa Cruz requested a loan to the Interamerican Corporation for Financing Infrastructure (CIFI)<sup>7</sup>. CIFI is a non-banking financial institution created in 2001, which provides financing and structuring advisory services to small and medium scale infrastructure projects and companies in the private sector of Latin America and the Caribbean. CIFI participates in financing via senior debt instruments and also provides mezzanine financing to private companies (CIFI 2011). CIFI has various private shareholders that are mainly finance institutions, one of them is Norfund, who joined as CIFI's shareholder in 2004 and has equity investments and loans for a total of NOK 167.5 million. The main shareholders of CIFI are Bankia, the World Bank, Central American Bank for Economic Integration (BCIE), Inter-American Development Bank (IDB) (HEGOA 2012).

Norfund has acts as a direct lender to Ecoener-Hidralia, and at the same time, as a shareholder and investor in CIFI (Norfund 2014a), in addition to its role as development cooperation actor and one of the implementer of Norway's ODA in Guatemala. The mezzanine loan for NOK 32.5 million is to be used directly in the project. CIFI is supporting financially with NOK 65 million. The estimated total investment of the project is of NOK 180 million. According to my informant, Norfund does not act as a direct financier and investor, but only as a lender; therefore, it does not have the ability to decide and speak up about decisions made by the board of the project, and thus, Norfund does not have a direct influence on the decision making of the project. However, CIFI acts like the main contact and is present in the board of Hidro Santa Cruz on behalf of the institutions that finance the project, which means that it also represents Norfund on the project's board.

In order to approve the financing for projects, both CIFI and Norfund request that the companies comply with the IFC performance standards and the Equator Principles. In this case, Norfund did not perform the evaluation on its own. Norfund decided to base the decision of granting the loan based on the evaluation performed by an external

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<sup>7</sup> Corporación Interamericana para el Financiamiento de Infraestructura in Spanish.

consultant hired by CIFI, the outsourcing consultancy company called Environmental Resource Management ERM. ERM has its main offices in Washington DC and it is a company that performs environmental, health, risk and social consultancy services for industries such as oil, gas, mining, power generation, and pharmaceuticals (ERM 2011). They carried out a review of the Equator Principles on the project. The project was assigned category B of the Equator Principles, which means that the project may have "...potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures" (The Equator Principles 2013).

During the interview, my informant from Norfund allowed me to have access to the report performed by ERM, and I could observe that the report detailed briefly the methodology that was used as well as the results and recommendations. The report indicates that ERM performed a site visit, reviewed the base line of the project and also did a review on the IFC Performance Standards number one (Assessment and Management of Environmental and Social Risks and Impacts), number five (Land Acquisition and Involuntary Resettlement) and number seven (Indigenous Peoples). The review indicates that the total of the land that will be used for the project was acquired by Hidro Santa Cruz through buying it from private owners, and that all documents are in order. It also indicates that there are no voluntary or involuntary physical displacements. It also indicates that the project complies with the national regulation, the Equator Principles and the IFC Performance Standards (ERM 2012). The study indicates that there are some unconformities from people from the near communities but such issues could be addressed with better communication from the company towards the communities. This external evaluation served as green light for CIFI and Norfund to decide to invest and lend money to the Hidro Santa Cruz project.

My informant indicated that the company and the project fulfilled all the regulations and paperwork required by Norfund, therefore they saw no objection in deciding to be a lender. However, after the conflict became more severe, Norfund's board decided to freeze the financing until the conflict had been resolved.

From this, it can be concluded that, nonetheless regulations such as the IFC Performance Standards and the Equator Principles provide a framework of reference for environmental, social and risk impacts of infrastructure projects, other measurements,

such as the structural conflict background of the country and the specific region, as well of the general perception towards the development of hydropower in countries like Guatemala are not taken into consideration.

In this chapter, I have described an overview of the way in which financing infrastructure, and particularly hydropower projects, is a part of international cooperation for development. Furthermore, I have given an overview of the financial global standards that are established to ensure that investments in infrastructure projects comply with social and environmental requirements and that cause the least damage possible in the areas where the projects are carried out. Moreover, I have described the Norwegian cooperation for development, particularly in Guatemala as well as the role of Norfund as financier of the case study of Hidro Santa Cruz. In the following chapter, I discuss more in depth the Hidro Santa Cruz project, the conflict and analyse the narratives around it.

# 6 Narratives and power relations: The conflict over Hidro Santa Cruz

In order to understand the conflict over the construction of Hidro Santa Cruz, it is important to understand the existing narratives and power relations around the development of the project. In this chapter, I draw a map of the actors involved, a timeline of the conflict and analyse the narratives and power relations around it.

## 6.1 The Project

The construction of the Hidro Santa Cruz hydroelectric plant will include a run-of-river<sup>8</sup> plant in the river Cambalam, which is located in Santa Cruz Barillas, Huehuetenango in Guatemala. The plant will be built only four kilometres away from the centre of the urban area of Santa Cruz Barillas. The plant will have capacity to generate up to 4.96 MW of electricity. Even though the project is considered small scale, it will include a 2.50 meters-high dam of and a 1,300 meters-long steel pipeline. The dam and the pipeline will direct the water from the river Cambalam to the powerhouse, where a Pelton turbine<sup>9</sup> will be installed and transform the energy propelled by the water of the river into electricity. In addition, the company has plans to build an electric sub-station next to the powerhouse in order to connect the generated electricity to the municipal grid, which is located 4.91 kilometres away. Furthermore, by the end of this research, the company had a new authorization from the Ministry of Environment and Natural Resources and from the Ministry of Energy and Mining to build a second small-scale plant in the same river, as the second phase of the same project called Hidro Santa Cruz II.

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<sup>8</sup> The definition of a run-of-river plant is that, in order to generate electricity, the plant uses the flow of water within the natural range of the river, with no or little reservoir impoundment. Run-of-river projects can use all the river flow or just a fraction of it (Egré, D & Milewski, J., 2002).

<sup>9</sup> This kind of turbine consists of a wheel with a series of split buckets set around its rim. A high velocity jet of water is directed tangentially at the wheel and the energy of the water goes into propelling the bucket and the deflected water falls into a discharge channel below (Paish, 2002).

In 2010, the Ministry of Environment and Natural Resources granted an environmental license to Hidro Santa Cruz in order to start with the construction of the hydroelectric project. As mentioned before, the Guatemalan legal framework for renewable energy projects enables plants that are below or equal to 5 MW to start operating and to obtain environmental and construction licenses with fewer requirements than those projects with larger capacity.

After obtaining the environmental license, projects need to get a construction license from the local municipality. The license, however, was not granted by the Municipality of Santa Cruz Barillas, following the decision expressed by the communities in a consultation carried out in 2008, in which they opposed to any kind of mining and energy projects in their territory. By July 2014, the construction license was still not granted to Hidro Santa Cruz.

## **6.2 Map of actors**

In this section I describe the main actors involved in this case study for a better understanding of the resources at their disposition and to understand their position within the conflict.

### **Hidro Santa Cruz**

Hidro Santa Cruz is the legal and commercial entity responsible for the project. This company was legally established and started operating in 2009. Hidro Santa Cruz is Guatemalan subsidiary of the Spanish company Ecoener-Hidralia.

### **Ecoener-Hidralia**

Ecoener Ingeniería, S. A. is a Spanish company that works with renewable energy and infrastructure projects in Europe and in Latin America, focusing on developing, building and operating small hydropower projects (Norfund 2014a). Hidralia Energía (2014) is a private company that works with infrastructure, engineering and development of hydropower and other renewable energy projects in Spain and Latin America. Both companies joined for the Hidro Santa Cruz project and are the main sponsors, acting as parent companies to Hidro Santa Cruz, S. A. Ecoener Ingeniería,

S.A. owns 85% of the shares of the project and Hidralia Energía the other 15% (Prensa Libre 2012a).

### **Private security forces**

Private companies in Guatemala hire private security agents to ‘protect’ their businesses. The private security agents of Hidro Santa Cruz take also part in the conflict, since two of them were accused of the murder of one community leader (Guereña and Zepeda 2012; Escalón 2012).

### **Governmental actors**

The Government of Guatemala is also a main actor in the case. It is through its institutions that the government is responsible for granting licenses and authorizations for projects to begin construction and operations in the country, as well for responding to and assessing cases of conflict. This research showed that the relevant institutions, which are responsible for the electric subsector are the *Ministry of Energy and Mining*, institution in charge of granting authorizations for the installation of electricity generation plants and responsible for verifying that laws, rules and policies are followed. Additionally, the *Ministry of Environment and Natural Resources (MARN)*, which is responsible for granting environmental licenses after analysing environmental impact assessments of the potential hydropower projects.

On the other hand, the *Ministry of the Interior* and the *Ministry of Defence* are also key actors when assessing the conflict. The Ministry of the Interior is responsible for maintaining the public order, ensure the governance of the country, protect Guatemalan citizens and promote and facilitate public participation and organization (Ministerio de Gobernación 2012). This ministry is represented on site by the National Civilian Police.

The *Ministry of Defence* is responsible for maintaining the sovereignty and integrity of the country, doing so through the armed forces (Ministerio de Defensa 2012). The later two ministries are important for this research, since both ministries worked together, during the peak of the conflict caused by the construction of Hidro Santa Cruz and were in charge of the security of the area during the state of siege. The Ministry of Defence is represented on site by the Guatemalan Army.



The *National Commission for Dialogue*<sup>10</sup> is a space created by the government of Otto Pérez Molina, within the National System of Dialogue that follows up and approach socio-environmental conflicts in communities. It also coordinates actions and to act as a communication liaison between the government and communities (Prensa Libre 2012b). The National Commission for Dialogue led the dialogue space for the conflict of Hidro Santa Cruz.

### **Community members**

Members and leaders of the neighbour communities are relevant actors in the conflict. Community members from the surrounding area, including communities such as El Recreo, San Carlos and Santa Rosa (Hernández 2012) expressed their opposition to any hydroelectric or mining projects in a consultation carried out in 2008 (Hernández 2012). Furthermore, during the violent events of May 1<sup>st</sup> 2012, one community leader was murdered and several others were taken prisoners. Additionally, all the members from the communities of Santa Cruz Barillas were affected by the restrictions established during the state of siege.

### **Local authorities**

The *Municipality of Santa Cruz Barillas* lead by the Mayor Cándido Manuel López from the party Unidad Nacional de la Esperanza UNE, who was elected in November 2011 and was in office from January 2012 until December 2015.

The *Municipal Councils for Development (COMUDES)* are in charge of promoting economic, social and cultural growth of the municipality; elaborating, approving and carrying out urban and rural development plans; promoting neighbor participation in identifying their needs<sup>11</sup>.

The *Community Councils for Development (COCODES)* are integrated by community leaders and they are in charge of promoting the economic, social and cultural

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<sup>10</sup> Comisión Nacional de Diálogo in Spanish

<sup>11</sup> Ley de los Consejos de Desarrollo Urbano y Rural, Decree 52-87, article 10.

development of the community; promoting the participation of community members in identifying their needs and solving problems in the community<sup>12</sup>.

## **Investors**

The *Interamerican Corporation for Financing Infrastructure (CIFI)*<sup>13</sup> provides financing and advisory services to private infrastructure companies in Latin America and the Caribbean (CIFI 2014), and acts as the main financier of the Hidro Santa Cruz project.

The *Norwegian Investment Fund for Developing Countries (Norfund)* is the Norwegian institution that invests in developing countries with high investment risks, with the purpose of establishing feasible ventures. The main area of investment is renewable energy projects, primarily hydropower (Norwegian Ministry of Foreign Affairs 2003). Norfund contributes to the financing of the Hidro Santa Cruz project in two ways: First, through a 32.5 million NOK direct loan for Ecoener-Hidralia, and second, as a shareholder of 9.26% of CIFI's total shares.

## **Other actors**

*External consultants* hired by CIFI and Hidro Santa Cruz to conduct an environmental impact assessment and a standard assessment to verify that the project complied with the Equator Principles. Both assessments were used to obtain the authorization by MARN and the financing by CIFI and Norfund.

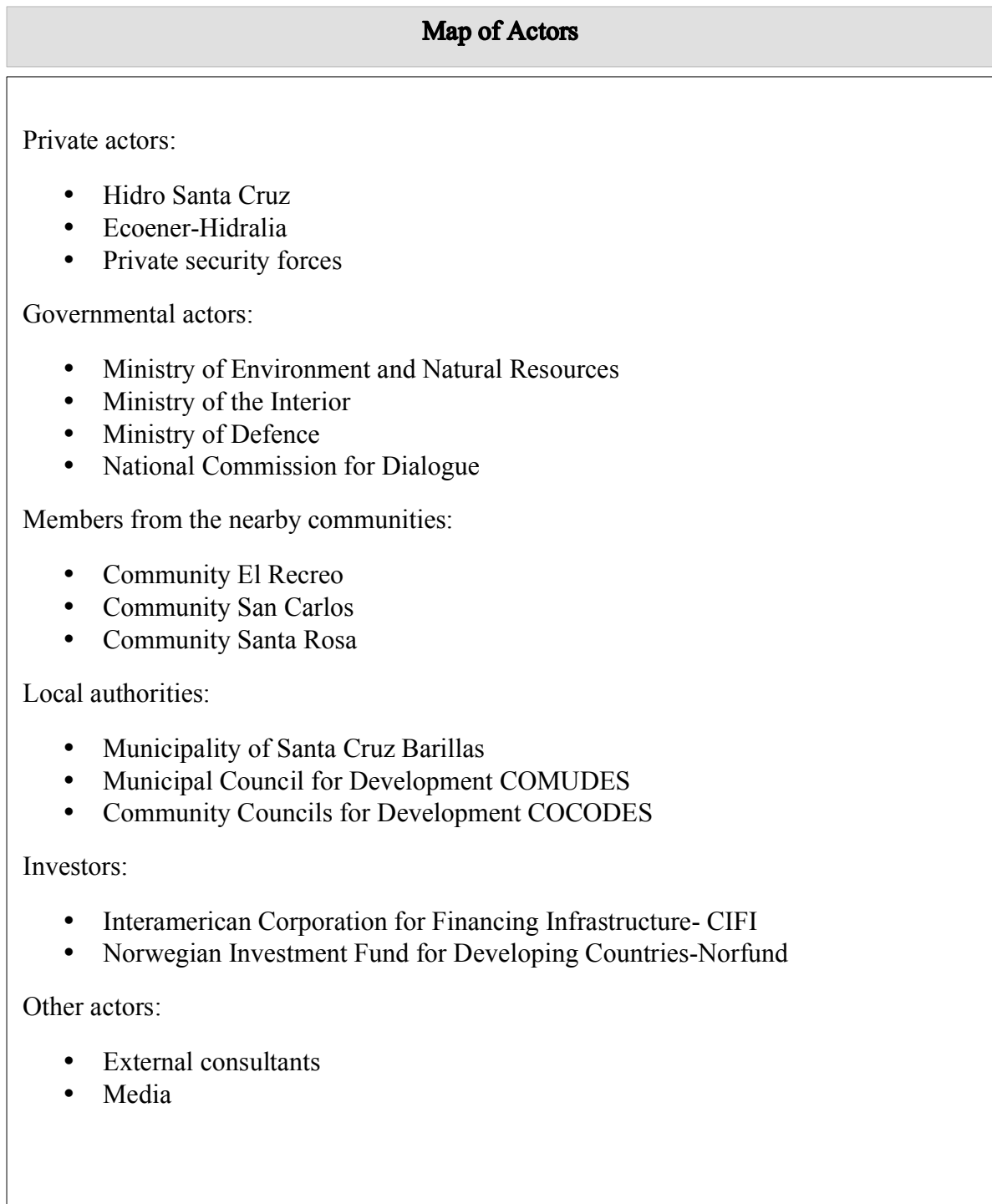
*Media*, including television, newspapers, and online newspapers and academic online journals and blogs, play an important role on how the conflict is presented to the public and how it is perceived.

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<sup>12</sup> Ley de Consejos de Desarrollo Urbano y Rural, Decreto 52-87, article 13.

<sup>13</sup> *Corporación Interamericana para el Financiamiento de Infraestructura in Spanish*

**Figure 2: Map of Actors**



Elaboration by author.

## 6.3 The Conflict over Hidro Santa Cruz

Hidro Santa Cruz has been subject to intense opposition from the population in Santa Cruz Barillas. This opposition has led to a serious conflict that had not been resolved as of July 2014. I begin this section with a description of the conflict, including the response of the government and the way the conflict was approached and handled.

On June 23<sup>rd</sup> 2007, the inhabitants of Santa Cruz Barillas held a *consulta comunitaria de buena fe*, or good will community consultation. Trentavizi and Cahuec (2012:6), define *consultas de buena fe* as “exercises that are conducted in an explicit way within some municipalities of Guatemala with the purpose of showing the decision of its inhabitants about the installation of certain projects, usually regarding mining and energy”. In this consultation, which was organized and approved by the municipality council, community members expressed their vote marking ‘yes’ or ‘no’ in voting ballots provided by the organizers. During the consultation, 46,490 out of 130,000 community members of Santa Cruz Barillas voted, that is 35.76% of the population decided to vote. Of those who exercised their vote, 46,481 voted ‘no’ (99.98% of the registered votes), expressing their opposition to the development of any type of mining projects or any kind of projects related to the exploitation of natural resources in their territory (HEGOA 2012; Hernández 2012).

In 2009, the company began the process of publicizing information about the project by presenting it to the *Concejo Municipal de Desarrollo COMUDE*, and community leaders. The project was rejected by the COMUDE of Santa Cruz Barillas. However, in spite of the local rejection, the company proceeded with processing licenses and financing. According to Guereña and Zepeda (2012), the lack of information about the project caused speculations and rumours in the communities that the intention behind the project was for a mining company to extract gold and mercury.

In 2011, Hidro Santa Cruz, S. A. requested the construction license to the municipal council, which decided to deny the authorization due to the opposition of nearby communities and to respect the results of the 2008 consultation. This situation happened repeatedly during the company’s process of publicizing the information about the

project. According to the report by HEGOA (2012), the process of sharing information with the communities included several meetings with the municipal council, COMUDES and COCODES. The aforementioned report also claims that the general feeling of the communities towards the project was refusal. The different communities and its representatives made a clear statement of not wanting the project to develop.

Nonetheless, in January 2012, the new authorities from the party Unidad Nacional de la Esperanza –UNE- that were elected in September 2011 took office and contacted the company in order to find a solution to the conflict. In February 2012, and without previous notice, the company brought heavy machinery to the project site. The communities regarded this action as if the company was ignoring their demands. In a confusing setting, private security agents working for Hidro Santa Cruz were taken hostage by community members and the machinery had set on fire (HEGOA 2012).

In this context of rising tension over the project, the conflict reached its peak. On May 1st 2012, while the town celebrated its fair, one community leader was murdered and another two community members were injured by gunshot attack incidents, which later were attributed to two private security guards who work for Hidro Santa Cruz (Hernández 2012). This provoked that upset community neighbours went looking for the perpetrators of the attack, leading a group of 5,000 people taking over the military base that had been placed in Barillas since 2009 (Hernández 2012).

The government's immediate response to this conflict was to declare state of siege, which lasted for 18 days (Secretaría de Comunicación Social de la Presidencia 2012). According to the Law of Public Order of Guatemala (Decree 7-1965) -approved by the Congress in 1965 under the context of the beginning of the civil war, slightly modified in 1970- stating in its article 16, that state of siege can be declared in case of

(...) terrorist, seditious or rebel activities, that pretend to change by violent means, the public institutions or when severe activities put in danger the constitutional order or the security of the State; also when there is founded indication that acts of sabotage, fire, kidnapping, murder, armed attacks against

civilians or civil or military authorities or other ways of terrorist or subversive delinquency.<sup>14</sup>

The declaration of state of siege in Guatemala implies the suppression of civilian rights stated in the Guatemalan Constitution. Based on what is established in the law, the government can prohibit or break apart any meetings or gatherings, including those that are held for private reasons. The state of siege also allows the armed forces to arrest those who can be considered suspects of conspiracy without an order by a judge. In addition, the government can limit and restrict freedom of mobility, as well as freedom of speech by censoring public media. All of these actions are carried out by the armed forces, a combination of the army and civilian police.

During the state of siege, authorities arrested 17 people, who were accused of plagiarism, kidnapping, threats and instigation to commit crime and terrorism. Among these arrests, two private security agents from Hidro Santa Cruz were accused and sentenced for the attack and murder of the community leaders (Hernández 2012).

With the ending of the state of siege, the government decided to initiate a space for dialogue between the actors involved in order to solve the conflict and continue with the project. The actors invited to participate in the dialogue include the Municipality of Santa Cruz Barillas, the company Hidro Santa Cruz and representatives of the affected communities, community leaders, including representatives from COCODE and COMUDE. The dialogue was led by the National Commission of Dialogue, which is the government's strategy to promote dialogue in order to settle or avoid social conflicts. As part of the dialogue process, the municipality of Santa Cruz Barillas and Hidro Santa Cruz reached an agreement of cooperation and collaboration in December 2012. This agreement included the commitment of Hidro Santa Cruz to give to the municipality of Santa Cruz Barillas an amount (not specified) of the profits earned by the sales of electricity produced by the project. This amount would be used by the municipality of Santa Cruz Barillas to carry out social and cultural activities and projects and would be directed to the communities near the plant.

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<sup>14</sup> My translation.

Furthermore, Hidro Santa Cruz committed and stated in the agreement to fully comply with the environmental licenses granted by the Ministry of Environment and Natural Resources, as well as to have a local office in the town of Santa Cruz Barillas, in order to increase the dialogue with communities and therefore avoid potential or future conflicts. In addition, Hidro Santa Cruz agreed to give to the Municipality of Santa Cruz Barillas a yearly economic compensation of 1.5 million Quetzales (approximately 1.1 million NOK) starting from the signature of the aforementioned agreement (MEM 2012a).

During the process of dialogue, the majority of community leaders seemed willing to negotiate and approve the construction of the hydroelectric plant, however they would only agree if certain conditions were met (MEM 2012a) These conditions included that they would not sign the agreement before the legal process of the community members in prison was finalized. Additionally, the community leaders demanded to state in the agreement that all the communities of Santa Cruz Barillas would have access to electricity at affordable prices. They also demanded that the financial compensation to the municipality of Santa Cruz Barillas from Hidro Santa Cruz's profits, would be distributed equally among the communities. Furthermore, the community leaders demanded that Hidro Santa Cruz would only produce electricity and that it would commit to not be involved in any kind of mining activity, respecting the communities' rejection to mining companies expressed in the 2008 consultation (MEM 2012a).

Nevertheless, according to an internal report of the Ministry of Energy and Mining (MEM 2012a), when the process of dialogue was finished and the agreement was in line to be signed by all actors involved, some community leaders (not specified in the report) decided to refrain from signing, claiming that the commitments stated in the agreement would not be beneficial for all the parties involved and that there was not a full consensus from all the actors that participated in the dialogue process (MEM 2012a). As of July 2014, the agreement was not signed. Moreover, the Ministry of Energy and Mining on its internal report about the Hidro Santa Cruz conflict (MEM 2012a:4), argues that the conflict was originated by “the lack of socialization of information from the company, which generated a mistrust atmosphere and ungovernability in Santa Cruz Barillas”.

## 6.4 Discussion and Analysis

Political ecologists question how certain types of ecological knowledge are selected and validated, how environmental problems are narrated and structured, and how certain assumptions and practices are taken for granted and become normal (Peet et al 2011). Additionally, political ecology questions how ideas are developed and understood by different actors, and how discourses are developed to facilitate or block the promotion of a specific actor's interest (Peet et al 2011). In this sense, when doing research from a political ecology approach, it is essential to analyze how actors present, narrate and assume ideas on environmental problems. In this section, I present the main narratives about hydropower in Guatemala and Hidro Santa Cruz in particular.

As described in chapter three, a narrative can be described as a narration or description of an experience with the aim of a mutual understanding of the speaker and listener. Narratives construction reality instead of just mirroring it (Paschen and Ison 2014). Narratives can be told in form of stories, and usually describe scenarios about what will happen if events or situations are carried out according to their narrators. In this section, I will try to compile the different narratives around the project.

The narrative of Hidro Santa Cruz as a private company suggests that hydropower development contributes to the economic growth and the creation of jobs in the area. In this way, the company is offering a solution to a perceived problem. This narrative is reflected in the environmental management plan of the company (Hidro Santa Cruz 2010), as part of the requirements for 5MW or smaller hydropower projects to apply for authorization and license at the Ministry of Environment and Natural Resources in Guatemala. The environmental management plan of Hidro Santa Cruz includes a description of the technical aspects of the project, such as potential environmental impacts on air, water, landscape, soil and biodiversity. As I have mentioned before, when hydropower projects are smaller than 5MW, the Guatemalan ministries in charge of granting authorizations do not require companies to conduct and report any type of social impact assessments.



However, the environmental management plan presented to the Ministry of Environment and Natural Resources by Hidro Santa Cruz, elaborated by an external consultant who was authorized and registered by the ministry, presents a short section related to what Hidro Santa Cruz considers as social aspects of the project including the positive or negative possible impacts for the nearby communities (Hidro Santa Cruz 2010). Within that frame, Hidro Santa Cruz (2010) claims that there are no communities that will be affected directly by the process of construction of the plant, arguing that the land is privately owned and the project is small-scale.

The plan also states that private development of hydropower plants is good for rural areas in Guatemala because it promotes economic growth and sustainable development and it creates jobs in the region (mainly unskilled and temporary construction labor) (Hidro Santa Cruz 2010). This narrative is sustained not only by private companies developing hydropower projects, it is also used by the government and investment corporations, such as Norfund (2014b) that argues that investing in profitable enterprises in developing countries promotes business development and contributes to economic growth and poverty alleviation.

In relation to the narratives around hydropower, Escalón (2012:1) claims that in Guatemala there are two simplistic discourses concerning hydropower, one held by the industrial sector and the other one by the communities and social organizations:

The industrial sector claims: “Hydroelectric plants are good: they generate clean energy, they create jobs and development for rural areas. Those who oppose to hydroelectric plants, the communities manipulated by NGOs financed by foreign governments, reject progress; they want to remain in the Stone Age. The government must do everything in its hands, use force if necessary, to impede that this little group of jealous rioters endanger private property of some brave businessmen that risk their capital in such beneficial projects”.

Communities and supporting social organizations say: “Hydroelectric plants only bring destruction and death. They are built by Machiavellian transnational companies that make thousands of millions exploiting resources that legitimately belong to us, leaving us with misery, pollution, corruption and social division.

They are racists, classists; they abuse Mother Earth and want to destroy us as people. That is why we say yes to life, no to hydroelectric plants!”<sup>15</sup>

Although, the previous claim can be considered overstated, Escalón (2012) encompasses the main two narratives for hydropower development in Guatemala. According to Hirsch (2010:69) the arguments in the dominant narrative related to hydropower in Guatemala are four:

*The development argument* and the need for cheap energy, the *environmental and climate change argument* focused on changing the dependence on fossil fuels, the *comparative advantage argument* about the country’s potential for resource exploitation, and lastly the *social equity and participation argument*.

In this case study, it is clear that both arguments from Escalón (2012) and Hirsch (2010) are accurate. On the one hand, the government and the private sector, represented here with Hidro Santa Cruz, claim that the construction of hydropower plants contributes to the economic growth of the region and the country; that hydropower is a cleaner way of producing electricity. At the same time, they argue that the construction of the plant will create jobs for the region, although these jobs are few and mainly during the construction phase and in activities that do not require qualified workforce.

Another argument in the narrative from the private sector and the government that I identified from the interviews and documents is that the government and private sector claim that those communities who oppose to hydropower projects are being manipulated by people from outside the communities, such as national and international NGOs. This narrative has been used by to reinforce the way in which protests and opposition is criminalized, suggesting that communities in rural areas, especially indigenous communities, are misinformed and are influenced or manipulated by external actors that do not want to contribute to the economic growth and development of the country. However, while doing this case study I did not identify any direct accusation of manipulation towards the communities involved in the conflict and opposition.

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<sup>15</sup> My translation

I consider important to note that the opposition to hydropower in Guatemala is not exclusively related to hydropower, but in most cases is influenced by the reluctance of rural communities to mining in their territories. As the Ministry of Energy and Mining (MEM 2012) expresses, the communities oppose to any kind of hydropower as well as any mining project within their territory, wanting to defend their natural resources.

In sum, I argue that in regards to the Hidro Santa Cruz project, there are three narratives. First, the narrative about how hydropower is beneficial for the development and economic growth of the region, represented by the government institutions, the company and the financial investors. Second, the narrative about companies exploiting natural resources for their own benefit, claimed and expressed by the affected rural communities, who reject any type of mining or hydropower projects in their territories. Third, the narrative from international cooperation, which encourages investments in renewable energy projects in order to promote economic growth and access to energy.

### **Power relations and exercise of power through established legal mechanisms**

As discussed in the analytical framework chapter, Hayward argues that power is “a network of social boundaries that delimit the field of what is possible for all actors” (1998:1). These boundaries, she argues, are mechanisms of power such as laws, rules, norms, institutional arrangements, and social identities and exclusions that constrain and enable action for all actors. Furthermore, in the framework of political ecology and in order to understand power in environmental conflicts, Blaikie and Brookfield (1991) argue that an actor can attempt to control the access of other actors to specific environmental resources aiming to monopolize a valued resource in order to ensure that the economic benefits for its exploitation go largely to the most powerful actor.

When analysing the conflict, it is evident that the actors involved are making use of the established laws, rules and norms in order to exert power. For example, community leaders use their right of protest, organization and consultation established in the ILO Convention 169 and the Municipal Code in order to express, validate and legitimize

their disagreement with the exploitation of natural resources in their territory. They make use of such mechanisms and decide to hold a consultation as well as to organize protests and blockades. However, these mechanisms are not validated by the government institutions. The legality and non-binding status of the community consultations was constantly referred to in most of the interviews as well as in the reports analysed. The legal and policy incoherencies of allowing the communities to use their voice through municipal consultations but the central government, through the ministries, refusing to acknowledge the legality of the consultation is a starting point for conflict.

Furthermore, the strategies of the government to approach and handle conflicts show that there is a criminalization of social protests, as well as the use of violence and repression. On the other hand, the government has implemented strategies for approaching conflicts by creating and establishing spaces where actors involved can dialogue and reach agreements.

By criminalization of the protest, I refer to the way in which the government makes use of legal mechanisms such as the Law of Public Order, in order to condemn and reprehend any type of opposition that does not correspond to the neo-liberal interests and ideas of a free market economy and to the narrative of 'economic growth and sustainable development' used by the Guatemalan economic and government sectors, and encouraged by the government's policies. As Hayward (1998) claims, power is exerted through established mechanisms, therefore, criminalizing protests and other types of opposition is the way in which the Guatemalan Government is using its embedded power to repress those who oppose to such narrative. These mechanisms are often used when communities, indigenous peoples or other groups oppose to projects that involve different types of natural resources, mainly mining, cement and hydroelectric plants. Furthermore, such a legal framework allows the government to make use of violence and repression through the armed forces. I argue, in addition, that the use of the Law of Public Order dated from 1965 and slightly modified in 1970's, reflects a practice of out-dated measures and not adequate within the context of a post-war and democratic government, and more importantly, that do not align with the Peace Accords of 1996.

On the other hand, communities and groups that oppose to such narratives also make use of their power to block or hold back projects that are against their wishes and demands. Furthermore, such actions have been used on other types of conflicts related to land tenure and natural resources exploitation and management (see Hurtado Paz y Paz 2006). In respond to this claims, the government also responded by creating spaces for dialogue in order to solve the conflict. These spaces are also an institutionalized way of dealing with conflicts; however, they seem to approach the conflicts after they burst, rather than tackling the causes that will create them.

Political ecologists claim that power over nature and society is exercised not only through complex forms of social control but also as a normative ideology of governance (Peet et al 2011). Thus, I argue that power is used by the actors affected through established mechanisms, including the creation of spaces such as consultation and public participation processes, as well as the creation of spaces for dialogue after the conflict broke out.

By stating that “the lack of socialization of information from the company, which generated a mistrust atmosphere and ungovernability in Santa Cruz Barillas” (MEM 2012a:4) was the cause of the conflict, the Ministry of Energy and Mining and the government are leaving the responsibility of informing about the project and its characteristics solely to the company, taking no responsibility of sharing information about new projects to neighbour communities. At the same time, as I have argued above, the authorities are ignoring any resolution expressed by the communities in the consultation of 2008, and not taking into consideration other social and political factors of the situation and the area where the conflict developed. From this, it can be inferred that the authorities do not value the opinion and wishes expressed by the people of Santa Cruz Barillas and other communities affected by projects like Hidro Santa Cruz and, at the same time, do not consider important to share and publicize information about potential projects before granting license and authorizations. As Hayward (1998) argues, the absence of interaction, communication and other readily apparent ‘connections’ can as well be evidence of the exercise of power.

An additional point of analysis that I will not deepen in this thesis, but I consider worth studying, is the privatisation of security in Guatemala. According to the Ministry of Interior (Ministerio de Gobernación 2014), there are 147 registered private security companies, of which 39 licenses have been granted to 16 private security companies during the year 2014, suggesting that in the last years the demand for private security in the country has been increasing.

In sum, the conflict around the construction of the Hidro Santa Cruz project is a clear illustration of how different actors involved make use of established institutional and legal mechanisms that enable them to exert power. I argue that power is used by the actors affected through established mechanisms, which include the creation of spaces such as consultation and public participation processes, as well as the creation of spaces for dialogue after the conflict broke out. On the other hand, the government and its institutions exert power through the use of violence, repression and criminalization of the protest.

### **Accepted global narratives on hydropower for development**

As discussed in the previous chapters, the global idea and narrative around hydropower for development is exemplified and executed through accepted global norms, where international organizations and the international cooperation promotes investments in renewable energy projects, hydropower being considered one of the least polluting ways of generating electricity. In that way, there are global initiatives, standards and even institutions that promote and invest in renewable energy projects.

In the case of Hidro Santa Cruz, it can be inferred that Norfund, as part of the Norwegian development cooperation agenda, is embracing the accepted global narrative that investing in hydropower is beneficial for developing countries. Moreover, investing in small hydropower projects is considered to be even more beneficial since its impact on the environment is lesser than those caused by the construction of large dams. From an investor's point of view, the risks seem minimal. However, and as I have argued, it is important to not only take into consideration the existing legal framework, and the

technical and financial aspects of a project, but the historical and social characteristics of the region where the projects are being built.

Additionally, the existing discrepancies between Norfund's investment and the main objectives of the Norwegian bilateral cooperation with Guatemala, carried out by Norwegian NGOs in the country, are worthy of noting. As I have mentioned above, the main focus of work of the Norwegian NGOs working in Guatemala include democratization, participation and defense of rights of indigenous communities. Thus, the incoherence here is evident, since by building the hydroelectric plant, the rights and voice of indigenous communities through communal consultations are being dismissed.

Thus, I argue that financial institutions, who claim to be part of the official development aid and that promote economic growth and sustainable development through a more social way of investing, should use more comprehensive social impact assessments than those being used by the usual financial institutions without interests of social investing. The global narrative that investing in hydropower brings development, should be more carefully assessed in each context.

## 7 Concluding Remarks

This thesis is a case study of the Hidro Santa Cruz project in Santa Cruz Barillas Huehuetenango, Guatemala. The research aimed to identify and analyse narratives and power relations and to answer the question: To what extent do accepted international narratives on hydropower development and its benefits to sustainable development diverge from the existing local power relations and expressed requests of the communities directly affected by the construction of hydroelectric plants, and Hidro Santa Cruz in particular?

To answer this question, I used a political ecology analytical framework. Political ecology is an interdisciplinary research approach that derives from political science, ecology and economy, which aims to understand the relations between political and economic processes and control over the environment and resources (Peet et al 2011). Political ecologists analyse the role of the state and how it tends to lend its power to dominant groups and classes reinforcing the tendency of resource accumulation and marginalisation of the weaker groups through actions such as laws, taxation or policies (Blaikie and Brookfield 1991). Additionally, political ecology is interested in how ideas and narratives are created and mobilised (Robbins 2004).

To analyse how the different actors exert their power, I use Hayward's (1998:15) definition of power relations, "any relationship involving two or more actors positioned such that at least one can act within or upon power's mechanisms to shape the field of action of the other". These mechanisms are laws, policies or even the lack of them.

As mentioned throughout the thesis, hydropower development is considered beneficial for the sustainable development of developing countries. It is believed to bring economic growth, create jobs and create access to clean and affordable energy. However, that is not what the local communities believe, regardless of the environmental and social impact of the project. In this regards, many international or bilateral financial institutions lend money and invest in hydropower projects in developing countries.



The case of Hidro Santa Cruz is relevant of study because it encompasses several factors and actors that show how diverging are the global ideals and narratives of development with what the local communities believe is good for them. Although the project is a small hydroelectric plant, with a capacity to generate 5MW of electricity, it was strongly rejected by the communities through a municipal consultation. Nonetheless, the government institutions granted the licenses to the private company owning the project, dismissing the desires of the local population. This led to a relevant conflict that involved many actors and actions from the government at the time, including the criminalisation of protests.

In addition, one of the investors was Norfund whose investments are considered part of Norway's official development aid. This investment, paradoxically, contrasts with the main and coherent bilateral cooperation that Norway has with Guatemala and that it is carried out through many Norwegian NGOs. The bilateral cooperation is focused on democratization, participation and defense of rights of indigenous people, which clearly was dismissed by ignoring the wish of the local communities expressed through a municipal consultation and dismissing the use of prior consent and dialogue before starting the construction of the project.

It is my hope that by studying cases as the Hidro Santa Cruz one, there is larger discussion on how to invest in clean, affordable energy for the rural communities and how to create an inclusive dialogue between the different actors involved in the hydropower market in Guatemala, which can also be promoted by international financial institutions such as Norfund.

As conclusion, I leave the reader with a quote from the most recent UNDP Human Development Report, "The challenge is how to balance this new vision of energy production linked to the development of the electric market with a vision of development that prioritizes people" (PNUD 2016:246).



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