

Södertörn University | School of Life Sciences

Bachelor degree 15 ECTS| Environment & Development | Spring 2011

# **“Governing the commons - A case- study of Rio Limpio National Park, Dominican Republic”**

By: Hanna Borglund

Supervisor: Madeleine Bonow

## **Abstract**

Due to scarce natural resources and problems of governing the commons, alternative management of the commons has again emerged. The earlier known governing methods used by international and state conservation are state or private ownership. Governing the commons with local institutions was brought to attention in 2009 by Elinor Ostrom.

In this case-study of governing the commons, a national park is the objective. There are many stakeholders, with a focus on the community institution. The co-management of governing the national park between the local institution, the state and the NGO is analysed to find out if sustainable governance can be achieved in Rio Limpio National Park, and if so how? The rules are set on the conditions of the state about the regulations of the national park, although its protection is legitimized by the activities of the local institution.

The regulation that prohibits the use of the natural resources within the park is enforced in a situation -where poor people are directly dependant on the natural resources and have few employment alternatives. This creates conflicts between the state, the NGO and the community of the environmental policies. The study has shown that increased benefits of the community, as with social protection and local participation in decision making, will lead to more successful nature resource management as well as sustainable development.

Key words; - community institution, sustainable development, eco-tourism, livelihood and national park.

## **Table of contents**

<b>1. INTRODUCTION</b> .....	4
<u>1.1 Case-study</u> .....	5
<u>1.2 Problem formulation</u> .....	6
<u>1.3 Aim of study</u> .....	7
<u>1.4 Delimitations</u> .....	8
<b>2. THEORETICAL FRAMEWORK</b> .....	9
<u>2.1 The commons</u> .....	9
<u>2.2. Long-enduring designed principles</u> .....	10
<u>2.3. Development and Conservation</u> .....	11
<u>2.4. Empowerment and Conservation</u> .....	13
<u>2.5. Community Based</u> .....	13
<b>3. METHOD</b> .....	14
<u>3.1 Qualitative research</u> .....	14
<u>3.2 Source evaluation</u> .....	17
<b>4.EMPIRICAL DATA</b> .....	18
<u>4.1 Rio Limpio and the national park “Nalga de Maco”</u> .....	18
<u>4.2 History of the organisation SEDDIEL</u> .....	18
<u>4.3 Institutional structure and conflicts</u> .....	20
<u>4.4 Cooperation</u> .....	21
<u>4.5 Economy and Eco-tourism</u> .....	21
<u>4.6 Environment, social conditions</u> .....	22
<u>4.7 Elinor Ostroms eight principles</u> .....	23
<u>4.8 Results of empirical data</u> .....	25
<b>5. ANALYSIS</b> .....	27
<u>5.1 Discussion</u> .....	30
<u>5.2 Conclusion</u> .....	33
<b>REFERENCES</b> .....	34

# 1. Introduction

Poor people in developing countries depend more directly on natural resources and ecosystem services. At the same time poor people's access and rights over productive natural resources are low (Baumann, 3, 8, 2002) Most often those nature resources such as land grazing, forests, fisheries and water are claimed as Common Property Resources (CPR) (Jones, Carswell, 143, 2004). Thus how is Common Pool Resources managed, when poor people have low access to it?

Many scholars who have studied "the tragedy of the commons" recommend state control or privatisation, as being the best governing method for sustainable use of natural resources (Ostrom, 2009). Nevertheless, since the publication of Garrett Hardin's "The Tragedy of the Commons" in 1968, many alternative methods about how to manage nature resources have come to light. It took more than 20 years for those solid empirical studies to emerge; - and those scholars proved that successful examples on common property resource management existed, with complex norms, regulations and rules (Jones, Carswell, 143. 2004). Not only is the local institution able to manage governing problems with the commons. But, the institutional arrangements have also often shown in scholarly studies, that they are more reasonable when distributing their benefits more equal in the local community. Irrespective of these scholars, common property institutions are being counteracted by activities of state, market integration and population growth (Jones, Carswell, 144, 2004).

Except for nation states and markets, international NGOs play a crucial role in environmental policies when creating natural resource management and conservation areas in the world. There are International conservation NGOs neglecting local people's needs. During the World Conservation Congress 2004 the World Conservation Union (IUCN) Secretary General observed the idea of social effects of conservation being counteracted by elite groups within IUCN. They were stopping it from becoming a global assessment in the IUCN programme, answering that "the results might be used against conservation itself (Brockington, 2006). However, the social concern cannot be denied, as in reality 50 and 100 percent of stricter protected areas are used or occupied by people in South America and Asia. People use the land illegally, and with stricter legislation and enforcement this can result in, environmental refugees in the millions (Brockington, 2006).

Successful and effective management are uncommon at conservation, and better results of natural resource management, have been achieved when good relations have been reached. The tragedy of the commons was used to legitimise conservation, in order to protect areas with the national parks biodiversity and watershed (Schelhas et al, 2002). There is an example from a programme in Zimbabwe of Community Based Nature Resource Management (CBNRM) that has paved the way for environmental protection, both in African countries and others. The two identified factors are: to let people participate in the management of protected resources and to consider social factors such as development, which needs to be jointly managed within the framework of conservation. These two perspectives harmonise with both ecological and social prerequisites. International conservation organisations very often concentrate their attention on the environmental aspect ignoring the human impact as part of the biodiversity value (Jones, Carswell, 146, 2004).

Other aspects to consider when either maintaining or creating Community Based Nature Resource Management, are the existence of legitimacy and to motivate the locals to protect the area which can be made in several ways. One method can be to create economic opportunities for the community, which are directly in relation to the protected area. These opportunities could be to work in the protected park, for instance at a tourism enterprise, selling food and handicrafts, giving service to local villages and giving users the right to continue with their traditional cultivating methods. Other ways are to support agriculture, forestry, fishery and agro forestry projects, thus decreasing the need of the national parks resources. There are those who question, if conservation and sustainable development can manage to coexist written by Schelhas (et al, 1, 2002). Other conservation and development studies have shown that local institutions are complex within networks of social relations. The scholars also demonstrate that conservation and social development can be harmonised (Schelhas, et al, 2002). Social and ecological sustainability are compatible and there is a need to harmonise those (Brockington, 2006).

## **1.1 Case-study**

This case of governing the commons has been studied during my five months of internship in Dominican Republic at the rural village Rio Limpio. I was sent and supervised by the Swedish organisation SOFIA, with costs covered by the Swedish International Development Cooperation Agency (SIDA) of its internship programme 2010-2011.

The local institution which is analysed is the Dominican Service Integrated Development of Local Eco-tourism (SEDDIEL), located in the village Rio Limpio, fronting the National Park with the name “Nalga de Maco”, which I will call the national park from here on. The local institution SEDDIEL uses the national parks natural resources by its eco-tourism activities. The organisation also co-manages of governing the national park together with the state and NGOs. The state gave the main responsibility to Fundacion Frontera Futuro (FFF), a national organisation, to administrate the governance of the national park in Rio Limpio. There are other organisations involved, but the state and NGO Fundacion Frontera Futuro, Cooperation Technica Alemana (German NGO) (GTZ) are the ones with main responsibility in conservation of the national park ” Nalga de Maco” from the village Rio Limpio. This co-management, mainly the local institution SEDDIEL is studied in relation to the theory of Elinor Ostrom (Ostrom, 2009) of governing the commons and other theories with methods of conservation. This will be further explained in the chapter of theory.

## **1.2 Problem formulation**

Environmental policies are still influenced by old narratives about the nature of environment and the reasons for conflicts. These have been proven inadequate to manage today's challenges, as there are increased environmental disasters and ignored social and ecological conditions. These aspects force environmental and conservation policies to change the narratives about the nature of humans and their relation to environment. Consequently, an alternative governance method is emerging contrary to earlier state and private ownership; is the reorganisation of local institutions.

To reorganise local institutions, it is first necessary to understand them. This is done by analysing and learning about the different arrangements. These arrangements include many relationships and actors at several levels. The majority of the inhabitants are poor and directly dependent on what nature can provide for their livelihood. It is interesting to look at the possibilities the local institution can bring to the village. The effects of the community based organisation will deal with factors such as development, considering the social and ecological needs.

To measure the current strength of the local community SEDDIEL as an institution, it was an analysis was made according to Elinor Ostrom’s eight principles and other theories of Community Based Nature Resource Management. The community does not have the control

of the national park but uses its land for eco-tourism activities, since the protected park is managed in cooperation between the state, NGOs and the community. How and on what conditions do the links between state, NGOs and community arise? The roles of the players governing the commons need to be defined.

The state controls the national park strictly and prohibits the use of it. This creates problems for the population when there are no other alternatives. People are still poor and the environmental degradation with fires in the mountain ridge still continues. The local institution is more aware about the local needs and eager to “secure food” for the community. Does the administration of the national park give people alternative work, which earlier lived on the protected area? Eco-tourism is an activity of the local institution, which gives an economic income and work opportunities. The question is whether this eco-tourism income is distributed equally by the local institution. In addition, this income to the community institution SEDDIEL is a resource to maintain stability to the local institution. Still, the local organisation has not been given the tenure rights and administrative responsibility by the state. The problematic impacts of a weakened local institution will be further examined.

### **1.3 Aim of study**

The study will highlight the local institution as a valuable actor, when governing the commons, of natural resources. In current international conservation of the commons, the local institution has been given too little attention. Effective methods in resource management that can both reach environmental and social sustainability are needed.

The main institution analysed is the local institution, when governing the commons, of natural resources in the national park. Analysing this study based on Elinor Ostroms eight principles show, the local institutions characteristics and status. Knowing that the national park is co-managed between the community institution, the state and NGO, this interaction is important and will also be studied.

This study of Rio Limpios national park contains the three pillars of socio-ecological and economic factors, related to the natural resources being managed in the Natural Park. To understand the complex situation of governing the commons, the social aspect will be included as the prime focus, showing the relation between social and ecological sustainability.

To examine the stability of the community institution it is also important to view the level of participation, when the decisions are being made of the National Park. The local institution's strength has both implications on the sustainability of the natural resources and the social factors for the people in Rio Limpio.

The following research questions will be used:

- What are the different roles and interests of the actors as the state, community and NGO when governing the commons at the national park?
- How stable is the local institution of SEDDIEL when governing the natural resources?
- What empowers local communities and how can governing methods reach social-ecological sustainability?

## **1.4 Delimitation**

I've chosen the village of Rio Limpio and its relation to the protected area because it has a local institution involved in the national park "Nalga de Maco" that I will study. The many stakeholders that govern the national park cannot be studied in this thesis. Therefore I chose to study the local institution as a main objective and its relation to the state and the administrative NGO Fundacion Frontera Futuro of the national park. These are the main actors. Other local institutions in the village will not be studied; I focus on the local institution that is a governing part of the national park.

The local institution SEDDIEL, build its social project by the income of eco-tourism, and this is why it is mentioned in the thesis, although I do not go further into what eco-tourism is nor defines it. It is instead mentioned as a tool for the local institution when governing the commons.

There are many aspects and actors important in this national park, but I want to highlight the local institution, as this institution is often neglected in conservation practices.

## **2. THEORETICAL FRAMEWORK**

### **2.1 The commons**

Garett Hardin wrote that rational beings strive to maximise their gains. Hardin presents solutions of either private or public property, as long as the right over the commons as the national parks was allocated (Hardin, 1968).

The non-sustainable results of several states and privately governed resources have led to a bottom-up approach, which gives more influence on the resources and decision making to the local communities, in other words decentralisation. There are two processes in question, called co-management or Community Based Nature Resource Management (CBNRM). The first mentioned process is a joint management or cooperative in an interaction between the community and central government, governing the resource. CBNRM gives greater possibility to manage the resource with a local institution. Some state regulations, for example a case in India that had a forestry programme which was state regulated, degraded its resources, destroyed indigenous institutions and created conflicts between forest protection employers and communities, and the reason was low local involvement (Jones, Carswell, 145. 2004).

In Africa many of the earlier reserves for hunting remains from colonial times, and have become national parks that still see the locals as a danger to the environment. In the regulation the locals were prohibited to use their resources (Murombedzi, 4, 6, 16. 2003). This is because humans are still separated from the nature, as well as nature is differentiated from culture, according to a tradition of US national park model (Murombedzi, 18.2003).

Some critical to Community Based Natural Resource Management mean that communities are condemned to homogeneous groups, but those are dynamic and different when it comes to gender, wealth, ethnicity, age etc (Jones, Carswell, 147.2004). Power relations and different interests need to be analysed in Community Based Nature Resource Management. Because even though the local institutional management can use its power to keep its social status, it is important to be attentive to marginalized groups such as women who must be represented in the local institution. Even the lack of formal rules can overlook the social and ecological resilience (Jones, Carswell, 147, 2004).

Since 1990 there has been increased support of the existing community based on nature resource management CBNRM (Roe, 6, 2009) which contains complex norms, rules and regulations. Those institutions control the distribution of the benefits and how the resource may be used. Then the process institution is separated in two parts, the formal and the informal. The formal describes leading local tradition, organised user groups, village committees, etc. The informal stands for cooperation, exchange, moral and spiritual beliefs, etc. Most frequently a multiple layer of different institutions, resource rights and competitive resource interests exist. This appropriate management regime is defined by the institutional context and social network (Jones, Carswell, 143, 2004). A common institution is defined as an individual willingness to prevent him or her from gaining personally from the resource and expects the same from the group of members (Jones, Carswell, 143, 2004).

Others mean that common property regimes exist where there is a small economical advantage in production of the resources so that it cannot be transformed into private property, those writers are mentioned by Jones and Carswell (144, 2004). Collective actions have been studied more but these studies have been heavily critiqued as being focused on mostly rational and economic incentives. The other scholar points out that collective action is also affected by symbolic, cultural, political, local and historical factors that also describe the characters of the institutional processes when governing a common collectively (Jones, Carswell, 143. 2004).

One researcher who has identified the local institutional processes is Elinor Ostrom with her eight design principles. They show the robustness and long term perspective of sustainable common property institutions (Ostrom, 2009).

## **2.2 Long-enduring designed principles**

These principles of Common Pool Resources are;

1. “*Clear defined boundaries and membership*” individuals and households can use parts of the CPR which have to be clearly defined. This applies even to the boundaries of the CPR.
2. “*Congruent rules*” is a harmonisation between different appropriation (stakeholders), decision making of rules and local needs. The rules for the appropriation decide time, place, technology, and /or the amount of resource units. These rules are interlinked

with local conditions and provision of rules which need labour, material, and/or money.

3. “*Collective choice arenas*” relates to the arrangements of the rules and its implementation is made with the individuals who are affected by them.
4. “*Monitoring*” is about the role of the supervisor as either the appropriator or the one who reports to the appropriators in the system and controls the behaviour of the members. The monitors are persons who the members trust.
5. “*Graduated sanctions*” are sanctions made when the rules have been violated. After that other appropriators or officials will judge to which extent the person should be sanctioned.
6. “*Conflict resolutions mechanisms*” there are methods in the institution which are cheap and easy to get when conflicts emerge among appropriators, and between them and the officials.
7. “*Recognised right to organize*” the community institution is self-determined and recognised by higher-level authorities and not counteracted by other external organisations and authorities. Their rules do not need the governmental jurisdiction and can be implemented by themselves.
8. “*Nested Units*” are for Common Pool Resources within a greater overlapping system in a complex social network which organise appropriators, provision, surveillance, enforcement, conflict management and governance activities (Ostrom, 90-102, 2009).

Though those have been criticized for not being sustainable institutions, the studies are blamed for several factors, such as the researchers being redundant and expensive, not accounting external environment when focusing on only one resource, for excluding economical disadvantages, ignoring ad hoc processes, blurring the rules and being deterministic (Agrawal, 2001, Jones, Carswell, 144, 2004).

### **2.3 Development and conservation**

The traditional environmental policies of conservation in the developing world are linked up in “myths” called “orthodoxies” which concern nature and environment and the reasons for problems in those areas (Carswell, Jones, 3. 2004, Murombedzi, 4. 2003). Even though the explanations of human impacts in relation to the environment are changing, some of this

highlights the indigenous and interdisciplinary knowledge as to how to address the factors of environmental change in a better way (Carswell, Jones, 9. 2004).

The contemporary environment in Africa can be traced to colonial legacy of the environment. (Carswell, Jones, 4, 2004) Independent governments have inherited the view on how people treat the environment. The narratives of local people's negative impact ever since became the ultimate management of the environment and it had become standardized. This legitimising of the non-Community Based Nature Resource Management was a disaster for local communities, as nature resource management was made by external control, which Homewood and Rodgers note was made to justify the confiscation of land to create wildlife conservation (Carswell, Jones, 5. 2004). The narratives depict the locals in a negative way. Some authors claim it is a preoccupation of people who remain in a pure state not leading to the degradation of the environment. The assumption of this social-ecological relation refers even to the land of agriculture seen as the prime cause of deforestation. Those views are contradictory, with positive impacts on people living close to a forest as creation of forest islands, planting and transplantation of trees. Carswell (2004) meets this criticism on farmers by using historical sources, in particular the agricultural productivity and forestry. Even though new science proves the opposite, scientific literature and environmental organisations continue to feed these orthodox views. Farmers have both shown to have successfully governed their land and maintain productivity. Rather than judging the indigenous producers and small-scale farmers the discussion and criticism should have been about the people with real power and wealth that create greater impact on the environment (Carswell, Jones, 7. 2004).

From a narrative in Ziama (Guinea) local farmers have been assumed to live on deforesting the land (Fairhead, Leach, 23. 2004). The conservation policy used emphasised protecting virgin forests and claimed them to be a global and regional heritage legitimised by moral. The locals should be given political rights over the land. When social needs are no longer referring to environmental conditions there is no legitimate top-down intervention in resource management but instead there will be a social order such as promoting community organisation and decentralising the power. Policy and economy can create space for local institutions to function effectively. This supports and constructs improved socio-economic sustainability - it is social and political values that have created the environmental policies and not the moral fundamentals as a starting point (Fairhead, Leach, 25, 28, 2004). The poor

do not necessarily have to be seen as objects of environmental degradation but innovative and carrying potential and adaptable to changes. Carswell and Jones mentions a writer who means that the poor can mobilise and counteract impacts on demographic, economic and environmental change (Carswell, Jones, 62, 64. 2004).

## **2.4 Empowerment and Conservation**

Poverty means not only lack of resources but even the lack of voice and power which are important factors of well-being (Bauman, 8. 2003). Empowerment is defined to give especially poor people more influence over their own lives, which creates a better prerequisite for better livelihood with food security (Brown, Rosendo, 105, 2004).

The way they are getting this empowerment is mainly through tenure rights over the production assets. To support the current institution or creation of resource groups, the people either need to be managed through their own institution or by state or other group to support the locals to arrange their interests. This creates more people oriented conservation, with integrated development and environmental protection, which is called called “sustainable livelihood security” (Brown, Rosendo, 105. 2004). In the empowerment of locals the external interventions can have a role as supporters, though under local conditions (Brown, Rosendo, 106. 2004, IUCN Council, 2000). Policy makers have neglected the importance of Common Pool Resources to poor people’s livelihood. When empowering locals with Community Based Nature Resource Management this should be seen as a strategy of anti-poverty (Jodha, 1986).

## **2.5 Community Based**

The community is no longer seen as an organic unit, small and with fixed borders, degrading or standing against states or markets (Agrawal, Gibson, 165. 2004). Even though support and recognition of the community is good, there are very little studies on how the process develops when becoming a community based conservation area. To be an effective institution of Community Based Nature Resource Management, a source of income is needed to implement their rules. This source of income needs to be local and collected by users. Community Based Nature Resource Management is not the only way to administrate natural resources. Interactions between the state, international organisations, private ownership and communities are complex and can be hard to define, when analysing which actors are doing what (Agrawal, Gibson, 162. 2004).

### **3. METHOD**

There are often different levels of governance interlinked with small Common Pool Resources management as in Rio Limpio where I studied one of the local institutions and its arranged ecotourism. The eight "design principles" of Elinor Ostrom were the base for the research questions put to those interviewed. The goal was to investigate how the Common Pool Resource Management is organised and its role in and for the village. Even though the reality is complex, the empirical study wants to simplify and go deeper into the local based institutions with their mechanisms and interactions.

The method is qualitative, where the content is being analysed. Studying the local institution with its ecotourism centre and its relation to the national park limited the studied factors. There are multiple organisations, political relations, urbanisation processes, gender relations, the biodiversity of ecological systems, economic realities and other local activities that effect the environment which I cannot include in the study. But these also influence the result of environmental management. Focusing on the eight principles made the study more clear in one way, as I knew what to focus on. But at the same time, the reality is complex and I needed to be flexible and open to answers and other aspects that were outside the spectrum of those principles. I also had to consider SEDDIELS activity with its relation to the state, both its formal and informal role of the national park looking at the interviewees' attitudes towards it.

#### **3.1 Qualitative Research**

For the collection of the material field observations have been made at the ecotourism centre, the village and the national park. I have also observe the use of informants, the collection of documentation from current organisations of NGOs, documentations from the environmental secretariat of the national park, pre-studies with data from the Swedish organisation, respondent interviews and source analyse. I have attended meetings with farmers, organisations and authorities where I could see the attitudes and witness the existence of conflicts.

Before conducting the interviews different aspects of qualitative methods in social science in were studied, in order to become more aware of what strategy to choose when starting the collection of data. Thereafter earlier reports and workers in the village were studied. The interviews were made in the form of a discussion, where I asked supplementary questions. I

tried not to value the comments but react to them and show my utmost interest. It was also my goal to avoid questions where the answers could be predictable due to what the interviewee thought I might want to hear.

The retrospective interviews were made asking them to describe the situation of the nature, the collective tradition and SEDDIEL as an organisation. I have to be aware of the fact that the interviewees' feelings and thoughts, shown in the interview, may change with further experience, time and knowledge. It is common knowledge that we remember concrete events more frequently than thoughts or opinions, so that is why I asked for events (Repstad, 2008).

I recorded the interviews to collect much of the data, but the primary reason was that I did not want to misunderstand them because of the language. With this help was possible to listen to the recordings as many times as I wanted. I looked up those words or sentences that I did not understand. The disadvantage is that people do not feel relaxed telling you inconvenient experiences they have been through, when being taped. On one occasion someone wanted to tell me something in confidence, so I turned off the recording and then he could talk more freely. I told my interviewees that I was flexible and could turn off the tape wherever they felt uncomfortable. I made it clear to everyone that it was only me who was going to listen and use the recording for my thesis. I also informed the interviewees that it was for scientific purposes and that I was interested in their stories, that they possessed a lot of valuable knowledge and experience to share with me. At times I felt that those interviewed were shy or had low self-esteem and doubted they had something important to say. I wanted them to feel comfortable. However, I made no spontaneous recordings when going out observing and doing field studies, all of them were thoroughly planned. Ten people were interviewed and several meetings among farmers, organisations and authorities were attended where I could study the attitude and witness the existence of conflicts.

The information gathered from different institutions gave a broader perspective on the cooperation and definitions of roles. For example the president of SEDDIEL, talked very rationally about the problems and how to manage the conflicts, but in reality there were other relations and problems that were not expressed by the leader. Many people in SEDDIEL represent the more educated and those having more influence in the community. That was why observations and information among the less advantaged was studied as well, such as Haitians, poor farmers and others having fewer possibilities to find other work or to get their opinion heard on the local institution. It was important to see the non-verbal messages that I

would have missed if I had not met them face to face, as well to understand the people's social context. Other people who were critical to SEDDIEL's organisation and conservation of the national park were former employees of SEDDIEL, though some of them were still members of the organisation. Those who had previously worked for SEDDIEL had the knowledge of the earlier system and could see the changes from another perspective. I needed to consider both people inside the board of members and those who had left it because some groups can have a tendency to benefit their own group with their thoughts and ideas (Repstad, 19, 2008).

Another aspect of the study was of gender. I planned to interview both women and men to get an equal amount of information from both. Among the women many had important status in the village and institutions. I interviewed five women and five men and then I had several occasions with informants and exchange with people during the field observations.

In my field observations I followed farmers to their land where their plants were grown, getting my own experience of the working situation. I went into the national park viewing the situation with the deforestation and was guided through the historical changes.

Cultural clashes may be problematic and can lead to scientific effects. Even though one understands the language there can be cultural distances and scientists may not understand the implied messages. Despite the fact that there were a lot of conflicts in Rio Limpio some interviewees were at the same time careful when expressing different opinions. This can, of course, affect the results of the interviews. I am aware of the language difficulties, as Spanish is not my mother tongue. During my five month stay in this village I not only improved my Spanish language skills, but also learned the local dialect and the cultural context. I chose to conduct the interviews during the last month of my stay when my insight and Spanish were strong enough.

The period of time of almost five months when I approached and had a direct relationship with the study object has its advantage as well as disadvantage. I was afraid that as people got to know me I might affect the discussions and interviews and also make them slightly adjust their comments and answers to what they think I might want to hear. That is why I did not interview those I came closest to. The advantage was that I came in close contact with the community observing the project during a long time. The people in the village got to know me so they felt confident telling more inconvenient occasions such as intrigues and conflicts. I

had time to really understand the community with its culture, coming close to the dynamics of the village and its life. This means that I understood the context of my specific case-study better, which gave a deeper insight. However the geographical distance between Sweden and The Dominican Republic is one practical obstacle when there is a need of further information or answers to follow up questions.

Being a visitor and an observer of another culture may have its advantages as one does come into a context which is far away from one's own. That is why I paid more attention to occasions that the locals were ignorant about due to the fact they are used to them. The disadvantage can be that one looks for things one wants and expects to see or assumes them to be true of a developing country or rural area - those are of course mere prejudices. However it helps being conscious and well prepared before entering the field when visiting other realities. To be as objective as possible and getting close to the reality of the interviewed the starting point was always that they answer what they are doing and not what I think that they are doing. It was also my primary goal to be as close as possible to the reality and go for understanding and not explaining the situation (Repstad, 17, 2008).

### **3.2 Source evaluation**

I focused on collecting information mainly from people in the community. There can be important perspectives I don not reach when not studying external organisations and authorities, such as their opinions on the method of conservation and relations within the co-management. But for the study of local community the choice of interviewing more communitarians, suited this study. The ones who were most represented were members of the local institution SEDDIEL, and to have other opinions of others than members I interviewed an ex-president of the local organisation SEDDIEL, one NGO, and the state representative who had their perspectives and critical aspects of the local institution.

The most challenging part was the Spanish language; the recordings of the interviews helped me catch what I missed though it was time consuming.

## **4. EMPIRICAL DATA**

Observation from empirical data I present in following chapter, starts with the location and facts about the national park, then presenting the actors, managing the national park. The chapter continues with historical events of the local institution SEDDIEL and the village Rio Limpio`s development, which takes us to the next level of actual structure of the community organisation. This structure can both lead to institutional stability and conflicts, which will be further explained. The local institution includes many relations and some will be represented. Then the economic situation with the distribution of resources is presented. Summing up, by explaining how those structures and relations affect the environment and social aspects. A detailed examination of the local institutions is made to visible SEDDIELS character.

### **4.1 Rio Limpio and the national park “Nalga de Maco”**

The national park of “Nalga de Maco” the name on the village Rio Limpios conservation, was established 1995 with a territory of 169.85 km, an eco-tourism centre has created next to the national park.. The population in Rio Limpio is approximately 1000 people.

In the protected area the River Artebonito provides Dominicans and locals in Rio Limpio with fresh water. So the interest for the state, NGO Fundacion Frontera Futura and others external NGOs as Kreditanstalt für Wiederaufbau (KfW), Cooperation Technica Alemana (GTZ), is to secure water supply for its own population as well as for their neighbouring country Haiti, which is one of the main motives for conservation of the forest. This is because there is a huge fear of immigrants coming to Dominican Republic`s side of the island in search of a better life (informant, A, 2011).

Formally only the state has the control of the national park, though the responsibility has been given to the National NGO Fundacion Frontera Futuro (FFF).

### **4.2 History of the local organisation SEDDIEL**

Earlier in Rio Limpio they had collective actions in their agriculture during the 1980s. Many farmers see a problem in being governed by Community Based Nature Resource Management on all of the levels for example in agriculture (informant, A, 2011). Even though the result of

the farmers' collective governance was good when it came to production of food, some farmers claim that when income grows, many of the inhabitants want to do earn more money for themselves. SEDDIEL and other institutions recommend collectivism but not everybody in the community agrees with this method of governance. The politics have affected and separated ideological and religious groups into separated parts (informant C, 2011).

The history of the local institution started with the local association ayuda mutu, which state intervention destroyed, although the locals continued with their other activities and after a while they created the Anthroposophic Group of Rio Limpio (GARL) (informant E; 2011). There was a bakery as well as handicrafts for the women and the money was distributed among the community. The projects made by the organisation were fruitful and gained success in many aspects as socially, culturally and in health wise, education and for the conservation of the national park (informant, A, 2011). For example a group of technicians was responsible for increasing the knowledge of sustainable agriculture with capacity building.

The ecotourism activities first started in 1988 with two cottages and one restaurant. The same year as the restaurant was created and the Anhtroposofic Group of Rio Limpio was initiated as well. The Anthroposofic Group was created to be able to give service to the community and distribute money to the projects as well as receive aid money from abroad. Following, the initiation of all these activities they opened a restaurant and build cottages. The development of the institution started with five members who created rules. Later more people were employed who then became the board of directors together with other intended active members. The board could be changed as often as it was considered necessary, normally every second year.

After the creation of the park 1995 there was a time when the farmers tried to find another way of living, when the control of the natural park had become stricter. During the last three years when the state increased its control over the national park, the deforestation decreased, but it increased at another mountain ridge that still is not a part of the protected land. In addition the shift to state control of the national park increased social problems (informant, E, 2011). Even though the community suffered insufficient livelihood, a suggestion had been made by the Ministry of the Environment to include the deforested ridge into the protected

area of the national park (appendix 1, 2009), where there still are daily fires, by communitarians who are struggling to get their daily living (informant, D, 2011).

Now, a lot of the farmers have learned to plant trees such as, pine and other species. The local institution SEDDIEL has been spreading knowledge in the fields of deforestation and in many other areas. In the village today these activities have resulted in considerable knowledge about how to organise themselves in a better way (informant E, 2011).

### **4.3 Institutional structure and conflicts**

The organisation SEDDIEL has an assembly with 29 members and a board of directors. Every second year they change the board of directors at local elections by the assembly. The board of directors meets every month or every second week depending on how much time they have. In the board of directors they have different tasks; planning is made on the basis of the needs. Now there is a proposal from the board of directors to appoint a technical group working with the proposals, because the others from the board do not have time since most of them are volunteers (informant, A, 2011).

Furthermore the president of SEDDIEL also works at The Ministry of Environment. That is why he does not represent SEDDIEL at meetings. Instead the administrator of the eco-tourism centre, who also is on board of the directors, takes part in those meetings of natural resource management (informant, A, 2011).

Members of SEDDIEL and other communitarians claim that the local institution that governs the ecotourism, does benefit the people more equally than it would've done had it been private (informant, A,C). The criticism against SEDDIELS eco-tourism centre is that the project could have benefited the community more than it does and that the organisation employs relatives (informant E, G, 2011). This means that the money is concentrated to a few families rather than being spread in the village, say some communitarians (informant E, G, 2011). This creates conflicts such as questions whether these persons working with the centre increase their own salary by decreasing the money given to the pedagogic projects and do not support the communitarians enough. Those who left the work at SEDDIEL say it is one of the reasons why they started to work with a private eco-tourism centre (informant, E, G, 2011).

Local institutions and organisations managing collective projects are viewed with faith though people are aware that every institution has their problems and conflicts (informant E, 2011).

There is a conflict between farmers and the state when it comes to the use of the national park in the area of Rio Limpio. There was an occasion when people from the village wanted to kill one of the national park guards working for the government authority (informant H, 2011), but who now he is on the board of the directors elected by the members of the community organisation SEDDIEL.

#### **4.4 Cooperation**

Foundacion Frontera Futuro (FFF) is producing wood with eucalyptus trees in the protected areas. However, this is not being appreciated by everyone in the community as those trees need a lot of water and besides there is not an equivalent price on the market that is worth producing them. Until now people in the village do not know where the gain from the production of the trees goes (informant E, 2011).

Fundacion Frontera Futuro supports the local institution by its ecotourism (appendix, 2, 2009), by doing commercials, capacity building and educating guides (informant D, 2011). Other involved organisations in the co-management are the German NGO, Kreditanstalt für Wiederaufbau (KfW) that works to conserve the natural resources and primarily the River Artebonito. They cooperate with Foundation Frontera Futuro and with the Environmental Ministry (informant F, 2011). Kreditanstalt für Wiederaufbau gets support from the NGO Cooperation Technica Alemana (GTZ) which is giving information and studies about geography and naturale resources (informant A, 2011) (appendix, 2, 2009).

#### **4.5 Economy and eco-tourism centre**

Almost the only work that exists in Rio Limpio is within the agriculture sector. This is why most of the inhabitants are farmers (informant, A, B, G, 2011). There are few alternative jobs such as employment at the national or international organisations, governmental authorities and the local municipality. All of these jobs though do not employ locals and there are few resources (informant E, 2011). The eco-tourism centre SEDDIEL is the biggest employer that receives most income to the locals except for agriculture. In addition SEDDEIL helps families in the village with visitors so they can earn more for their living (informant, A, 2011).

There are in total eleven persons who get paid a monthly salary at the eco-tourism centre, where five employees get the biggest amount. There are also pedagogic employers whose salaries are included in the budget of the ecotourism centre. Extra work is created when the eco-tourism centre has more visitors and they hire extra personnel (informant, C, 2011).

The eco-tourism in Rio Limpio is viewed as providing nature experiences for visitors, using the national park. As well those tourist activities are viewed by workers as environmental friendly, when carefully climbing the mountains of Rio Limpio, with respect of the nature. The income to the ecotourism distributed by the assessment of necessity made by the board to invest into the ecotourism centre, for example house building, water and energy supplies, all that strengthens the eco-tourism. Earlier eco-tourism income mostly went to the village, but there was very little money going to improve the centre. The workers at the centre did not get higher salaries either; this is why they decreased money going to the community (informant, C, 2011). Regardless if the ecotourism does not give enough to social projects, community is being helped as the money earned at the centre is also spent in the village (informant, A, C, 2011).

#### **4.6 Environment and social conditions**

SEDDIEL does not have any problems with the government conserving the national park as they live off the nature; the beautiful and conserved national park attracts visitors. When it comes to the notion of communitarians the opinion is diverse, and many do not aware of the environmental issues (informant B, 2011). They cultivate their land with slash and burn technique an old culture, which people have done for over fifty to sixty years to change traditions is difficult (informant C, 2011). There are 488 defined users of the national park, “Nalga de Maco” and the mountain ridge written in a document of the Ministry of the Environment (appendix 2, 2009). If they cannot work on the fields without any alternatives then how can they provide food to their families? (informant, D, 2011) When the situation is getting worse with unemployment, they have to use the forest to be able to plant a banana tree or plant beans. This is how the poor are fighting to survive (informant, E, 2011). The people in the village use the prohibited land because they do not have any other choice! The most frequent sentence every interviewed said was, -“How to survive”, “Como sobre vivir” (informants A, B, C, D, E, G, I, 2011). To be able to find some food they have to go up the hill, down the hill and up, work and down again (informant, D, 2011)

The forest at the mountain ridge is better today as the trees have grown and the mountain chain is now more beautiful than it was eight years ago (informant I, 2011). When the ecotourism project benefits five people in the village there are five less that go to the mountain to burn trees, communitarians answered (informant A, B, C, D, E, 2011).

#### **4.7 Elinor Ostroms eight principles**

1. “*Clearly defined boundaries and membership*” the boundaries of the national park are not clear for all, though most of the questioned members in SEDDIEL know where they lie (informant, F, 2011). A woman working with an NGO in the village says that communitarians in Rio Limpio know the borders better than other villages which have front lines to the national park as well (informant, F, 2011).

Anyone with an interest can become a member of SEDDIEL as there are no formal rules. All you have to do is to write a motivation letter and the board of directors will make a decision based upon personal preferences and after a discussion, the person can enter SEDDIEL (informant C, 2011).

2. “*Congruent rules*” the government has the strength and legitimacy to enforce laws and decides the rules of land use prohibition, which farmers cannot influence (informant, A, 2011). Burning down vegetation and trees is prohibited but sometimes, though very seldom, they get permission to use the land (informant A, 2011). Many communitarians do not see themselves as having any influence on the governance of the national park, so the link to become heard is through SEDDIEL and other organisations in Rio Limpio (informant C, 2011).

It is the board of directors that has the greatest power over the local institutions activities (informant D, 2011). This also includes deciding how much money should be given to the community by the educational programme and salaries (informant C, 2011).

3. “*Collective choice arenas*” SEDDIEL has meetings quite often with the environmental ministry, farmers and organisations about the national park and its activities (informant, A, 2011). Now the environmental authority cannot take any decisions about the national park without SEDDIEL signing the papers, said a board member of SEDDIEL (informant, A,

2011). This cooperation creates arenas of meetings where SEDDIEL can forward communitarian needs together with other governing NGOs.

The local institution SEDDIEL has collective choice arenas within the organisation. The choices are effected by who's in charge by which group in the community, but the hole institution and its decisions does not rely on few persons opinions because of a democratic voting system (informant, C, 2011). But in the assembly of SEDDIEL there is only one Haitian member represented, who is working with Haitian children at the after school centre.

4. *“Monitoring”* Deeper in the mountains but closer to other villages the military have an office to secure the area (informant C, 2011). There are also four people who work with the surveillance of national park and almost all of them are members of the local institution SEDDIEL, legitimised by the community as surveillances, working for the government (informant, A, 2011).

5. *“Graduated sanctions”* If you do anything to the national park and the military find out about that they will search for you and put you in prison according to state law (informant C, 2011). There are no graduated sanctions from the local institution.

6. *“Conflict resolutions mechanisms”* Some of the conflicts have been on the cause of information not being equally accessible for everybody (informant E, 2011). The organisation SEDDIEL and its board of directors claim that the amount of income and its division are transparent as every member has access to the information. Though to make this income information easily accessible there is a suggestion to create an economic list of statistics over the distribution of money. The proposed statistics list is to be created with the help of another private person, who voluntarily wants to contribute and support SEDDEIL as her organisation has interest in environmental protection (informant, A, 2011).

The organisation SEDDIEL is as well the informal diplomatic link to the government and its environmental authority (informant, A, 2011). Some locals claim that the responsibility of SEDDIEL is to solve the problem and conflicts between people in the village and the government when it comes to the protection of the nature, and satisfy local needs (informant C, 2011).

7. *“Recognised Right to organize”* The organisation is independent and legitimised by the state. Now the local institution SEDDIEL makes all of their decisions by themselves for

example activities of ecotourism, but is still not recognised to organise the governance of the national park.

8. “*Nested Units*” One of SEDDIELS prime co-operators is the national organisation Fundacion Frontera Futuro the coordinators of the national park (appendix 2, 2011). Their commission is to promote all kinds of activities that make people avoid the use of the land and burning the vegetation at the ridge (informant C, 2011).

In the state’s document of collaborating institutions from 2009, the local institution SEDDIEL is not mentioned as a partner of co-management those mentioned are Fundacion Frontera Futuro and other external international and national organisations (appendix 2, 2011).

*Table 1, Principles of Elinor Ostrom in relation to SEDDIELS institution and involvement in Common Pool Resource (CPR) management of the national park, “Nalga de Maco”*

Are the principles identified in the case study of Rio Limpio national park?	There are three different levels, Yes, No and Weak of the institutional status.	
Elinor Ostroms eight principles;	Institutional status	
1. <i>Clearly defined boundaries</i>	Weak	
2. <i>Accordance</i>	Weak	
3. <i>Arrangements for collective choices</i>	Weak	
4. <i>Surveillance</i>	Yes	
5. <i>Scale of graduated sanctions</i>	No	
6. <i>Conflict management</i>	Weak	
7. <i>Recognized rights to organise</i>	Weak	
8. <i>Nested Units</i>	Yes	

#### **4.8 Results of empirical data**

- Afterwards the name of the Anthroposofic Group was changed to SEDDIEL which stands for Dominican Service Integrated Development of Local Eco-tourism (informant, B, 2011). This is when the local institution started to focus on its eco-tourism centre.

- The local institution SEDDIEL uses the national park for its ecotourism. This effects the robustness of the community organisation SEDDIEL with an economic income (informant, A, 2011).
- The eco-tourism project legitimises the national park's protection of the land with service and education to the communitarians, which reduces people's dependence on the protected land and the educational programmes motivate the communitarians to not use the protected land (informant, A, 2011).
- The cooperation between SEDDIEL and the environmental ministry is controversial and people have different opinions about it. For example on how SEDDIEL should define its role in and for the community and how it should cooperate with other stakeholders.
- Some members in SEDDIEL wanted to decrease eco-tourism incomes going to the social projects by quite supporting the educational program. But, as there was still members supporting the education, those against couldn't manage to change it, because of the collective choice arena (informant, C, 2011).
- SEDDIEL has included one Haitian in the assembly. The local institution also supports Haitian refugees and immigrants with education. Haitians are discriminated in Dominican Republic but an observant said the village Rio Limpio is friendlier and are more accepting to the Haitian minority then other villages (informant, I, 2011).
- What SEDDIEL has in common with The Ministry of Environment is especially the president of the local institution SEDDIEL who at the same time works for the governmental authority (informant C, 2011). This is considered as both an advantage and a disadvantage. Sometimes it gives the glare that the ministry and SEDDIEL are the same thing. The advantage is that it has increased the local institutions legitimacy and recognition to organise when it comes to decisions of the national park (informant C, 2011).
- The *norm* in the community of using protected land is to protect people rather than the state's law of the national park. This means that communitarians defend land users of the national park, because they do the same (informant, C, 2011).

## 5. ANALYSIS

The analysis starts to focus on the state of the local institution whether it's strong in the context of governing the National Park and arrangement of its local activity eco-tourism. When those are measured according to the eight principles, we can separate the levels of Community Based Nature Resource Management. When defining those levels the analysis continues to find definitions of roles, to understand the result of the governance and the environmental and social impacts, caused by factors such as external intervention. In accordance to the theories the governance will be compared with other examples whether there could be generalisations made and highlighting visible patterns.

The principles of Elinor Ostrom are analysed as followed; the boundaries of who's a member of SEDDIEL and not is clear in the village, though the rules to become a member are blunt. Not having clear definitions of who can get a membership, could mean that those inside the institution can use this defining power to exclude marginalised people with other opinions.

Even if the boundaries are clear of the protected area the rules of using the national park are not totally followed by the community as these rules are broken when locals have no choice and needs food for their family. This shows the problem with rules made excluding those who will be affected by it, as they were not a part of the decision making process. According to Elinor Ostroms principles effective governance would include local decisions or rules being made by or with the community. The aim of the state is not the same as the aim of the community which increase distance between them, paving the way of conflicts. When the community decreases its participation in governing the commons, the management is not effective as it could have been. But the relation between the state, NGOs and the community are slightly changed and improved. SEDDIEL is having an increased role in the protection of the national park.

The first level of arena of collective choice is the assembly of SEDDIEL, which holds a meeting yearly, but it's not enough. There is a problem with the decreased meetings; this is why members and communitarians claim they don't get enough information from the institution. This can establish a conflict between the local institution and locals if there aren't enough negotiations and arenas for dialogue.

The NGOs can play an important role for the local institution to improve internal relations, such as representation by more local groups in the community. This resource can as well support solving conflicts more effectively and increasing the quality of activities the local institution carries out. The cooperation with other NGOs and authorities are strengthening SEDDIEL as local institution, with the knowledge of how to organise. This is done with the help of volunteers from the community and workers from NGOs. The NGO Fundacion Frontera Futuro has seen it's important for the environmental protection to support the local organisation, with its eco-tourism. This in its turn supports the NGOs and the state when the community is more willing to support the protected area since they get something in return; this action is preferable when supporting existing local association (Jones, Carswell, 2004) which has created good relations to keep building on.

The local institutions cooperation with the Ministry of Environment, about the protection of the national park, does as well create the possibility to highlight local needs and opinions. This local involvement decreases the gap between communitarians and conservationists. Sometimes the cooperation creates blunt borders between different stakeholders and questions the local institutions identity. Having the president of SEDDIEL as monitoring the national park creates suspicion among farmers. It's viewed by some, as this cooperation with the state gives the local institution power over the national park. With the power comes responsibility, over rules and regulations of the protected area. Then when those regulations are far from communitarian interest they can put the blame on the local institution and the trust decreases. This takes us to how the local institution is identified and which role it should take in the park.

Being self-determined gives the institution its own identity, being able to make their decisions of the activities. SEDDIEL needs to further define its role by emphasising the boundaries when representing the community to increase the identity of a local institution. The power relation needs to be clear, to avoid create misunderstandings and build confidence, which is the main fundament for a successful institution. As the interviewed said it has both an advantage and disadvantage, having board members of SEDDIEL working for the environmental authority (informant, C, 2011). But, formally SEDDIEL is self-determined when it comes to the eco-tourism and other activities in the organisation. It's self-determined, except when it comes to the governing of the nature resources in the national park. This is an obstacle for the community who needs to increase its participation in the ecological protection and possibility to secure livelihood.

To sum up the principles; as demonstrated in table 1 the principles are not all maintained. The role and definition of SEDDIEL is a bit unclear and they are not given political tenure right of the national park. According to Elinor Ostroms principles of “governing the commons” it’s not in line with her recommended principles of when it’s a stable institution. The national park has still spots where communitarians are still burning trees in the prohibited land and existing conflicts between farmers and state. The state has still obstacles with participation from the community and people still have problem to get their livelihood.

When it comes to the traditions of conservation with its methods, which are containing old narratives the state has showed classical error in its relation to the locals. The state meets the community through their closed NGO, but still on the states conditions. Its fears are based on orthodox narratives, of people being dangerous to the environment which includes NGOs as well. Scared of what will happen when they let go of the control of the national park to the community. This shows as well their next move in increasing the national parks area with the mountain ridge were there were increased fires, without community's part in the decision. Still there isn't many alternative for all farmers and villagers than to move to another area. There the people will continue burning down vegetation and planting food. This means that the deforestation just could move to another area as made earlier (informant, E, 2011).

The state aim to protect the forest and protect water resources with the strategy of conservation growing eucalyptus trees is contradictable. Fundacion Frontera Futuro might think growing trees that they later can sell cannot be other than good. As they are reducing climate change at the same time, but might not have the knowledge of local conditions or holistic perspective. This are waste of resources, focusing on wrong methods which could have been more effective. As locals and farmers are depending on their water they have interest in using it sustainable. As mentioned above communitarians who are sceptical to grow these trees don't see economical advantage, environmental sustainability, or effective water use (informant, E, 2011). Instead locals are growing other and different types of woods. There is local knowledge that benefits protecting projects as shown in this example and would have been good to consult. Though the people living in the area have knowledge of local condition and adapt their way of planting trees (Jones, Carswell, 2004). This shows that NGOs needs to respect indigenous people knowledge (IUCN Council, 2000).

When analysing the status of the human impact of local knowledge, innovation power with interdisciplinary measures and environmental issues, those cannot easily explain humans as devastators, when there is changes in the environment. Rather it shows the problem of external powers using their power for its interest and subjective truths, legitimizing it with international moral (Jones, Carswell, 2004). SEDDIEL understands and does not judge people using the land of the national park as they are a part of the community and daily witness how people struggling to survive. The state or external NGOs don't have the same insight nor can they relate as much as communitarians, of locals everyday life. This is why local representation is essential for successful governance.

## **5.1 Discussion**

As a communitarian said NGOs come to the village and want to protect the world from climate change, but isn't the people in Rio Limpio a part of the world as well, in need of protection?

There is a difference when NGOs act for the village and not with the village as the results gets less successful. Working for the village could neglect social and local needs, which they don't have consciousness of or legitimacy to act in the village. Cooperation increases the chances to implement the governing methods, when adapting to local knowledge. The people in Rio Limpio carry's potential and have proved to be interventionists and not objects for environmental degradation. The historical events of SEDDIEL have already proved they withhold strength, innovation skill and will. The arranged local institution has created handicraft, technical education of environmental and farming methods etc.

When the power of the political right of the land is defined and given the local community, the environmental protection is adapted to what the village has capacity to adjust to. This will increase the stability of the local institution, when increasing the voice of the locals. At the same time the possibilities to secure social resources increases. There is no reason for the state to determine the destiny of the villagers rather is should support the local institution getting strong, protecting what's needed to be protected. When decentralising the power they will increase the means and interventions of economic advantages without deforestation. This policy would empower the community to manage the resources effectively, resulting in rural development.

Communities such as Rio Limpio are not an organic hole, neither a threat to the environment, nor against the state and markets, as long as the cooperation could be based on the surrounding nature and local welfare. To be an effective institution they need a local income which SEDDIEL has, the eco-tourism gives monthly benefits. They have the capacity to impose their own rules governing the national park and the state would decrease the costs to control the area.

This income has as well strengthened the women's position by paying salaries to teachers for the educative programme who are mainly women. The local institutions involvement has given marginalized groups more influence in the village. This has resulted in more powerful women within the institution of SEDDIEL. Well organised local institutions are more equal in distribution of money and can distribute the power more even in the community. Another benefit with the local institution is the proposed stop of eco-tourism incomes going to social projects, which was not implemented. This shows the strength with local institutions as they represent different interest within the village. Collective ruled project is more stable and predictable when it comes to whether it will benefit the community, as it's not represented by few people's interests. They have a great social network of NGOs, private persons and so on. A larger social network results in more access to resources such as people's different perspectives or creative innovations, science and knowledge.

Local institutions has many faces, this is why it is important to look at stable institutions. What do community organisations do to maintain successful natural resources management and equal distribution of both incomes and powers? Interesting is that the local institution has been including a minority the state wants to stop from immigrating. This has resulted in less racism and more inclusion. What if the local institution had even more influence over the park with more locals represented, as many Haitians are poor and needs to use natural resources for their survival. It would be even interesting to further study weather local institutions better can adapt to changes such as in nature and incoming refugees. This takes us to the next level, which of local institutions can best adapt to changes and how are they arranged? Studying the same arrangements when for example it comes to the tolerance of ethnical groups and women represented in the village. Those arrangements can then be used when creating stabile institutions. The local institution has showed flexibility with in its activities, also it is more flexible to local needs and natural changes. Being there locally they witness variations and can quickly adapt to it.

The benefits with consulting with local institutions were showed in the example of Fundacion Frontera Futuro planting Echinacea. Instead the locals could have increases the production of food and woods. While instead the NGO plants trees at the same time as the community are prohibited to use the land of the national park. Their message of claiming to protect the water becomes questioned and as well as the trust of the NGO.

The method of empowering community institutions by giving them increased influence of national parks also decreases poverty. Or, if we study the international arena what could happened if more NGOs and states started to cooperate and support local institutions. The science as by Elinor Ostrom (2009) is evident and it is time to let go of central control giving the locals a chance to engage themselves in their communities. Decentralisation together with cooperation between state, NGOs and private ownership could meet new challenges differently. Traditional conflict relations between state and communities would decrease. The energy and resources could be put in increasing the livelihood and sustainable development. The Conservation organisations can affective the protection of natural resources and humanitarian organisations can fight poverty. By the same method with empowerment of local institutions, were the increased role of international organisations could be to support those arrangements. Where they could attend money and power being equal distributed. External organisations could give methods as democratic tools on how to organise, to make sure the power is decentralised, so the community won't be controlled by elite groups. Being observant on how the institutions are arranged and how to help it become more successful. But all cooperation and interaction must be based on mutual respect and trust.

Poor people are so much more than “poor”; rather it is the institutions with real power that have to think more holistic. Rather, bigger then simplistic explanations of realities and human relations to environment, which are far more complex than those orthodox narratives. The local communities should increase their self-esteem and believe in their institutions. Having the courage to organise natural resources and claim the right over it. In addition they should search for cooperating partners that can assist and contribute with resources, scientific and organising knowledge, and recognition. Then instead of viewing the natural resources as “tragedy of the commons” this case-study rather highlights the “possibilities of the commons”.

## 5.2 Conclusion

In Rio Limpio the main and formal power over the national park is the state. They implement rules as of sanctions, environmental policies, borders of the protected area, gives dispense to use land and distributes responsibility to those they have faith to do so. The NGO Fundacion Frontera Futuro is delegated to be the coordinator and cooperates with different actors.

SEDDIEL is the local institution and in power relation being the one with lowest influence over policies of the national park. They are carrying the aim to increase the local representation when deciding rules and regulation of the national park. The influence the local institution has over rules and policies are on the conditions of the state. But they have an informal role, when legitimizing the protection of the environment by arranging activities and social projects. The local institution becomes empowered with increased tenure right over the conservation area. But, the state still acts as if humans are the threat to environmental protection, with few attempts to a dialog with the communitarians. Their interest is geopolitics and conservation, and don't see it compatible with covering all communitarians social needs.

The local institution is weak according to Elinor Ostroms principles when it comes to the governance of the national park, but has potential to become more stable. The implications of a weak community institution are; reduced local participation, conflicts, social problems and decreased legitimization to protect the National Park.

What we can see is that the stakeholders who's external, focuses on the ecological preservations with conservation methods, when the local institution increases the insight of social needs. Those two would create balance between the two aspects of social needs with the ecological. First when both ecological and social aspects are considered there will be a sustainable development.

## REFERENCES

Agrawal Arun, 2001, *Common property institutions and sustainable governance of resources*, Elsevier Science Ltd. Retrieved from; <http://www-personal.umich.edu/~arunagra/papers/Common%20Property%20Institutions%20and%20Sustainable%20Governance%20of%20Resources.pdf> 2011-04-14

Agrawal Arun, C Gibson Clark, 2004, Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation, In: Jones Samantha and Carswell Jones, *Environment, Development & Rural Livelihoods*,. Earthscan, London and Sterling, VA p. 253

Baumann Pari, 2002, *Improving access to natural resources for the rural poor*. Food and agriculture organisation of the United Nations (FAO), Retrieved from; <ftp://ftp.fao.org/docrep/fao/006/ad683e/ad683e00.pdf> 2011-08-09

Brockington, Dan, 2006. *Conservation, Human Rights, and Poverty Reduction*, University of Oxford, Retrieved from; <http://cmbc.ucsd.edu/content/1/docs/brockington.pdf> 2011-05-20

Brown Katrina, Rosendo Sergio, 2004, Environmentalists, Rubber Tappers and Empowerment: The Politics and Economics of Extractive Reserves, In: Jones Samantha and Carswell Jones,, *Environment, Development & Rural Livelihoods*,. Earthscan, London and Sterling, VA p. 253

Carney, Diana, 1999, *Sustainable livelihood approaches; progress and possibilities of change*, [http://www.eldis.org/vfile/upload/1/document/0812/SLA\\_Progress.pdf](http://www.eldis.org/vfile/upload/1/document/0812/SLA_Progress.pdf) 2011-04-20

Carshwell Grace, Jones Samantha, 2004, Environmental Problems in the tropics: Challenging the Orthodoxies, In: Jones Samantha and Carswell Jones, *Environment, Development & Rural Livelihoods*,. Earthscan, London and Sterling, VA p. 253

Champell, Tom. 2006, *Devolved Natural Resource Management as a Means of Empowering the Poor: Rhetoric or Reality?* Troicare. Retrieved from; <http://www.trocaire.org/resources/tdr-article/devolved-natural-resource-management-means-empowering-poor-rhetoric-or-reality> 2011-05-11

Fairhead James, Leach Melissa, 2004, False Forest History, Complicit Social Analysis: Rethinking Some West African Environmental Narratives, In: Jones Samantha and Carswell

Jones, *Environment, Development & Rural Livelihoods*, Earthscan, London and Sterling, VA p. 253.

Hardin, Garrett, 1968, " *Tragedy of the Commons* ", Published in Science Magazine, Retrieved from; [http://www.garretthardinsociety.org/articles/art\\_tragedy\\_of\\_the\\_commons.html](http://www.garretthardinsociety.org/articles/art_tragedy_of_the_commons.html)

IUCN Council, 2000, *Policy on Social Equity in Conservation and Sustainable Use of Natural Resources*, Adopted by IUCN Council Meeting, Retrieved from; [http://cmsdata.iucn.org/downloads/sp\\_equity\\_policy.pdf](http://cmsdata.iucn.org/downloads/sp_equity_policy.pdf) 2011-05-14

Jodha N S. 1986, *Common property resources and rural poor in dry region*, Retrieved from; <http://www.jstor.org/pss/4375858> 2011-05-19

Jones Samantha, Carswell Grace, 2004, Property and Institutions and Community-based Management, In: Jones Samantha and Carswell Jones, *Environment, Development & Rural Livelihoods*, Earthscan, London and Sterling, VA p. 253

Murombedzi. James C. February, 2003. *Pre-colonial and colonial conservation practices in southern Africa and their legacy today*. Retrived from; <http://dss.ucsd.edu/~ccgibson/docs/Murombedzi%20-%20Pre-colonial%20and%20Colonial%20Origins.pdf> 2011-08-09

Ostrom Elinor, 2009, Governing the Commons, *The evolution of institutions for Collective Action*, Cambridge University Press p.280.

Repstad Pål, 2008, Närhet och distans, *Kvalitativa metoder i samhällsvetenskap*, Studentlitteratur. p.191.

Roe Dilys, Nelson Fred, Sandbrook Chris, 2009. Community management of natural resources in Africa. International Institute for Environment and Development, Retrieved from; <http://pubs.iied.org/pdfs/17503IIED.pdf> 2011-08-08

Schelhas John, E Ruth, Sherman, Timothy J. Fahey and James P. Lassoie, 2002. *Linking community and national park development; A case study from the Dominican Republic.*, Retrieved from; [http://www.srs.fs.usda.gov/pubs/ja/ja\\_schelhas001.pdf](http://www.srs.fs.usda.gov/pubs/ja/ja_schelhas001.pdf) 2011-05-14 p.140-149

## **Appendix**

Appendix 1- 2009, Map of Rio Limpio, National Park (in spanish)

Appendix 2- 2009, Documento PM PNLNM- (in Spanish)

Appendix 3- 2011, Interviews, Informants A,B,C,D,E (in Spanish)

Appendix 4- Intro

Appendix 5- Theory

Appendix 6- Empirical Data

Appendix 7- Private eco-tourism

## **Interviewed**

Informant A, 2011-17-01 Rio Limpio

Informant B, 2011-23-01 Rio Limpio

Informant C, 2011-16-01 Rio Limpio

Informant D, 2011-15-01 Rio Limpio

Informant E, 2011-23-01 Rio Limpio

Informant F, 2011-5-01 Rio Limpio

Informant I, 2011-20-01 Rio Limpio

Informant G, 2011-28-01 Rio Limpio

Informant H, 2011-01-03 Rio Limpio

Informant I, 2011-04-21 Stockholm

Informant F, 2011-25-01 Rio Limpio

Informant K, 2011-13-01 Rio Limpio