PROTECTING NATURE, PRESERVING PEACE

Two cases on the influence of parks' implemetation over conflict escalation in West Africa

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Executive Summary

Discourses on nature protection mainly focus on the effectiveness of protected areas models in reaching their central goal, which is to protect the nature. Little attention is given to the influence of nature protection methods on conflict escalation.

The focus of this paper is the influence that protected areas have on the local population in West Subsaharan Africa. More precisely, relying on a structured, focused comparison, the thesis investigates whether the design and implementation that relies on a community-based approach is more effective in preventing conflict escalation than the design and implementation based on the conservationist approach, in the West African context.

Two protected areas, implementing two very different approaches to nature protection are investigated: (i) the W Park between Burkina Faso, Niger and Benin which was created on a conservationist model; becoming a reserve with restricted access in order to keep the nature protected from external interferences. And (ii) the APT (Transboundary Protected Area), situated between Guinea and Guinea Bissau which was founded on a community-based model; following the idea that the population needs to get involved in every step of the park implantation.

Based on the analyses it is suggested that the community-based approach applied in a correct manner, is more effective in preventing conflict escalation. However, the community-based approach has many pitfalls. If not applied correctly it could create inequities that potentially could make it as vulnerable to conflict escalation as the implementation and design based on the conservationist approach.

Acknowledgments

The amount of things I have learned while working on this thesis is countless. I met various challenges that made me learn more about the topic treated, the process of researching and reporting, and even myself. Different people have contributed to this learning process both with suggestions and challenges. I would like to thank some of them for their help: my supervisor Morten Bøås, for his sharp and concise comments; my kind friend Katherine Robinson, for her language tips; Tor Otterholt, for his enthusiastic feedback, arrived when most needed. The people at the University of L'Aquila for being source of inspiration; among those Prof. Angelo Turco for his fascinating ideas, Antonietta Vallodoro and Pina Leone for their company in the African nights, and Claudio Arbore for being a cleaver and dependable travel and work companion. I cannot name all the people met both around the W Park and the APT Guinea (Guinea Bissau), but I deeply thank them all. Some friends made me feel home while writing, and supported me: Gro Mette Moen, Stina Hassel, Ioanna Paraskelidi, Emanuela Luglio; while others where always there: Alessandro Gaudenzi and Chiara Di Fonzo, thank to you, and to all other friends for the support. A warm thanks goes to my loving family in Italy who made me free. And to the Veum and Gjelsten families for being so welcoming. Finally to my husband Birger Gjelsten Veum, who supported me along the whole process, and makes me happy every day.

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Venusia Vinciguerra

"… A place is not a place before a person has been there.
A person isn't a person before they have a place in which to be."

Christensen, L. S. (2004:644) *The Half Brother,* New York, Arcade Publ.

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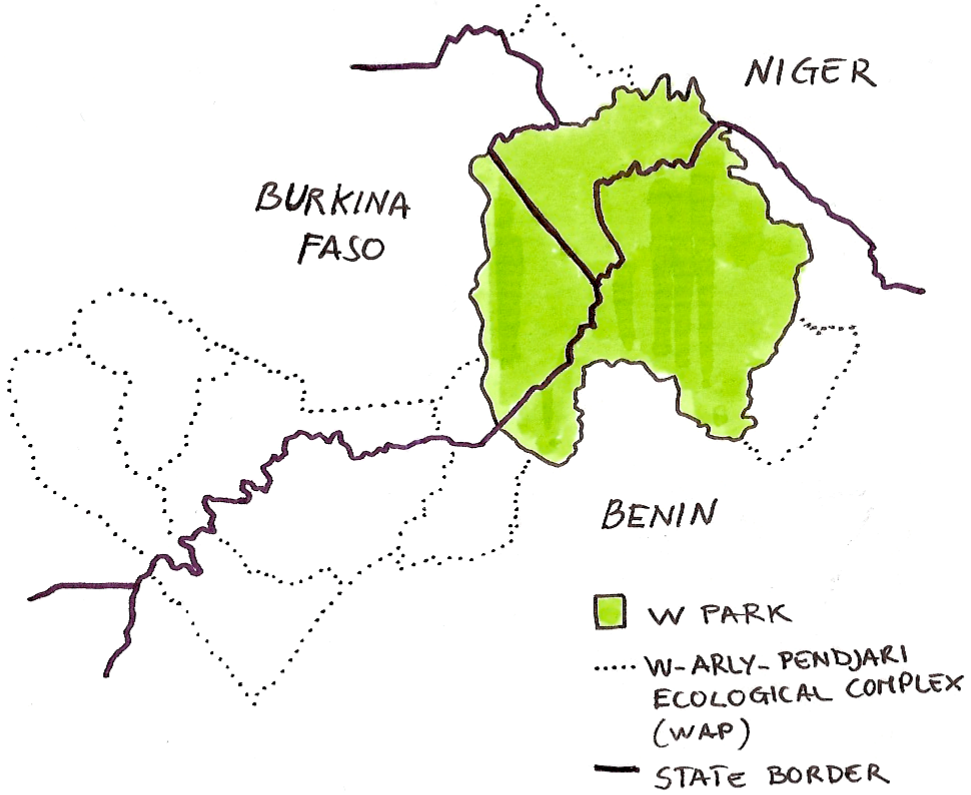
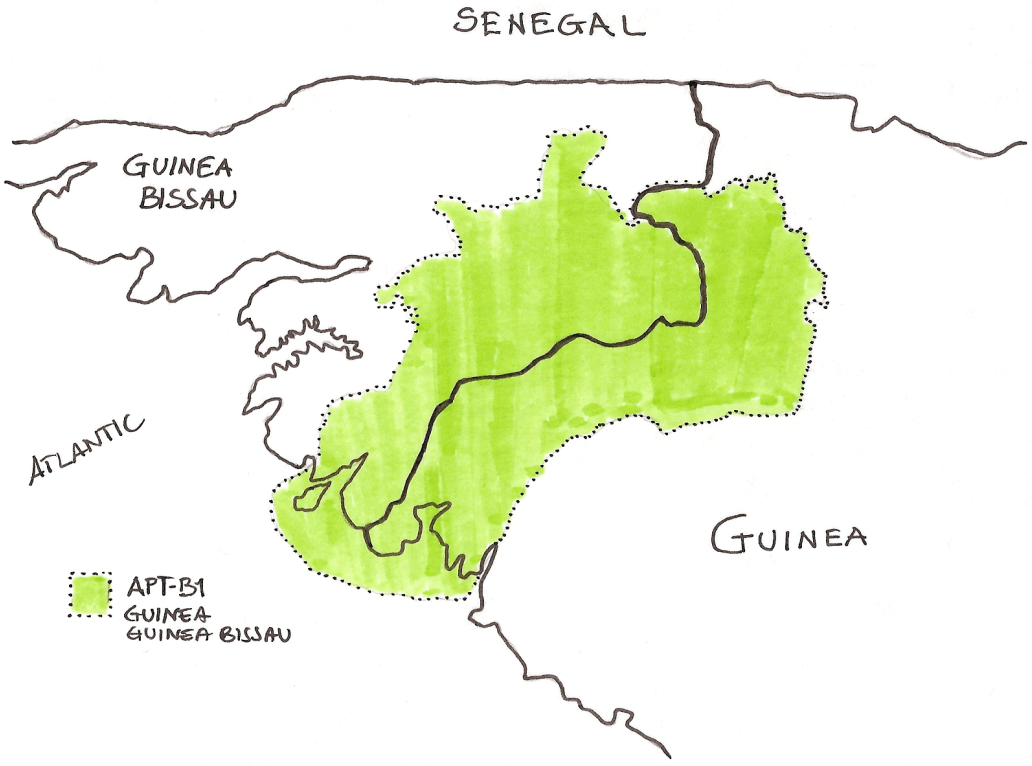
List of Abbreviations

AGIR	- Appui à la Gestion Intégrée des Ressources (Regional Program)
APT	- Aire Protégée Transfrontalière
CRD	- Community of Rural Development
ECOPAS	- Ecosystème Protégé en Afrique Soudano-sahélienne
FAO	- Food and Agriculture Organization of the United Nations
IUCN	- World Conservation Union
PRABV	- Programme Régional d'Aménagement des Bassins Versants
WAP	- W-Arli-Pendjari ecological complex
ZCC	- Zone de Conservation Communautaire
ZMD	- Zones de Mise en Défens

Map of the W Park and WAP location between Burkina Faso, Niger and Benin:



Map of the APT Guinea-Guinea Bissau:



1. Introduction

In the last forty years the number of Protected Areas (hereafter written as PAs) worldwide has grown to more than 100,000 (Kothari, Lockwood et al. 2006). This trend is expected to continue over the next years (Ibid), and conflicts might arise and escalate; therefore, there is a need for deeper understanding of the implementation and management of PAs (FAO 2003). Furthermore, as pointed out by Birkegård, great effort is spent in developing innovative systems of nature management, while little energy is given over to analysing the multitude of on-going projects (1993:28).

According to the World Conservation Union (IUCN), "nature protection occurs when an area of land and/or sea is especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means" (IUCN 1994). This definition contains a number of different ways to protect nature. Discourses on nature protection mainly focus on the effectiveness of protected areas models in reaching their main goal, which is to protect nature. Others, however, focus on the sustainable development connected to the implementation of protected areas. Examples of different approaches are given from the literature on the "tragedy of the commons", where issues on common resources are discussed in relation to rights of access to them (Hardin 1968).[1] It is not unusual that some protectionists consider the local population an obstacle to safeguarding nature, and different strategies are developed to reduce their influence.[2] Those park managers favour PAs based on a *conservationist* approach, with little role played by the local population (paragraph 1.1.1). Whereas, other protectionists support a *community-based* approach where the local population is involved both in the creation and management of the PA (paragraph 1.1.2). However, while the literature on the natural environment is quite large and diffuse, studies on methods of establishment and management of PAs are restricted to technical papers (Kothari,

[1] On the topic see for example: Birgegård (1993).
[2] In this thesis *nature protection* and *nature safeguard* will be used interchangeably. With the term *protectionists* I intend the managers, ecologist, etc. that have as a goal the nature protection of an area. It will be used interchangeably with the terms *park managers* and *conservationists*.

Lockwood et al. 2006). They answer questions of efficacy in protecting the environment and/or bringing benefits to the local population. Very little attention is given to the influence of nature protection methods on conflict escalation.

As a contribution to filling the gap in the available literature, this thesis will take a closer look at PAs; shifting the focus towards the conflicts that can arise when an area is addressed to protection. I suppose that different approaches to nature protection can influence the occurrence of conflicts. The types of conflicts that can occur can be divided into two main categories: (i) conflicts between the local population and the PAs' management and (ii) conflicts within the local communities.[3] These clashes are obviously problematic for the actors involved, making the prevention of conflicts a goal in itself, but conflicts can also undermine the goal of protecting nature. Accordingly, a reduced number of quarrels should also facilitate the protection of nature. Nevertheless, in this study no evaluation is made regarding which of those two approaches performs better in preserving nature. My focus explicitly addresses conflict escalation related to the implementation of PAs.

I have chosen to focus on the influence that protected areas have on the local population in West Subsaharan Africa. More precisely I investigate two different protected areas that have two very different approaches to nature protection. One is the W Park between Burkina Faso, Niger and Benin; it has colonial roots and it is based on a conservationist approach. The W Park was created on the model of a reserve with restricted access in order to keep nature protected from external interferences. [4]

The second protected area analyzed is situated between Guinea and Guinea Bissau (APT Guinea-Guinea Bissau), and it is based on the idea that the population needs to

[3] My understanding of conflict in this thesis is of a social condition that arises when two or more actors struggle because they have incompatible or opposing needs, wishes, or demands over resources (or perceived as such by the actors). Conflicts over natural resources can take place at different levels and with different intensity (confusion and frustration, disagreements, quarrels, intense confrontations, violent actions, etc.). The conflicts treated in this thesis are mostly local, however some go beyond local interactions, engaging stakeholders and processes at different levels. Conflict will be used interchangeably with the terms clash and quarrel. For more information on conflict and natural resource management see: Buckles, D. (1999).

4 In this area the river Niger makes several sharp turns, which together form the shape of the letter 'W' from which the park takes its name. For interactive maps of the park see: http://www.multimap-parcw.org/map.swf

get involved in every step is an elaboration of a similar figure from the park implementation, including the individuation of its shape and location.[5]

The goal of this investigation is to see whether the design and implementation that relies on the community-based approach is more effective in preventing conflict escalation between conservationists and local people, as well as within local communities, than the design and implementation based on the conservationist approach, in the West African context.

In starting this research I imagined that the hypothesis would be proven, showing with a good margin that the APT community-based approach is less conflict prone then the W Park conservationist approach. The reasons for this are to be found in my field experiences, which gave me the impression that people were struggling more around the periphery of the W Park than in the APT. In addition, I personally sympathized more with the APT inclusive approach than the W Park authoritarian one. Nevertheless, as this thesis will show, things are not as straightforward, and my expectations have been proven slightly wrong.

The next part will offer an introduction to the two different approaches to nature conservation analyzed here. The chapter identifies the research question that guides the thesis, discusses the methodology used to deal with the research question, and outlines the structure of the thesis.

1.1 Two approaches to nature conservation

1.1.1 The W Park - conservationist model

The protection of wildlife in Africa began in the 19th century to safeguard big mammals in game reserves for the use of the colonialist (Child 2004; Grove and Anderson 1987). This tradition became the most widespread method of wildlife protection: a *conservationist* model comparable to a fortress (Himmelfarb 2006). In

[5] APT stands for *Aire Protégée Transfrontalière* [Transboundary Protected Area].

this model protection is achieved through fences and blocked interaction with the external world. Decisions are taken top-down, with scarce or non-existent interaction with the local population (Kamugisha, Stahl et al. 1997; Kothari, Lockwood et al. 2006; Grove and Anderson 1987; Himmelfarb 2006). It has been stated that the creators of these parks often perceive the resistance of the local population to be a result of ignorance and misunderstanding (Neumann 1998).

Supporters of this approach believe that by isolating the park from external interferences, the flora and fauna are efficiently protected. Therefore, the preservation of the environment and the maintenance of biodiversity are the goals that justifies the conservationist approach (Kamugisha, Stahl et al. 1997; Kothari, Lockwood et al. 2006).

In the 1980s, sustainable development became a major concern in the international arena. This led to an increased attention towards clashes between park managers and the local population. One of the outcomes was the softening of the conservationist approach through the introduction of *buffer zones*. Buffer zones are understood as portions of land adjacent to and encircling the park, where relations between the natural environment and people are promoted (Brown 1992). Buffer zones are intended to reduce the direct impact on the PAs while trying to provide benefits to the local population (Wells, Hannah et al. 1992; Kamugisha, Stahl et al. 1997; Neumann 1998). The implementation of the W Park began in 1937 based on the conservationist approach, with the addition of a buffer zone in 1984.

1.1.2 The APT Guinea – community-based approach

A conservation model that more actively involves the local population is the community-based approach.[6] Kothari, Lockwood et al., describe the move towards the community-based approach as a paradigm shift brought mainly by the following

6 "Community-based" is an expression widely used in different fields of research. It is therefore difficult to give a general definition of it. However, my understanding of it, in this thesis, is of an approach to conservation that takes great account of the local populations at different stages of the PA's implementation and management. Problems connected to the use of this concept will be discussed in the next chapters.

factors: (i) a better understanding of human beings' role in shaping enivronments; (ii) the increased awareness of local communities' culture, knowledge and rights; (iii) the democratization and decentralization of power, etc. (2006). Furthermore, supporters of this approach believe that rival attitudes between conservationists and the local population may increase local resentments towards wildlife protection. This resentment develops into the idea that governments are more concerned with the survival of plants and animals than that of human beings (Ghimire 1991). Consequentially, clashes between the locals and the administration might arise.

In the community-based approach the local population has a participatory role in the design, implementation and management of the protected area. The idea is to create a synergy between the population's prosperity and nature conservation, linking them (Wells, Hannah et al. 1992; Kamugisha, Stahl et al. 1997; Neumann 1998). This approach is increasingly employed, with a wide range of different applications, the APT being one of them. As will be later illustrated, the APT approach is based on a deep understanding of the local context; taking into great consideration the peculiarities of West African societies, with their traditional as well as their state power systems (paragraph 2.2). The community-based approach is linked to the idea of sustainable development and has gained significant support from the international community.

The analysis conducted in chapter four will illustrate that both methods contain some pitfalls and concerns related to their implementation. Here it can be briefly anticipated that in the W Park problems seem to be mainly the consequences of enforced displacement of the local population, and of clashes between two logics (legality/legitimacy), each transforming space into territory through different strategies, those of the conservationists and those of the local population (Turco 2002b). In the APT challenges are related to the difficulties of correctly identifying

territorial structures and the interlocutors, with consequent risk of fallacy and feelings of inequity (Arbore, Leone et al. 2005).[7]

1.1.3 Significance of the study

As mentioned above, the existing studies analyzing environmental protection focus primarily on evaluating the efficacy of those models in reaching their goal of protecting the natural environment. More recent studies focus on the capacity of bringing development to the population that lives close to the PAs. Nevertheless, there is a lack of investigation concentrating on the clashes that nature protection might provoke. The aim of this thesis is to contribute towards filling this gap and investigate whether the design and the implementation of West African PAs can influence potential conflicts between conservation managers and the local population, as well as within the local population itself. Therefore, this study does not analyze whether one of those two approaches performs better at preserving nature.

The standard of living of people in close proximity to PAs can depend on the choices made by the PAs' resource managers (Kothari, Lockwood et al. 2006). Often when a park is implemented people have to be displaced; many need to change their habitual activities (find a new home, stop hunting in a certain place, find a different area to exploit, find new ways to secure income, etc.), (Himmelfarb 2006). These factors are often a source of conflicts. Therefore, it would be interesting to see which procedures of PA implementation can positively affect the relationship between the PA and the local population. In this thesis I will specifically explore how the W Park and the APT were designed and implemented, and how the local population coped with the introduction of these two protected areas in relation to conflict escalation. This thesis is an attempt to contribute to the debate around nature management and ultimately, the prevention of environmental conflict on a local scale.

[7] For an introduction to the notions of legality and legitimacy, territorial structures and interlocutors alluded to here, please see chapter two.

1.2. Hypothesis, Method and Research Question

1.2.1 Hypothesis

As already outlined, nature protection occurs when a portion of land and/or sea is especially dedicated to the protection and maintenance of biological diversity and associated cultural resources (IUCN 1994). The W Park and the APT exemplify two different approaches to nature management. They share the same aim, which is to protect nature; however, how they relate to the local population varies. My assumption is that the design and implementation of a PA can influence the occurrence of conflict escalation. More specifically, I want to explore whether a community-based PA is more effective in avoiding conflicts than a PA based on the conservationist approach. The lack of previous research on this aspect made me decide to use material from my direct field experience in the W Park and in the APT. My fieldwork in those areas was carried out between spring 2004 and spring 2005. The fieldwork in the W Park (spring 2004) concerned a research project on the nomadic shepherds in and around the W Park. The work in the APT (fall 2004 and spring 2005) was qualitative and quantitative fieldwork research for the collection and elaboration of useful data necessary to produce the APT's management plan.[8] Furthermore, I was interested in relating this research to West African countries, where the social structures are often characterized by a duality; the heritage of the introduction of the colonial power system overlapping with the traditional one (chapter two). The two cases analyzed served to answer the following research question:

Is the community-based design and implementation more effective in preventing conflict escalation than the design and implementation based on the conservationist approach?

To understand the dynamics between protected areas and the local populations in West Sub-Saharan Africa I needed to investigate the concepts on which the design of the W Park and APT are based, and the way these protected areas are implemented.

[8] Prof. A. Turco, University of L'Aquila – Italy, supervised both studies. The reports can be requested from the author or from the PAs' administrations (ECOPAS for the W Park, and AGIR for the APT Guinea).

As will be shown more extensively in chapter two, the W Park's design and implementation are based on the idea of nature protection through separating an area from human interaction. Its implementation started in 1937 and continued until the late 1950s, incorporating a top-down decision-making process, which entailed scarce interaction with the local population. The W Park is now one component in the more extended WAP ecological complex, which includes the 'W', Arly and Pendjari parks, along with neighboring hunting areas and reserves.

The APT is a more recent project and is the youngest branch of a more extensive project called AGIR.[9] As explained earlier, the APT design and implementation are based on a deep understanding of the local context. They rely on a human geographical approach based on *territorial structures* (Turco 1999). I will explain more extensively in the next chapter what is understood by territorial structures. Here it will suffice to mention that they are social and political constructions, created by human beings in order to administrate the *reality* (Arbore, Leone et al. 2005). The starting point is that the *space* is chaotic until humans symbolically and materially elaborate it, transforming it into an organised *territory* (Turco 1988; 1999). Then the territorial structures become the organised shapes of the territory, for example associations, state, religious hierarchy, etc. That means that the creation of the APT is based on a deep understanding of both well known and less well known aspects of West Africa's territorial structures, from the state's administrative hierarchy to the traditional order of social life (as for example the village chief, the land chief, youth groups, etc.), (Arbore, Leone et al. 2005; Turco 2005; Vinciguerra 2005).

The main difference between the two approaches is thus the degree of consideration of what is in the territory before the implementation of the protected area, and the degree of involvement of the local population in the decision making process. Nevertheless, both the W Park and the APT are characterized by interventionist approaches, since

[9] The other three components of AGIR are (i) a PA between Guinea and Mali, (ii) the National Park of Niokolo Koba and the National Park of Badiar and their peripheries between Guinea and Senegal, and finally (iii) the National Park of Haut Niger and its periphery in Guinea (fig. 6 paragraph 4.1.2).

their implementation results from external initiatives (colonial power, external donors, etc.).

As will be shown in this thesis, the different approaches applied in the two PAs can influence the occurrence of conflict escalation both between PAs and local people and within local communities, with less conflict occurring in the APT compared to the W Park.

1.2.2 Method

During the research process a number of methodological challenges emerged, such as defining in a meaningful and resolute manner the hypothesis, the design, the data collection and analysis and the final exposure. In addition, choosing the scientific approach to use in the study was itself a challenge. Depending on the angle preferred, these approaches can vary from strict quantitative analysis to open qualitative studies. As my interest is to analyze whether different design created different outcomes between two differently protected areas, I chose to rely on a comparative method.

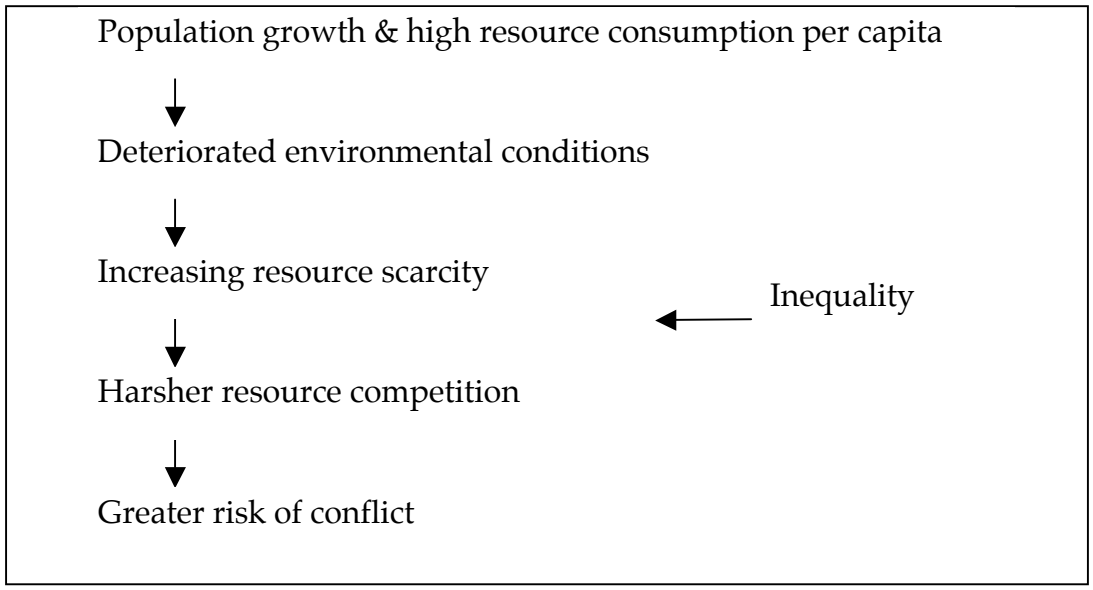
The approach used here is a qualitative case study that relies on the method of structured, focused comparison. As pointed out by George and Bennet, the method is *structured* as general questions reflecting the research goals asked of each case studied in order to guide and standardize data collection for a systematic comparison (2005). According to the authors, "the use of a set of general questions is necessary to ensure the acquisition of comparable data in comparative studies" (Ibid: 69). It is, in other words, necessary in order to guarantee validity. The method is furthermore *focused* because only certain aspects of the cases are examined, leaving out those that are not directly relevant to the analysis (Ibid.).

My intention was to use selective elements to answer the research question. For that reason I chose to use the structured, focused comparison approach, because it well suited the goal of the investigation. Through comparison of the W park and APT it was

my intention to understand the causal conditions that generate a different outcome (Ragin 1987; Ragin 1994; Mills 2006). In this specific case the hypothesis already gives the PA's design (our independent variable), as a possible causal condition for a different level of conflict around the PAs (our dependent variable).

1.2.3 Operationalization

To test the hypothesis in accordance with the method of structured and focused comparison, I chose to use the environmental conflict model created by Gleditsch (Diehl and Gleditsch 2001):



This model is composed of a set of causal conditions that escalate the risk of environmental conflicts. The model provided the means to apply the method of structured, focused comparisons because it has causal conditions that can be analyzed in both cases and then compared. Accordingly, I used this set to analyse the W Park and the APT in a standardized and systematic fashion, to increase the validity of the comparison. As will be illustrated below, population growth and high resource consumption per capita; deteriorated environmental conditions; harsher resource scarcity; inequality and harsher resource competition are the variables on which I focused my research in order to test the hypothesis.

As outlined, I chose Gleditsch's model because it provides a straightforward example of the steps leading to an escalation of environmental conflict. In chapter four, the W Park and the APT are analyzed and it is shown how the steps of Gleditsch's model are relevant to the conflict escalation around the protected areas. For example, in order to create the W Park, some villages were forced to relocate outside the park's borders. This not only created general discontent but also augmented population density in some neighbouring districts (which can be connected to the population growth of the model). This density augmentation, together with the reduction in available land (now partly occupied by the park), increased the competition over the remaining available resources (harsher resource competition). Consequently, the remaining land became more deeply exploited, resulting in an impoverishment of the soil (deteriorated environmental condition). Further, the displaced people lost their rights of access to their land (now inside the park), which required them to ask for land exploitation in the villages where they resettled. However, as newcomers, they did not present a strong claim to available land.[10] Thus they experienced inequity twice over; first through a lack of access to their land and then through marginalization in their attempts to access new land.

This Malthusian-inspired model has been criticized by many (Godwin 1820; Woolston 1924; Simon 1996). However, in this thesis I do not enter into the discussion around this theory since the model is used as an instrument to guide the analysis as indicated by the method of structured, focused comparison. Nonetheless, the choice of using a Malthusian model to discuss environmental conflict issues should not leave us astonished. In the 1980s discourses on environmental protection shifted their view on the major causes for environmental degradation towards poverty. The new strategy of ecologists moved towards "sustainable development". Broch-Due suggested that this approach is a replacement of the Malthusian connection between population growth/resource scarcity, with a newer connection between population poverty/environmental protection (Broch-Due and Schroeder 2000).

10 For a more extensive exposition of the relation between AP areas and the Gleditsch's model see chapters four and five.

Finally, I do not consider the starting point of Gleditsch's model (population growth) on a global scale, but on a local scale. The population growth is here a consequence of population relocation outside the PA's boundaries. Consequently, the augmentation of population density around the PAs is understood as an equivalent to population growth.

The use of the structured, focused comparison in conjunction with Gleditsch's model was also of help in overcoming the problem of explanatory variables surpassing the features by which a case study can be assessed. Outcomes are the product of multiple combinations of circumstances. Accordingly, it is not possible to identify with certainty which variables are crucial to influence an outcome (Ragin, 1987). Nevertheless, the method of structured, focused comparison was chosen as an attempt to reduce this problem. Indeed, it was of help in gathering the existing and pertinent data regarding the precondition of the studied outcome. Finally, with the aid of Gleditsch's model, the analysis was structured in the same way for both protected areas, in order to address the problem of multiple causations (see also 1.2.5).

1.2.4 Units of analysis

The units of analysis in this thesis are the W Park located between Burkina Faso, Niger and Benin, and the APT between Guinea and Guinea Bissau. Each of them has different history, age, and development. However, aware of these challenges, I chose to compare them for the following reasons: (1) they share their main goal: the protection and durable management of natural resources; (2) the fact that I have first-hand knowledge of both places; (3) the countries involved are both former French colonies and Sub-Saharan; [11] (4) this African sub-region appears to have more intense conflict in connection to nature management (FAO 2003); and finally (5) they share a common aim, but could be considered as almost antipodes in their approach.

[11] The only exception is Guinea Bissau, a former Portuguese colony. However, because in Guinea Bissau the APT project is still in its very early stage, I have chosen not to include it in the analysis.

Performing fieldwork in both PAs gave me the possibility of accessing a number of internal documents and reports, of getting relevant primary source materials and, not least, of gaining a first-hand impression of the area and its population. An external university directed both fieldworks, and my position was that of an independent researcher that could have the trust of the different parties. Therefore, during fieldwork I was able to talk freely with both conservationists and the local population. This gave me the opportunity of getting precious information, difficult to collect otherwise, and to see with my own eyes the problems occurring in the two areas.

The countries hosting the W Park and the APT share a similar history, and consequently have similar characteristics today (chapter three). They are among the poorest countries in the world and their populations live on a subsistence economy that makes them strongly dependent on natural resources (agriculture, fishing, breeding livestock, etc). Access to these resources is hence central for the populations' survival and their standard of living.

The two protected areas, while sharing the same goals and purpose, have different conceptual premises and design: the "conservationist" model in the W Park, and the "community-based" model in the APT. The physical shape of those two protected areas is also the results of their different approaches. The W Park has a compact shape, since it is a unified block (fig.1), while the APT is formed by a number of small PAs, like the islands of an archipelago (fig.2).[12] These differences make the study interesting and at the same time make the comparison challenging. As mentioned in the previous paragraph, to limit pitfalls and to increase construct equivalence, I use Gleditsch's model as a guideline in order to select even elements of comparison.

[12] It has to be noted that the different shape of the parks is not compared. This is because the APT's shape is the outcome of a design process that could have had a different outcome in another area. In other words, with different territorial structures and different actors in the negotiation, the shape of the park would be probably different. Instead what I analyze here is the process behind the decision of implementing a park with a certain shape.

1.2.5 Limits and challenges

This analysis presents several challenges. The first regards the differences between the two protected areas. The two cases have for example different time-spans. While the W Park is an inheritance of the colonial period, the APT is a rather young project with roots in the 1990's. The challenge in this case was two-fold, regarding: a) the different documents produced and their availability and, especially b) the differences in the length of the two projects' experience.

The two protected areas' administration produced a number of field researches and reports. Nevertheless, the W Park, due to its longer existence, provides a larger number of documents. To deal with this challenge, I tried to select corresponding materials from both cases. The documents used for the two case analyses, are mainly reports and studies that have been produced with the scope of assisting the two PAs to formulate or renovate their Management Plan. Furthermore, especially in the case of the APT, I attempted to overcome the occasional lack of information through the use of interviews and fieldwork material. Although these sources were collected within a different research frame they contributed to gaining a better insight into the field.

The different time-span precluded a comparison based on the actual occurrence of conflicts. Through the method of structured, focused comparison I tried to deal with the challenges relating to the different time-span, experiences and outcomes reached by the two protected areas. Time difference is here two-fold: it means historical time since the two PAs are implemented in different decades; but it also regards the longevity of the two projects and the data produced in these years. As mentioned above, the analysis is *focused* in the sense that it deals with certain specific aspects of a topic. This paper deals specifically with structural characteristics of the two protected areas. In other words, I directed my attention towards the principles and theory that lie behind the creation and management of the two PAs, as well as towards their process of implementation. Problems related to the creation and implementation of the two protected areas refers to their design and the early stage of their implementation. This means that this study spotlights the early existence of the W Park and APT, focusing

on the potential conflicts that the design itself generates. In this way I sought to reduce the problem of time-span difference at least in its second aspect (different length of the two projects).

Another important challenge in this study was to meet scientific criteria related to the case study approach, such as demands of reliability and validity. Reliability has to do with the quality of measurement, and specifically refers to the extent to which the same study conducted by a different researcher at another point in time, will achieve the same results (Yin 1994). Reliability is always a problem in qualitative research, and this thesis is not an exception, as how the actors perceive events can change with time.

Validity refers to the relevance of the data in terms of answering the research question. In doing research we need to seek: internal validity, which refers to the causal relationship of variables; external validity, which deals with the problem of generalising the findings to other experiences; and construct validity, concerned with the operational measures underlying the study (Yin 1994:33). In doing case studies there is the danger of looking for the answers one wants to find, leaving out alternative answers in order to strengthen the hypothesis. In this thesis I have tried to search in the data for clear links between conflicts and PAs implementation, trying to avoid partial deductions. Furthermore, I sought alternative links to those clashes, with the ultimate goal of better understanding the situation in the areas. In this way I also aimed to enhance internal validity, as according to Yin, looking for alternative explanations can serve this purpose (1994:ix).

Another common and legitimate critique is that case studies hold low external validity, or low scientific generalization value (Yin 1994). Nevertheless, case studies can contribute to theoretical propositions as they enable the combining of different sources (reports, interviews, official documents, etc.), in order to investigate one particular case and elucidate relevant aspects of the research question (Ibid.). The differentiation of sources has also been useful to cross check data; nevertheless, it has been necessary

and important to remain conscious of the different origins and purposes of the documents consulted and of the data collected. Furthermore, the case study method was functional in this thesis because it focuses on what can be learned from a single case (Stake 1995). Accordingly, the results of this specific case study can be useful material for further development and rearrangement of the theories upon which the conservationist and the community-based approaches are based.

Finally, the concepts to operationalise in a piece of research are numerous and composite. For example, what we consider to be our unit of analysis? How to individuate conflicts in the area? What do we consider to be a conflict? The theoretical framework, the method chosen, the model of environmental conflict escalation and the multiple sources are the tools I employed to improve construct validity.

1.2.6 Data collection

The data used in this study are mainly of two kinds:

a) Documents collected during fieldwork, including secondary documents held at the projects' offices, and primary data collected through semi-structured interviews. These interviews mostly involved the local population and local authorities, but also project workers and expatriates; the interviews were also useful to substantiate findings and cross check information. These documents were not collected specifically for this research.
b) Other materials, including reports produced by the two projects, mostly in French. I accessed these documents at the projects' offices and through the University of L'Aquila, Italy.

Other materials were collected at the University of Oslo and from Internet sources.[13]

The vastness of the territories that are the subject of this analysis gives countless possible angles of research. However, my fieldwork in the areas made me able only to

[13] Most of the documents are publicly available, and the private material, results of interviews and field inquiries, can be requested from the author.

look at some of them and only scratch the surface of a very complex process. Nevertheless, I believe that through the material collected in the field and the application of the method exposed above, I was able to collect and gather the information that contributes to giving a new insight into the influence of protected areas design and implementation over the degree of conflict in the areas of interest.

1.3. Structure of the thesis

The next chapter will introduce the background theories contributing to this analysis and will outline how central terms and concepts are understood.

Chapter three will give an overview on the countries hosting the PAs: Guinea, Burkina Faso, Niger and Benin; giving the possibility for better understanding the stakeholders' background.

Chapter four will be an analysis of the traditional model, applied in the W Park, and of the innovative model, employed in the APT Guinea (-Guinea Bissau), in relation to the environmental conflict model (Diehl & Gleditsch 2001).

In chapter five, the findings arising from the analysis chapters will be gathered in order to answer the research question. This chapter will be also dedicated to commenting on the findings, and to discussing the implications for environmental conservation.

2.Theoretical Framework

There are different kinds of protected areas: national parks, nature reserves, biosphere reserves, etc. The choice of terminology depends on the conceptions behind the protected area management, the level of protection of wilderness, the environmental status or sometimes even international trends. The most followed categorization system was created by IUCN, which gives standards to categorize protected areas according to their management objectives. The categories range from Strict Nature Reserve (I) to Managed Resource Protected Area (VI) (IUCN 1994; Phillips 2004). However, as pointed out by Kamugisha et al., all of them have as principal goal "the protection of natural resources within their boundary"(1997). It is history, tradition, and ideology that influence the way this goal is pursued (Ibid.).

The term "protected area" is used here to designate a portion of land dedicated to the preservation of nature and managed through legal or other effective means. This definition of PAs is extensive, and includes both the conservationist and the community-based approaches.
In the following section the background of both the conservationist and the community-based approaches will be outlined in order to understand the logic behind their policies.

2.1 The logic of the fortress

As mentioned previously, the conservationist model has its roots in colonial times. For the colonial elites, the preservation of wildlife was a sign of a good advanced society (Calandra 1999:3), which encompassed a rational use of the environment. This idea of rationality contained in its dichotomy the notion of irrationality. Accordingly, the Europeans generally perceived the African traditional use of land as irrational and consequently bad. Colonialists considered the local knowledge to be archaic and silly; therefore, the sub-Saharans people were not seen as having the skills to properly manage nature (Kalahora and Savoye 1986 in Calandra 1999:3). This belief allowed

Europeans to impose "their image of Africa upon the reality of the African landscape" (Grove and Anderson 1987:4), making Africa an ideal Eden, a "green museum" (Calandra 1999:11). In this way colonialists enjoyed international prestige through the creation of African parks (Grove and Anderson 1987; Calandra 1999). African lands were also exploited through the creation of farms, mines, etc. Nevertheless, large portion of territory were given over to protection, which also had the secondary aim of creating wood reserves for possible further exploitation (Calandra 1999).

To visibly delimitate the parks' boundaries, the French colonialists employed the common practice of using natural boundaries, for example rivers (Calandra 1999). Consequently, the boundaries of many protected areas rooted in the colonial period are often the outcome of logistical needs instead of wildlife planning. The W Park also followed this logic: the river Niger in the north carries out this function. Therefore, the shape of these protected areas is the result of what was practical for European users, who saw them as a reserve for potential further exploitations (Calandra 1999; Child 2004). The creation of protected areas by the French colonialist was three-fold. It included an *ideological* preservation of the wilderness, an *economic* use of the colonies' resources (wood, game, taxation, etc.) and a *political* control over the population, restricting the freedom of movement (particularly for nomads) and settlement (Calandra 1999 and 2001). Finally, many of these reserves were created assuming that the areas were uninhabited, not exploited or used (Himmelfarb 2006; Boluvi 2005).

Behind the conservationist approach there is the idea that it is possible to abstract a portion of space from the surrounding social context (Kothari, Lockwood et al. 2006). Consequently its physical shape resembles a fortress, comparable to a "medieval citadel" that had to be defended from external assaults (Turco 2005:13; Himmelfarb 2006). Exceptions to this lack of social context are the presence of ecologists to protect and research nature, or the monitored presence of humans enjoying the wilderness. This kind of PA is then composed of: a core area with no or limited access of authorized individuals; a buffer zone where relations between the natural environment

and people are allowed within certain limitations; and finally, a transitional area, which is understood as the area of influence of the park (fig.1).[14]

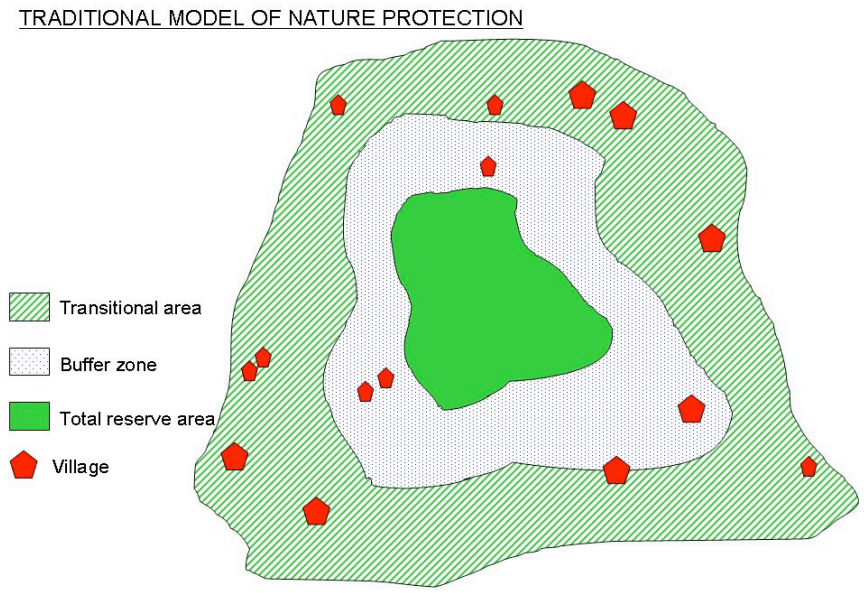


Fig. 1 The conservationist model of nature protection.

2.2 The logic of the community-based model

The community-based model has its roots in the 1990s, and it is the result of a paradigm shift towards a more participatory approach. Various forms of cooperation with the local populations have been implemented, for instance community development (Hannah 1992), the community approach (Kamugisha, Stahl et al. 1997), integrated conservation-development projects (Wells, Hannah et al. 1992), etc. The specific approach described here emerged from the human and political geography disciplines. This method of nature management takes into consideration a wide number of factors connected to the population's background. The most relevant will be recalled in the following part in order to facilitate the understanding of the setting and the procedure used to create a community-based protected area based on territorial structures. These elements are:

1. the dichotomy between legal and legitimate power;

[14] Fig. 1 is an elaboration of the same model from Arbore, C., Leone G., et al. (2005) and Vinciguerra, V. (2005).

2. the choice of interlocutors;
3. the knowledge of territorial structures and
4. of local competences.

2.2.1 The dichotomy between legality and legitimacy

Burkina Faso, Niger, Benin and Guinea were all part of the French colonial empire (chapter three). The colonial power imported a European political, economic and administrative system into the African continent. There were limited investigations of existing local organization and power systems, and limited efforts to adapt the colonial needs to them. These efforts were limited also because the French approach towards the colonies focused on the cultural and administrative assimilation through centralization (Blanton et al. 2001 in Bøås & Dokken 2002:122). Centralization meant the replacement of traditional authorities by representatives of colonial power and the replacement of traditional institutions by bureaucratic institutions belonging to the colonial power (Bøås & Dokken 2002:122; Birgegård 1993:30). As a consequence, the colonial system weakened and in some cases damaged the local institutions. With independence, new elites replaced the colonialist and overruled the groups that were not assimilated under the colonial time (Bøås & Dokken 2002:123). This process created a dichotomy in the administration system in many African countries, which started with the colonies but continued after the independence (Turco 2002a).

Inevitably the organization of power worked (and works), on two levels: the *legal* one created by the colonialist and embraced by the African elites after independence; and a *legitimate* one, operating through traditional power structures (Turco 2002a; 2002b; 2004). These traditional power systems still exist on different levels in West African countries, sometimes they overlap and they have diverse degrees of freedom (Højbjerg 2007).

For example in Guinea, traditional chiefs have to act carefully, since the traditional power system has been strongly persecuted, especially by the post-colonial state and

the first leader after independency: Sekou Touré (chapter three). In contrast, in the other countries there is a degree of tolerance between the legal and legitimate powers, which sometimes permits collaboration. However, the fact that in Guinea the traditional power is hidden does not mean that it does not exist. For instance, in most of the villages I visited, the use of natural resources is determined by the decision of the chief responsible for land, and has nothing to do with the state administration system and even less with the concept of private property.[15] This chief is the person in charge of assigning portions of land to the villagers or to seasonal workers for exploitation. He does that, following established routines. For instance in some of the areas, when a person seeks work in a village where he does not belong, he need to find an autochthon who can vouch for him.

To implement a PA with the community-based approach based on territorial structures it is necessary to be aware of, to recognize and master the legitimate system. Accordingly, contacts with both the legal and the legitimate systems are required. This is because issues discussed only with the state administration can lead to decisions that might not be recognized as legitimate by the population, and consequently not be respected and become a source of conflicts (Child 2004; Birgergård 1993). Conversely, as will be more extensively discussed later, this approach can create problems connected to the autochthony issue. As observed by Geschiere in his study on protected areas in Cameroon, "greater autonomy for the local communities might turn into questions of belonging"; it can be difficult to understand or to agree on who is entitled to be part of decision making processes and of resource sharing, and who is not (2004:238). This is because local communities are often characterized by what Geschiere calls "fission and fusion", which means that groups are united against outsiders, but can come apart when they share resources between themselves (2004:240). Issues of autochthony can thus become central when implementing PAs, as control over land, management of natural resources and distribution of revenues are discussed.

15 For the results of this field work in the APT see for example: Arbore, C., Leone G., et al. (2005). For the W Park please see: Camara, L. and Vallodoro A. (2003), and Camara, L. (2002).

2.2.2 Choice of interlocutors

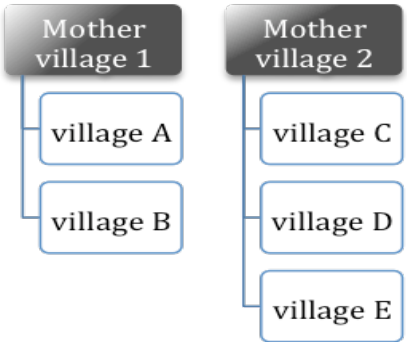
The issue introduced above, of legitimacy and legality is strictly connected to the choice of the interlocutors. Interlocutor is here understood as a person having a direct interest in the negotiations related to the PA and who is representative of a portion of population. In other words, the interlocutor is a stakeholder that can legitimately represent also the interests of other stakeholders.

According to the method used in the APT, conservationists need to have a dialogue with actors who are recognized as representative of the population's interests in order to protect nature with the support and agreement of the local population (Arbore, Leone et al. 2005; Turco 2005). Therefore, interlocutors should be sought both within the state administration (ministers, bureaucrats, etc.), and within the traditional power system (the village chief, the land chief etc.). In Guinea interlocutors were for example, (i) village chiefs, heads of associations where women, peasants, young people, etc. represent the different users, and (ii) representatives of the administration, such as the chief of the Community of Rural Development (CRD), representatives from the Ministry of Water and Forestry, etc.[16] In this way the different stakeholders have their interests represented through spokespersons who are commonly and widely accepted (Arbore, Leone et al. 2005; Turco 2005). However, as the analysis in the next chapters will highlight, the choice of interlocutors can be highly problematic and even be a source of conflict instead of a source of large and pacific representation. For example, it can be difficult to understand African rural society, and to recognize situations where stakeholders have the intention of excluding other stakeholders. Furthermore, it can be difficult to draw a line regarding who belongs to a certain area and who does not. For example, it is difficult to find representation for people such as the nomads or elites, who emigrate but still maintain strong ties with their village of origin. Additionally, it might be questioned whether they should be represented at all, since their relations to the village are unclear (chapters four and five).

[16] The administrative organization in Guinea is: State, CRD, District, Sector, and Village.

2.2.3 Territorial Structures

In order to choose the right interlocutors, a deep knowledge of territorial structures is considered essential.[17] As with the legality/legitimacy dichotomy, the territorial structures in Africa are also overlapping systems. The state administrates the territory with divisions such as regions, provinces, and municipalities. However, the African population has already transformed the space into territory with specific administrative structures, which in most cases survived the acculturation of the colonial period. This means for example, that the administration of land is done through a hierarchy where newer villages are dependent on the older ones (mother village):



In most of the villages visited, if a family wants to periodically camp close to their fields, an authorization from the village chief is needed. An additional authorization will be required if the fields are located within the jurisdiction of another village. Additionally, they need the approval of the mother village (the first settlement in the area), which has a say in issues regarding the dependent villages. This example shows that in order to discuss the future of a specific portion of land, park managers need to contact the state administrators and the populations closest to the area but are also likely to have to negotiate with the leaders of the mother village(s).[18]

The following diagram shows the complexity of the overlapping territorial structures in a territory. It has to be noted that each corner of the diagram should be understood

[17] See paragraph 1.2.1 of this thesis for a brief introduction to the term.
[18] The different villages together create a "village network"; classified into three main kinds: *classic* network, *eco-functional* network and *blur* network. The focus for the creation of protected areas is given mainly to the second type, where relations in the village network are constructed around a natural resource. For an extended explanation on "territorial structures" and "village networks" please see: Turco, A. (2005).

as plural, since there might be more than one mother village, village, state administration, and organization having jurisdiction over the land where the PA lies or is intended to lie:

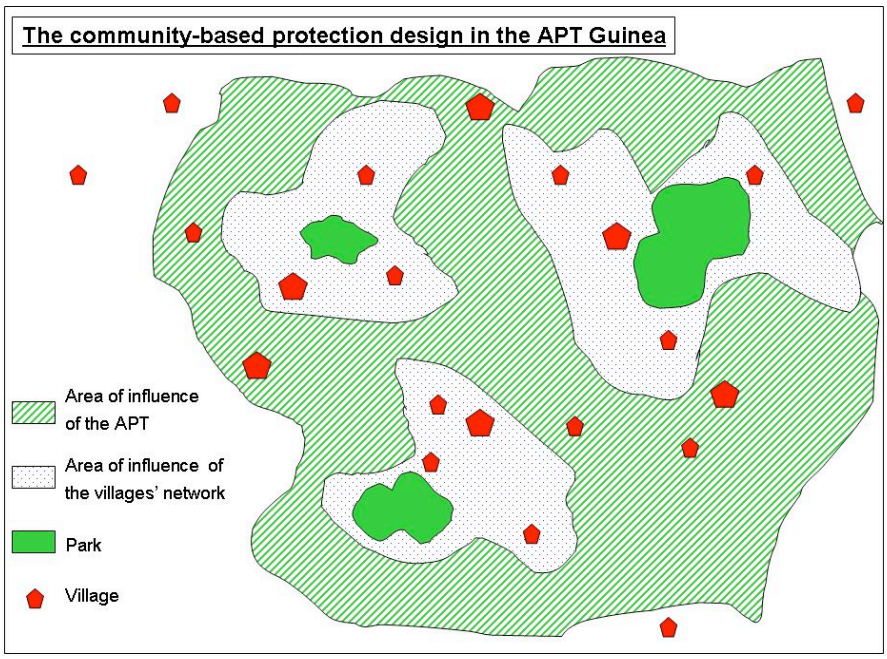
Issues that are not discussed with the mother village might be considered illegitimate by part of the population, which can thus oppose the actions of the conservationists. As shown, the situation can be more complicated when large portions of forests are under the control of different state administrators, a number of villages and often more than one mother village. According to the community-based approach applied in Guinea, all these territorial structures have to be identified and taken into consideration in the negotiation process in order to create a legitimate protected area.

2.2.4 Local competence

The last significant aspect to take into consideration in the community-based approach is the local traditional competence. As pointed out by different authors (Fairhead and Leach 1996; Kamugisha, Stahl et al. 1997; Fairhead and Leach 1998; Calandra 2001; Borrini-Feyerabend 2002; Turco 2002a), Africans have developed strategies to perpetuate wildlife and guarantee themselves reserves for further exploitation. According to the approach applied in Guinea, it is fundamental to bring together information gathered from local competence, with the scientific knowledge normally used in wildlife protection. For instance, part of the fieldwork carried out in Guinea focused on the traditional classifications of soils and agricultural techniques. This information was useful to understand the strategies villagers used to maintain the productivity of the fields. This enabled conservationists to protect wildlife through re-

enforcing local competences that were already widely acknowledged, instead of introducing from scratch a scientific knowledge often alien to villagers.

The protected area implemented in Guinea is not a unique block like the W Park. Instead, it consists of a number of protection "islands", an archipelago of protected areas called Nature Protection Zones (ZMD), or Community Conservation Zones (ZCC), depending on their status (paragraph 4.1.2). The APT is the area of interest where protectionists have applied the community-based approach described above. Fieldwork was carried out within the APT to individuate territorial strictures, choose interlocutors and collect information on local competences. After the individuation of pivotal areas, protectionists negotiated with villages' representatives and stakeholders. This process, repeated a number of times within the APT, resulted into the implementation of various protected areas, which gives the PA the shape of an archipelago (fig.2).[19] Nonetheless, the shape and the status of community-based PAs founded on territorial structures can vary according to field characteristics; negotiations with different interlocutors; and obviously the territorial structures. Therefore, the PA can assume different forms (also a unique block) and status, in accordance to local needs.



[19] Fig. 2 is an elaboration of a similar model from Arbore, C., Leone G., et al. (2005).

Fig. 2 An example of community-based protection model

2.3 Summary

The approaches to create and implement a protected area are composite and reflect a number of historical, cultural and scientific criteria. The two PAs analyzed in this thesis follow two distinct approaches. The W Park, rooted in the colonial period, followed an ideological preservation of wilderness, the economic interests over natural resources and political aim of control over the population. The area was addressed to protection with a top-down approach, as if it were not inhabited or exploited.

In the APT Guinea the implementation of PAs took into consideration a number of peculiarities of West Sub-Saharan society. These are: the dichotomy between legal and legitimate power, the choice of interlocutors, the knowledge of territorial structures and of local competence. In this way, conservationists aimed to protect nature with the consent and conciliation of the local communities.

Park managers, while sharing the same goal of nature preservation, implemented PAs through two different approaches. To better understand the peculiarities of these approaches and of the societies where they operate, an introduction to the host countries is needed. The following chapter tries to serve this purpose. The brief outline of the physical geography and the history of Guinea, Burkina Faso, Niger and Benin, that will follow aim to frame this study and introduce the areas where the PAs analyzed are located.

3. Guinea and the “W” countries

3.1 Introduction

To create and implement a protected area it is necessary to understand the territory, from its physical shape to its social configuration. Accordingly, there is a large amount of information that it is essential to acquire. This is particularly the case if the design method requires deep knowledge of the territorial structures as in the APT. Therefore, the conservationists need to collect a great deal of variegate and useful information. This chapter gathers some of this essential information, and is two-fold because it (i) firstly aims to outline changes in social structures from the pre-colonial era to the contemporary periods; and (ii) secondly, it aims to sketch some of the ties between these changes and the conservation of the nature.

3.2 A postcard from Sub-Saharan Africa

Those that have travelled to the area, keep a vivid memory of the long flight over the Sahara desert. This ocean of sand seems to never end, nevertheless, at a certain moment the pure sand starts to be interrupted by bushes and transforms into savannah. As the journey continues, the numerous bushes are replaced by trees and scattered forest. The traveller starts to be able to distinguish settlements and even cities. Then, according to how far south the flight is heading, the yellow-red pattern of sand transforms more and more into scattered green and finally develop into grassland and forest. That is how it is flying from North Africa to the Guinean Gulf (fig3).

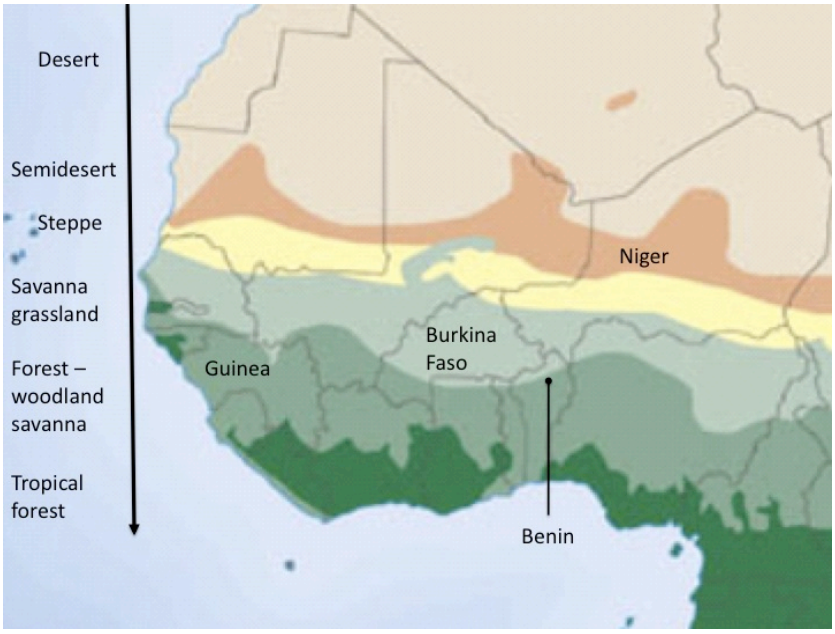


Fig. 3 Sub-Saharan vegetation pattern

In between we find the countries subject of this analysis. From Niger, formed mostly by the desert and never reaching the purely green patterns; to Benin, which lies in the transition from the scattered forest to a flourishing green landscape. Niger has indeed a subtropical climate, very hot and dry, with a large desert area (Donaint and Lancrenon 1984; Zamponi 1994), which leave space only for a difficult agricultural exploitation. While Benin, a long stripe of land, has a hot and humid climate with two rainy seasons, that make the area more verdant, especially approaching the south (Allen, Radu et al. 1989).

Burkina Faso and Guinea are characterized by the same dissymmetry. The former has a primarily tropical climate with one rainy season and one dry season and consists of extensive plains, low hills, high savannas and desert. The latter is a humid and tropical country where some of West Africa's principal rivers (Gambia, Niger and Senegal), rise, making Guinea's land fertile. With different strength (very high in Niger and quite low in Guinea), blows the Harmattan. A dry and dusty wind that between November and March covers everything with fine sand particles picked up in the desert (Suret-Canale 1970); covering the postcard from Sub-Saharan Africa with dominating yellows and reds.

3.3 Stepping from the pre-colonial period to the colonial era

The history of the area and its social organization is so rich that is, to my point of view, reductive to call it *pre-colonial*. However, as the length of this paper does not allow a complete overview of how society developed before the arrival of the colonialist, I decided to simplify this part and reduce it to information relevant to answering the research question.

Guinea belonged partly to medieval Ghana (later the Mali Empire), and partly to the Fulani feudal state established in the Fouta Djallon region (O'Toole 2005). Whereas, Burkina Faso was dominated by the Mossi's empire and was an important economical area (Zahan 1971). Traces of human presence in Niger go back to about 600,000 years ago, and the area was considered an important economic crossroads (Zamponi 1994). During recent centuries, the nomadic Tuareg who live mostly in the desert area of the country, formed large confederations and clashed with the Fulani Empire. Thus, the country was characterized by a variegated organizational system. Finally, before the arrival of the colonial powers, Benin was a great medieval African kingdom called Dahomey, renowned for its great culture, history and traditions.

Under the power of these kingdoms and empires the population developed their own territorial structures, with social hierarchies and organization, problem-solving systems, and techniques of nature preservation. European exploration of the area began in the mid-15th century when the French, British, and Portuguese competed for slaves and for agricultural products (Collins and Burns 2007). In this phase, African organization of territory and society met the colonial administration system. At the end of the 19th century, the French claimed the area as part of French West Africa (O'Toole 2005), and eventually those countries became part of the French Colonial Empire (fig. 4).

Fig. 4 French Colonial Empire

In this phase colonial laws and administrative systems were applied in the area, and the different territorial structures started to overlap, as a result of different logics (colonial/local) operating in the area. As outlined (chapter 2), the colonial power imported a new political, economical and administrative system into the African continent. Knowledge of the existing local power systems was limited, as were the efforts to adapt colonial needs to them. The French approach was to address cultural and administrative assimilation through centralization (Blanton et al. 2001 in Bøås & Dokken 2002:122). Thus, traditional authorities and traditional institutions were replaced by representatives and by bureaucratic institutions belonging to the colonial power (Bøås & Dokken 2002:122). Therefore, as stated earlier, the colonial system weakened and even damaged some of the local institutions.

This replacement included the introduction of a new concept of nature preservation. As pointed out by Himmerlfarb, the colonialist did not consider local users as historic managers of the natural resources. Instead they perceived the local population as threats to the unspoilt wilderness (2006). Furthermore, Europeans thought that the African traditional use of land was archaic and irrational. Colonialist did not recognise in the Sub-Saharans the basic skills to properly manage nature (Calandra 1999:3), and implemented their own way of protecting nature, through fences (Himmerlfarb 2006). Furthermore, the actions of the colonialists were in many cases inspired by 'misreading' the wilderness, as what they often perceived as untouched nature, were in

reality highly anthropogenic areas (Fairhead and Leach 1996). Additionally, the creation of national parks (the reclassification of African land as colonial land), served also to symbolically legitimize the shift of control over land and resources, which took place under the colonial conservation law (Himmerlfarb 2006). Thus, stepping from a pre-colonial period into the colonial era introduced the two main consequences, which concern this study. First, the organization of society developed a dichotomy of legal/legitimate territorial structures. Second, the colonialists applied their own interpretation, exploitation and organization to the territory, with little or no consideration of the existing management systems.

3.4 Next stop: contemporary francophone West Africa

Burkina Faso, Niger and Benin gained independence in 1960, while Guinea achieved its troubled autonomy in 1958 (Collins and Burns 2007), when the union leader Sékou Touré made Guinea become the only colony to vote against the constitution of the French Community, opting for complete independence (Suret-Canale 1970; O'Toole 2005; Schmidt 2007). As a result France ended relations, withdrawing financial as well as technical aid. In the following period Guinea became a one-party Marxist-socialist republic. A political choice followed also in Benin by Kérékou, who first professed strict Marxist-Leninist principles (Allen, Radu et al. 1989), then shifted to a parliamentary capitalist system (Ibid.). In Guinea, Touré fought any kind of traditional power or parallel organization to his regime (Adi and Sherwood 2003; Højbjerg 2007), with some exception for the traditional power of his own people. According to Højbjerg, this demystification program was part of a political plan to modify the attitude of the population in order to build a new, unified and modern nation-state (2007:7). The military regimes' leaders of the newborn states of Burkina Faso, Niger and Benin showed similar attitudes, with different degrees of strength and few exceptions. Indeed, the elites of those countries identified the relationship between nationalism and traditions as reciprocally exclusive (Ibid:53). Accordingly, in order to ensure control, governments often had the direct purpose of undermining traditional systems. As stated by Birgegård, efforts to transfer power were made by introducing

competing powers such as political organizations and bureaucratic structures, down to the village system (1993:30; Bøås & Dokken 2002:122). In most cases this attitude caused traditional leaders to act carefully, hiding from the institutions. During my fieldwork in Guinea for example, it was often difficult to distinguish who the traditional chiefs were. Sometimes that was difficult because they were themselves skeptical about talking openly. Other times, representatives of the administration tried to portray themselves as the only authority in the area for obvious reasons of power control (Arbore, Leone et al. 2005). This situation complicates the effort of decoding overlapping territorial structures inherited from the traditional culture, the colonial regimes and the following new independent states.

In the 1990s all four of the countries had their first democratic elections. Nonetheless the way to fully-functioning democracies is still seen as long, as demonstrated for instance in Guinea in January 2007, when more than hundred people died when demanding president Conté to introduce a more transparent government (Vinciguerra 2007). All four countries perform quite poorly economically and they are all aid recipients (Collins and Burns 2007). They all rank poorly in the Human Development Index (HDI), with Guinea at position number 160, Benin 163, then Niger number 174, and finally Burkina Faso, which scores 176 out of 177 countries.[20] Furthermore, a rapidly growing population and the resultant competition for natural resources, make it difficult for a great deal of the population to fulfil basic needs. Competition over natural resources has also escalated into conflict in recent years for example in Niger (Moore & SANREM 2005). Accordingly, environmental policy is a delicate topic, since it involves also the risk of fuelling existing conflicts.

The management of natural resources did not undergo a great policy shift after gaining independence from the colonial power. The new independent states followed the path initiated by the colonial protectionists. Himmelfarb points out that early projects of nature conservation have strongly influenced today's practices (2006). He continues by elucidating that nature protection models based on the protectionist model, which

[20] Human Development Index 2007, available at http://hdr.undp.org/en/statistics/ last access on 31.03.2008.

can also include forced displacement, are abundantly applied despite the introduction of other models, such as for instance community based approaches (Ibid.). Protectionist models that rely on the idea of fencing nature off from human activities are still largely implemented. Nevertheless, Beinart highlights how lately, efforts have been made in order to include livestock breeders and peasants into protected areas instead of fully excluding them. However, continues Beinart, "access remains rather restricted and conflicts over resources are by no means resolved" yet (Beinart in Grove and Anderson 1987:17). What is sometimes different between the former colonies and the contemporary states is the recurrent lack of the latters' resources to invest in making those parks work. For instance, it is not always possible for countries such as Guinea, Burkina Faso, Niger and Benin, to invest large amount of economic resources into effectively controlling protected areas' borders. However, despite this, most of the expenditure is devoted to paramilitary guards, law enforcement and public relations, with none or little investment towards the local population. This lack of human and economic resources makes these countries often dependent on external donors for the implementation of environmental projects (Himmelfarb 2006). And often the principles and models on which these protected areas are based, are chosen by the donors. As a consequence the multitude of logics applied by the different actors to those African countries is growing. It is therefore essential to evaluate which methods of design and implementation are more compatible with the reality of those countries. The next chapter attempts to do so, by analysing how the design and management of the W Park and the APT influence conflict escalation.

4. Observing methods of nature protection

4.1 Introduction

Nature protection is a growing phenomenon, therefore an understanding of its mechanisms and outcomes is needed to avoid pitfalls and improve the effects it has on nature and society (Kothari, Lockwood et al. 2006; FAO 2003). This chapter shows an effort in this direction; indeed, the W Park and the APT are analyzed to understand the strengths and weakness of the two approaches, especially in connection to conflict escalation. Accordingly, I will give a brief account of the two PAs' structures, and I will investigate both the W Park and the APT in the light of Gleditsch's conflict escalation model. As the analysis will illustrate in the next paragraphs, both methods have been shown to contain some pitfalls and concerns related to their implementation. Some of them, briefly anticipated in chapter one, can be recapped thus: in the W Park problems seem to be mainly connected to the enforced displacement of the local population; and to clashes between two logics (legality/legitimacy), each transforming space into territory through different strategies, those of the conservationists and those of the local population (Turco 2002b). In the APT challenges are related to the difficulties of identifying correctly territorial structures and the interlocutors, with consequent risk of fallacy and feeling of inequity (Arbore, Leone et al. 2005).

4.1.1 Introduction to the W Park

The W Park was initially formed by scattered hunting areas, created for the delight of the colonialist (Calandra 1999). The colonial authorities took control over the abundant wildlife, and considered the area as virtually uninhabited (Himmelfarb 2006; Boluvi, 2005). In 1937 the area officially became the "W National Park" reserve, and in the following years the Park went through a number of reinforcing procedures and classifications. As of 1952-53, when under the name of "National Forest and Total Fauna Reserve of Niger River W", the park covered about 330,000 hectares. The area was not unpopulated as the colonialists previously assumed, on the contrary, evidence showed that humans had inhabited the area for thousands of years (Lamarque in

Clerici, Bodini, et. al., 2007:30). A number of villages needed to be displaced and Moli, the last one, was removed as late as 1954 (D. Dulieu in Boluvi, 2005). A buffer zone was introduced in 1984, leading to the incorporation of a greater number of villages within the W Park area of influence. The whole complex was then extended to 1,033,920 hectares; one of the largest transfrontier parks in West Africa designed "to control the degradation of natural resources, ensure sustainability and safeguard biodiversity" (Clerici, Bodini, et. al., 2007:30; Sherbinin & Freudenberger, 1998).

Recently, Burkina Faso, Niger and Benin joined their effort to manage the area, supported by the European Union. As a result, the W Park/ECOPAS Program was launched in 2001 to manage a complex called W-Arli-Pendjari ecological complex (WAP), which includes the W Park along with a number of other contiguous parks and reserves, fig. 5.[21]

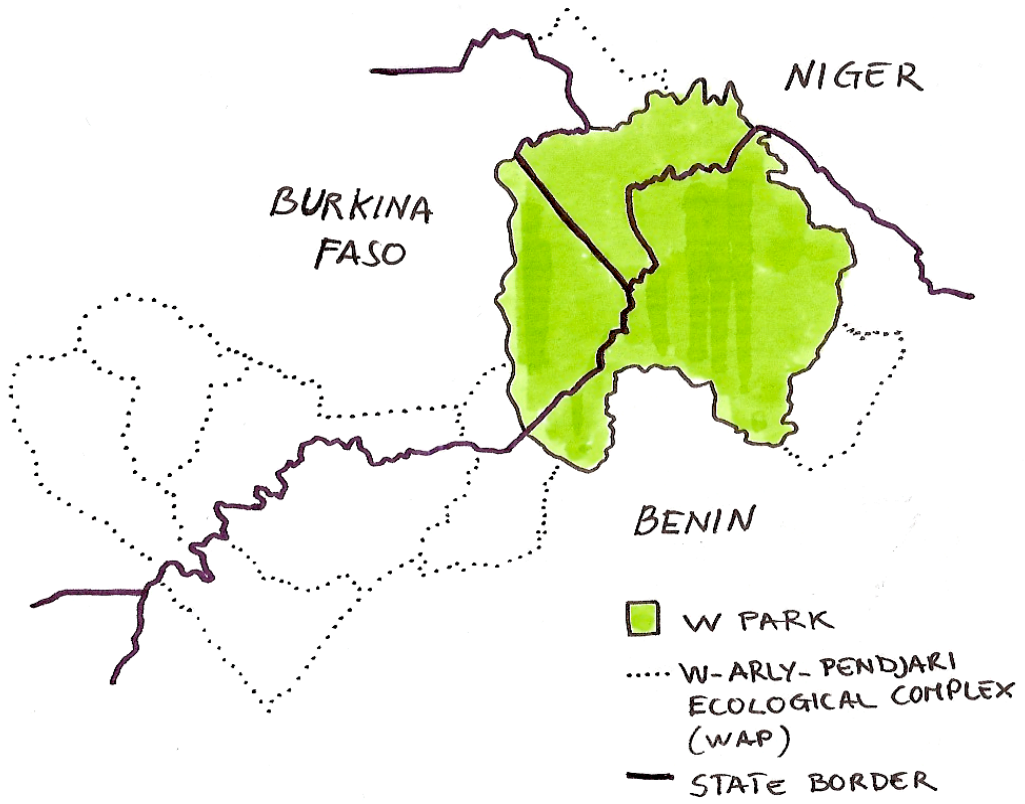


Fig. 5 W Park and WAP location between Burkina Faso, Niger and Benin.

[21] Fig. 5 is an elaboration of a similar figure of figures taken from: www.parks.it and Journal for Nature, Conservation Volume 15, Issue 1, 24 January 2007, p.29. For interactive maps on the W area see: http://www.multimap-parcw.org/map.swf

4.1.2 Introduction to the APT

In the last decade the West African countries developed a number of partnership initiatives for the environment. One of those aimed to monitor desertification, and in the year 2000 a regional program called AGIR was founded.[22] Four are the four sub-programs coordinated by AGIR (Fig. 6):[23]

- APT between Guinea and Guinea-Bissau (B1);
- APT between Guinea and Mali (B2);
- National Park of Niokolo Koba and National Park of Badiar and their peripheries (B3), between Senegal and Guinea;
- National Park of Haut Niger and its periphery in Guinea (B4).

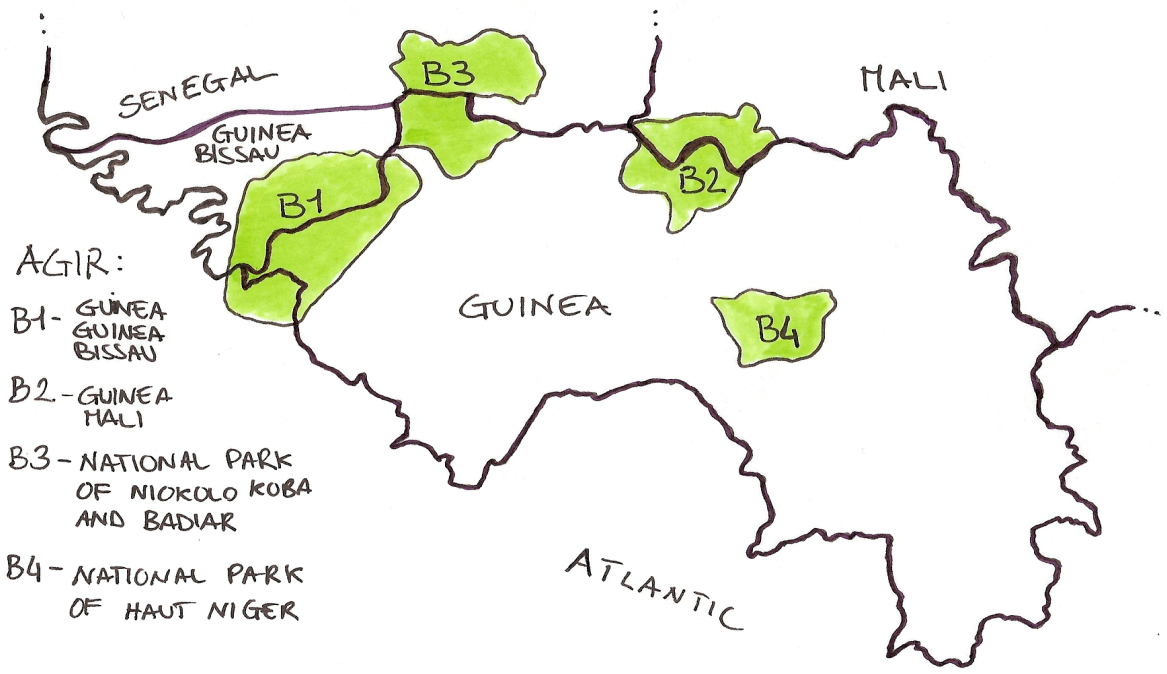


Fig. 6 AGIR's sub-programs

The sub-programs are quite different from each other; they have different histories, shapes and status as they were created with diverse goals under different previous managements. Nonetheless, the general approach introduced by the AGIR program focuses on the active participation of the local population and local communities as

[22] AGIR inherited the remit of another project called PRABV (*Programme Régional d'Aménagement des Bassins Versants),* which from 1989 had the goals of controlling the status of the Niger and Gambia rivers, of improving the management of the natural resources as well as the local population's living conditions (Ghiurghi & Pellegrini 2005).

[23] Fig. 6 a rielaboration of a picture from: Vinciguerra, V. (2005).

well as the state administration (Ghiurghi & Pellegrini 2005). More specifically, the strategies applied by the program are: the preservation of the natural resources through direct actions by the local communities; the search for balance between conservation and development; the collaboration between the different stakeholders and territorial structures; the progressive implementation and acceptance of the protected areas; and finally the flexibility to change the strategies if needed (Bonnet 2000:43).

The sub-program analyzed in this thesis is the APT B1 within Guinea and Guinea Bissau, which covers an area of 17000 Km². However, as earlier stated, I addressed my investigation to AGIR's actions in Guinea and not in Guinea Bissau, since in the latter country the program is in its early stages (Arbore and Vinciguerra 2005), (fig. 7).[24]

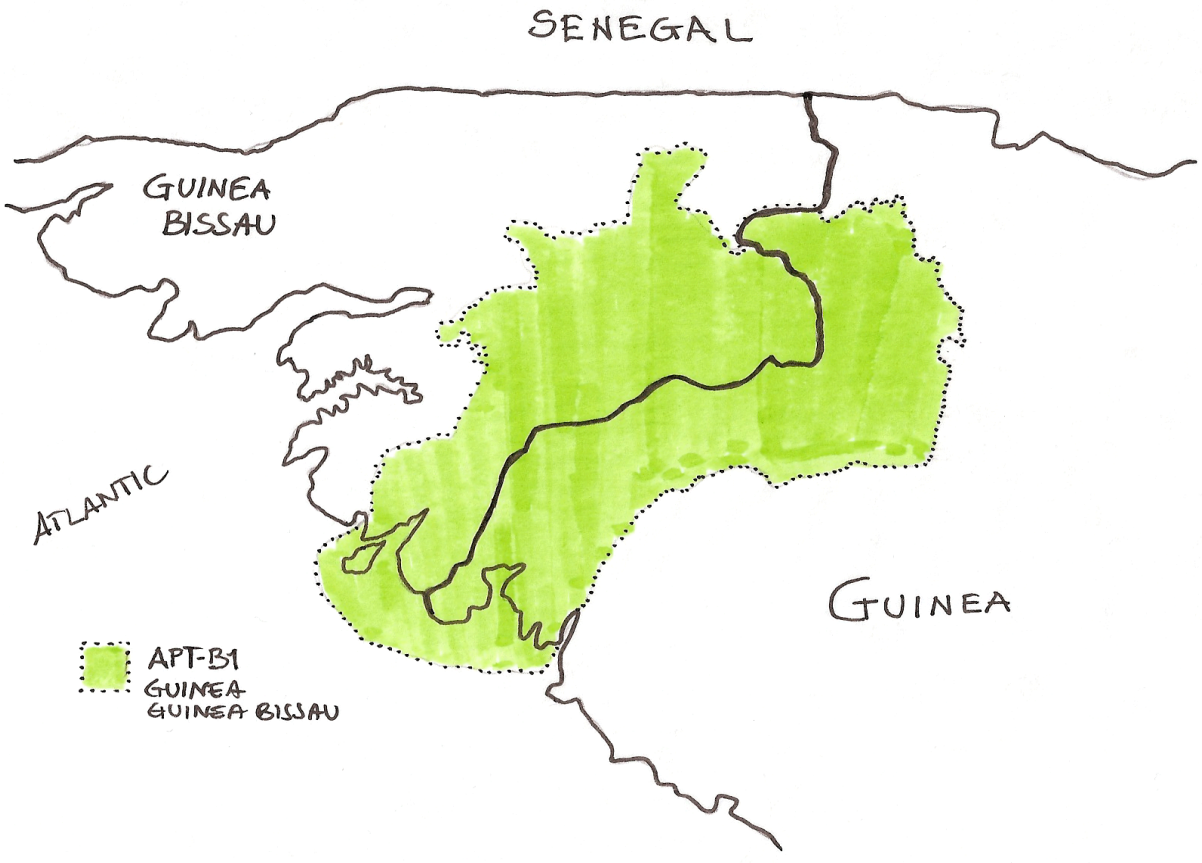


Fig. 7 The APT B1 Guinea-Guinea Bissau

[24] Fig. 7 is an elaboration of a figure from: Arbore, C., Leone G., et al. (2005).

AGIR's approach to conservation in Guinea is considerably different from the one adopted for the creation of the W Park. In Guinea the shape and status of the PA is the outcome of integration and negotiations between social, political and ecological contexts (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005). To create the PA, the program AGIR took into consideration traditional resources, the local management as well as the state administration's requirements (Ibid.). Nevertheless, it should be noted that the openness of the program towards collaboration with the local communities does not reflect the general conditions in the country. Indeed, Guinea despite these recent efforts is still an authoritarian regime, scoring 157 out of 167 in the democracy index.[25]

The APT Guinea is a large portion of land given over to conservation studies. Within this area one or more PAs are individuated. Accordingly, the APT Guinea coincides with AGIR's area of influence but not with a specific protected area. Indeed, the APT Guinea encloses several PAs: 46 different entities of nature preservation creating a network of PAs with different status, sizes and shapes, in accordance to the specific needs of the local communities (fig. 8).[26] The program grouped all these multiple entities into two main types: four Nature Protection Zones (ZMD), and forty-two Community Conservation Zones (ZCC).[27] The differences between these types will be explained below.

[25] The Economist, available at: http://www.economist.com/media/pdf/DEMOCRACY_INDEX_2007_v3.pdf last access 3.12.2007

[26] Fig. 8 is a rielaboration based on CARTOLAB's (*laboratoire de cartographie de l'Université de L'Aquila, Italie*) map in: Ghiurghi, A. and Pellegrini A. (2005).

[27] The orginal names *zones de mise en défense* (ZMD) and *zones de conservation communautaire* (ZCC) are translated from French by the author. However. I'll also refer to them as PAs.

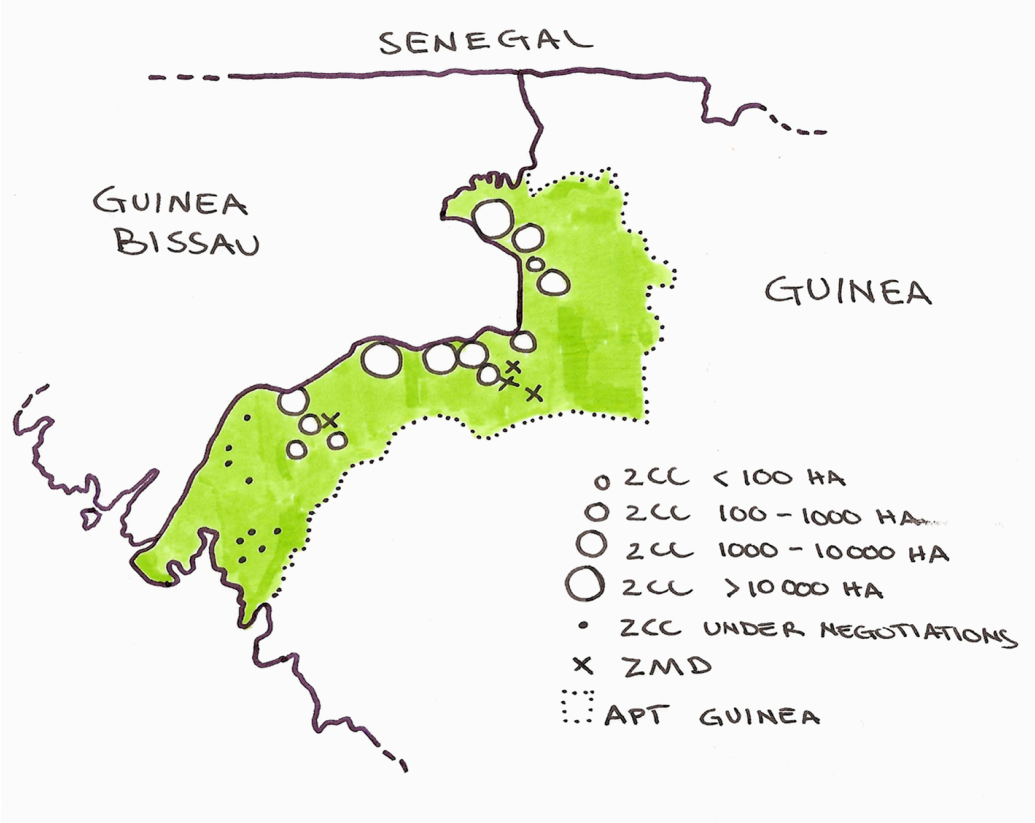


Fig. 8, ZMD and ZCC in Guinea

The implementation of the ZMDs and ZCCs took place through a 5-phase procedure: 1.contacting the population and identifying the area (information and nature awareness); 2. studying of the zone to protect (study of the site, delimitation, sharing of information); 3. elaborating a protection plan (definition of activities, creation of a local committee, short term management plan); 4. following administrative procedure (legal validation of the protected area); 5. creating a management plan with the villagers (identification and organization of the actions, elaboration of a calendar, execution of the management plan); (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005).

According to Ghiurghi & Pellegrini's report, not all the forty-two ZCC have implemented all the 5-phases just mentioned (2005). The reason for that is two-fold and attributable to: (i) the long time needed to implement all the 5-phases of the procedure outlined above; (ii) the fact that the community-based approach

implemented in the APT itself implies an openness to changes and the evolution of each of the ZCCs. They can shift size and status according to the changing needs of the communities and as such are projects in continual evolution.

The difference between ZMDs and ZCCs relates to the fact that ZMDs are small, they do not provide different levels of protection within their boundaries (for instance core and buffer zones), and they belong to a single village (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005). Accordingly, as pointed out by Turco (2005), the ZMDs answer the need of protecting very specific ecosystems.

While the ZMDs belong only to one village, the ZCCs occupy a territory belonging to more than one village, as they are located within a network of villages. Therefore, the implementation of a ZCC is more composite. However, in both cases, once the territorial structures are clear, it is possible to identify the interlocutors within the legal and legitimate spheres, and investigate the local strategies of resource preservation. In this way park managers are able to interact with stakeholders historically and culturally connected to the area, that can represent the interests of its inhabitants. As the analysis highlighted, this can be a weak point, because different people can have different interests over the ZCCs and ZMDs, and might promote a misreading of the territory to their own advantage. While others might have an interest in excluding some interlocutors that in reality have a central role for the legitimate existence of the area (see paragraph 4.5.2).

The management and control of a ZMD or a ZCC is shared between a local management committee (with villagers from the legal as well as the legitimate sphere), and the forest guards provided by the state administration (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005). To strengthen the communities' capacity to manage the natural resources, small councils have also been established with the role of organizing environmental awareness campaigns, and of being the reference point for local and external exploiters as well as the administration (Ghiurghi & Pellegrini 2005).

However, issues of belonging might make it hard for some actors to have a voice in those councils (paragraph 4.5.2).

Both the approaches implemented in the W Park and the APT have strengths and downsides. The next paragraphs show the analysis of the two PAs in the light of Gleditsch's model, to highlight which aspects of the design and implementation influence the conflict escalation.

4.2 "Population growth & high resource consumption per capita"

4.1.1 Population growth & high resource consumption per capita in the W Park

Around the W Park there are approximately 405,000 inhabitants distributed unevenly among 1,019 villages, hamlets and camps (Boulovi 2005). People formerly living inside the park that were forced to move out form a good deal of this population. Indeed, the population density augmented noticeably outside the park's limits as the largest part of the displaced population did not move far away, but stayed in its proximity, in order to maintain cultural, economic and emotional attachment to their land (Camara 2002; Burini & Ghisalberti 2003; Camara & Vallodoro 2003; Turco 2004; Boulovi 2005).[28] This phenomenon does not indicate a population growth *strictu sensu*, but an augmentation of population density. According to Diehl and Gleditsch, population density is also an indicator of population pressure over resources (Diehl and Gleditsch 2001), because population size and consumption patterns are recognised as correlates with resource demand (Kothari, Lockwood et al. 2006).

The increased population density around the park's boundaries created an augmentation of consumption. Consequently, more land is needed by the villagers to meet the increased need of goods and to increase production. As pointed out by an old man interviewed by Camara & Vallodoro:

[28] For an example of the consequences of displacement and resettlement see the *eco-functional* network of Kérémou-Gbéniki-Soroko after the displacement of Tobey, in : Burini, F. and Ghisalberti A. (2003).

"... Our situation reminds that of fishes in a dry river. Everybody aims at the few humid part of land", (Camara & Vallodoro 2003). [29]

The old man meant that the demographic augmentation led to increased need for goods, for land (for cultivation and livestock), and for exploitable resources. Thus, it introduced a high degree of competition over the natural resources (Camara & Vallodoro 2003).

Field reports indicate other indirect effects of displacement. For example, the introduction and intensification of clashes between different social categories (peasants/livestock farmers, for example), and between the local population and the authorities implementing the displacement (Toutain, Compaoré et al. 2001; Camara 2002; Burini & Ghisalberti 2003; Camara & Vallodoro 2003). The first type of clashes is mostly due to the new arrangements needed to ensure livelihood of the increased population living around the park. Peasant and farmers, for example, need to find new ways to cohabit in a smaller area that offers fewer resources. While the clashes directly connected to displacement reflect the natural reaction of people who are not willing to leave the place where they traditionally lived.

To avoid external interferences in the PA, park managers implemented displacement. But such interferences can be also temporary and caused for example by shepherds with their cattle. To avoid such intrusions, W Park's administrators forbade the use of paths to the nomadic shepherds and herdsmen (Boulovi 2005). Shepherds in the area commonly used this practice to seasonally move their animals in search of pasture. Therefore, the closing of these traditional paths limited their opportunity to bring the cattle to better pastures. One of the consequences experienced in the area was the increase of permanent and temporary camps of herdsmen in the proximity of villages. This phenomenon caused a further increase of population density, intensifying competition over the use of natural resources in the park's proximity (Boulovi 2005).

[29] Translated by the author from: « *...notre situation se ressemble à celle des poissons dans une rivière asséchée. Tout le monde désire les rares parties humides du terrain* ».

While other shepherds decide to ignore the prohibition, creating obvious clashes (4.4.1).

4.2.2 Population growth & high resource consumption per capita in the APT

In the APT Guinea each ZCC and ZND is negotiated with the local villagers, more precisely, with those belonging to the villages' network (or networks), that has control over the area. In this way, the interlocutors identified are meant to be representative of both the population and the administration. They negotiate and finally decide whether a portion of land should be allocated to environmental protection. The local communities, through spokespersons then decide, with the assistance of AGIR, where exactly the ZCC or ZMD will be located, its size, its boundaries, etc. Due to the reduced size of these PAs and the participatory negotiation, it is unlikely that villagers need to be displaced (Arbore, Leone et al. 2005). Subsequently, these issues should be normally solved before the implementation of the ZCCs or ZMDs.

The nature protection in the APT is highly fragmented (46 areas), and the size of the ZMDs and ZCCs does not often exceed 10.000 hectares (Ghiurghi & Pellegrini 2005). This means that for the shepherds, the creation of these PAs does not represent a threat as they can easily work their way around the PA with their cattle.

Finally, the density in the area where AGIR operates is relatively low: 13,77 hab./km², and 30,9 hab./km² in the rest of the country (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005). In some areas the density grows seasonally, since some peasants move periodically to find better conditions for their cultivations (Arbore, Leone et al. 2005). In the same way, density changes when the shepherds move to the seasonal pastures (Ibid.). In these situations there is an augmentation in the use of the available resources, however this phenomenon is not attributable to the introduction of the ZMDs and ZCCs. Beside these seasonal augmentations, the rural areas generally lose inhabitants because there is a tendency towards urbanization (Ibid.). Nonetheless, it can be said that there is no correlation between the creation of PAs and the first step of

Gleditsch's model in the area analyzed in Guinea. This is because the introduction of ZCCs or ZMDs does not play any role in the shifting of density mentioned above.

4.3 "Deteriorated environmental condition"

4.3.1 Deteriorated environmental condition in the W Park

Displacement and density augmentation also influenced the environmental conditions of the area in the proximity of the W Park. As observed by the field researchers (Camara 2002; Camara & Vallodoro 2003), and by park observers (Boulovi 2005), the extent of cash-crop agriculture around the W Park enlarged noticeably. Moreover, the lack of available cultivable land forced the peasants to intensify the use of the soil, as the same amount of available land has to satisfy a larger population. In these conditions it is very difficult for peasants to apply a rotation which will leave the fields fallow. Fallowing is the practice of leaving a field for at least one year without a crop in order for it to recover its natural fertility. This practice is especially used in areas where farmers cannot afford fertilizer. In poor lands, as those around the W Park, the fields need this "rest" for up to even ten years before they can be successfully cultivated again. When the pressure on land is very high, peasants tend to shorten the period of fallow. The result in the long run, is that the soil becomes increasingly impoverished.

The increased pressure on land thus causes a reduced fertility of the soil (Camara & Vallodoro 2003; Boulovi 2005). Sherebinin and Freudenberg go even further by pointing out that governments' transmigration schemes resulted in a remarkable increase in population density, causing malnutrition (Sherbinin & Freudenberger 1998:45). The authors go as far as to state that the W Park administration makes the population lose supplies, and controversially, favours primates instead (Ibid.).

Nevertheless, without going that far, it can be stated that the general environmental conditions of the area suffer increased exploitation due to the augmentation of population density, as well as the lack of access to fresh land.

4.3.2 Deteriorated environmental condition in the APT

The field researchers in Guinea reported signs of environmental degradation in the area (Arbore, Leone et al. 2005). The cause for this deterioration seems to be the tilling of new portions of land. According to Arbore, Leone et al., farmers in Guinea are used to having a great availability of land, as one of the outcome of the low population density in the area is the high availability of cultivable territory per capita (2005). In other West African countries (as in those hosting the W Park) the amount of accessible land and the productivity of the fields are normally quite low. These difficult circumstances encouraged the improvement of agrarian techniques and the ability of safeguarding the fields' productivity (Camara & Vallodoro 2003). In the area where AGIR operates, the peasants never had great problems with the availability of land. Accordingly, they developed fewer systems to ensure the endurance of their fields' productivity (Arbore, Leone et al. 2005). Guinean farmers employ systems of crop rotation and fallow as in other West African countries. However, the tendency in this part of Guinea is to till new portions of land while the fields lie fallow (Ibid.). In this way new portions of forest and savannah are regularly transformed into farmland for new cultivations. In addition, this phenomenon accelerated in recent years, due to the introduction of cash crops cultivations into the area, as for example the cashew (Ibid.).

The practise of transforming forest and savannah into cultivated fields increases the deterioration of the environmental condition in the area, creating challenges for the survival of wildlife (Arbore, Leone et al. 2005). Nevertheless, in this context, the introduction of ZMDs and ZCCs does not seem to be the variable that causes the deterioration of environment. On the contrary, here nature protection seems to be the means to protect portion of land from this practise.

4.4 "Increasing resource scarcity"

4.4.1 Increasing resource scarcity in the W park

As portrayed in chapter 3, the W Park is located where the savannah grassland transforms into forest-woodland savannah. It would be wrong of us to imagine some

sort of verdant jungle. Nevertheless, even if the area is not as luxuriant as the appellation "park" can make us think, livestock is still abundant. The resources enclosed in the W Park are protected from external interferences; therefore they are not available to the population. For this reason "resource scarcity" is understood as the shortage of available resources to the population that lives in the proximity of the W Park, and not as scarcity in absolute terms. Therefore, this paragraph deals with the peripheries of the W Park.

In the previous section I introduced the problem of overexploitation of land. The main consequence of this problem is the impoverishment of the soil, which provides lower quantity and quality of products. In addition, the increased extent of cash-crops cultivations tends to further impoverish the fields. Numerous villages registered decreasing livestock available to the population. This problem especially involves livestock farmers and shepherds. As noted by Camara & Vallodoro, peasants need to enlarge the portion of cultivated land, leaving portions too small for pasture. This phenomenon adds problems to the shepherds who have already lost access to their normal pasture paths within the W Park. One of the few alternatives for livestock famers and shepherds, is to break the law and take the risk of entering the park (Sherbinin & Freudenberger 1998; Burini & Ghisalberti 2003; Camara & Vallodoro 2003).[30] Aware of the difficulties for the shepherds, the W Park's managers introduced new, less intrusive paths for the animals. However, these new routes are excessively long and the animals are often not able to survive the long journey (Convers 2002). Predictably, a large number of livestock are brought into the park in order to survive (Toutain, Compaoré et al. 2001).

Bringing the herd into the park is a risky business. If the forest guards find livestock within the W Park's boundaries, they can give a fine to the cattle's owner, they can confiscate the animals for a period, or they can kill the herd or a part of it (an option which applies mostly in Benin), (Toutain, Compaoré et al. 2001; Convers 2002).

[30] The field researchers have, among other places, registered this phenomenon in Kondjo, Mourekouara, Kiwirkoye, Bossia, etc. Burini, F. and Ghisalberti A. (2003).

Accordingly, going into the PA is not a careless decision taken by the shepherds. It is instead the result of unresolved conflicts between the peasants and the park's administration. But it is above all the result of the lack of resources, which are not enough to satisfy the needs of all the different stakeholders now sharing the park's proximity.

4..4.2 Increasing resource scarcity in the APT

This aspect of Gleditsch's model is observed only in a few reports regarding the APT Guinea. Arbore et al. show that resource scarcity in the area relates to essentially fishing, hunting and livestock (Arbore, Leone et al. 2005). In the first two cases, fishing and hunting, the decrease of available resources is determined by overexploitation (Ibid.). According to the villagers interviewed, over-fishing and over-hunting are consequences of the exploitation carried out by seasonal fishermen and hunters (Arbore, Leone et al. 2005). The locals claim that the resources are enough for their living, but they became scarce when seasonal workers exploit the area, especially if they do it commercially. This situation creates the menace of conflicts between residents and foreign exploiters. In the case of livestock, the problem is connected to the peasants' practise of burning grass in order to till new fields. This issue is linked to that mentioned earlier (4.3.2): peasants extending their fields instead of implementing new techniques of cultivations. This practise reduces the area available for pasture, creating difficulties for the livestock farmers.

There is no causal relationship between the creation of ZMDs and ZCCs and this aspect of the environmental conflict escalation model, as the introduction of PAs does not increase the arrival of seasonal exploiters. On the other hand, it could be stated that the introduction of PAs might reduce the territory to be shared between livestock farmers and peasant. Nevertheless, no observation in this regard was reported in the document analyzed. In addition, PAs could be used as instrument to regulate the exploitation of the area. Locals aim to force seasonal workers to follow the rules introduced by the residents in collaboration with the state and park managers. The

same concept applies to the peasants/farmers quarrel: through protecting portions of land and regulating their exploitation, users could guarantee space for their own activities.

4.5 "Inequity"

4.1.1 Inequity in the W Park

This step of Gleditsch's resource escalation model is one of the most composite of this investigation. To facilitate the analysis, I attempted to group the various aspects of inequity in the W Park, as the following: (i) loss of status and (ii) uneven access rights.

Loss of status

Once more the starting point is the displacement of the population outside the park. Villagers that have been displaced are subjected to a number of losses.

First of all they lose their land; with all the traditions, memories and goods connected to it. Then, after they resettle in another area, they have to deal with the defeat of their authority and power. Those that were recognised as chiefs, with power of giving authorization for land use, are now left with nothing.[31] They themselves have to request land use from other leaders, and so have to do all the displaced people when resettling elsewhere. Furthermore, as they are the last to arrive, they are given the least rights (Camara 2002; Camara & Vallodoro 2003).

The displacement has also consequences for women's status. They no longer have the rights of using the park's area for their harvest. It is a loss because with what they got from this activity they could normally support themselves. As a consequence, they lose the extra income they used to have and their little economic freedom (Camara 2002).

[31] In many areas of West Africa, the use of land is not ruled by private property. Often villages have a "land chief" who gives temporary concession to exploit portions of land that are under the village control. Frequently, the land chief is a different person to the village chief, but sometimes they can overlap.

Finally, the nomadic herdsmen also experience a loss of status and identity. In many cases, the closing of traditional paths in the park or the extreme length of the new ones makes some nomads decide to settle. For them it is an extreme step, which also has great influence on the organization of the society. This is especially true for those groups for whom the cattle have great importance and social meanings, such as the Fulani (Camara & Vallodoro 2003).

The post displacement period is therefore highly stressful experience for both the displaced people and their receivers. Indeed, displacement forces the villages to deal with the fragmentation of their own organizational structures. The displaced villages disappear, and communities become jeopardized; while receiving villages are challenged by reorganising life to include the newcomers. Furthermore, the sentiment of expropriation is thus two-fold: (i) the population sees their land, their village, their goods, materially going under the state control; and (ii) they feel symbolically expropriated of their rights and their traditional power system (Turco 2004).

Uneven access to rights

Another problem concerns the right to access the PA (Camara 2002; Burini & Ghisalberti 2003; Camara & Vallodoro 2003). Tourism is one of the revenues of the W Park, as tourists visit the PA to observe wildlife and to have the possibility of hunting in game reserves (Boulovi 2005). To do so, they need an authorization and often need to pay for their stay, for their rights to hunt, and for the potential catch.

Local people hold no or limited rights to exploit the park, in which many lived before. Instead, foreigners can do so by paying to access the park and its natural resources. Money becomes the means of gaining rights to exploitation. In this way, villagers perceive that game is denied to local hunters, while being accessible to foreigners. In addition, the revenues of these tourist activities are not going to them but mostly to the state (Turco 2004).[32]

[32] To avoid problems related to this aspect the park created the ZOVICs which are hunting areas managed by the local population. However, this experiment seems not yet fully successful. For more information please see page 20 in Boulovi, G. M. (2005).

This problem is not only relevant in its merely material aspect. It has instead a highly symbolic significance for the society. The forest is often the place hosting the ancient spirits, who give, among other things, the right to exploit land. When displaced, the population has to leave the sacred areas where the ancestors live and they cannot access them anymore. Already traumatic, displacement becomes unbearable when strangers can access and even camp in these sacred areas, while the local communities cannot perform their traditional rituals (Burini & Ghisalberti 2003; Camara & Vallodoro 2003).

This aspect is particularly relevant as the population feel inequity and injustice in the way they are treated by park managers. Situations such as the ones exposed above were observed in several areas around the W Park. Those problems connected to uneven rights to access the park have been recorded as relevant to potential or ongoing conflicts in the area (Camara & Vallodoro 2003).[33]

4.5.2 Inequity in the APT

Most of the concerns regarding the PAs in the APT Guinea are linked to this category of Gleditsch's model. Inequity has been reported in relation to the participation of interlocutors in the negotiations, and the employment of territorial structures (Arbore, Leone et al. 2005). More precisely, it is possible to categorize the inequity issues observed in the APT, into four main groups:

1. villages trying to be recognised as part of a village network, in order to gain control over a PA and share potential revenues;
2. villages trying to leave out other villages in order to gain more control over the PA and the potential revenues connected to it.
3. negotiations in which relevant interlocutors have been left out;
4. negotiation in which irrelevant interlocutors have been involved.

[33] There are a large number of villages recording this problem. However, an exhaustive example can be given by the situation in Karey Kopto. For further information on this case, please see Camara, L. and Vallodoro A. (2003).

These issues are all related to the work preceding the implementation of the PA. As previously outlined, the creation of ZMDs and ZCCs is based on the capacity of recognising the dichotomy legality/legitimacy; of identifying relevant and representative interlocutors; of individuating the territorial structures and of being aware of the local competence (paragraph 2.2). The sense of inequity perceived by the population appears when one or more of those steps fails to reach their objective. The failure might be caused by the inability to understand local social constructions. Some may not succeed in recognizing the relevant territorial structures due to carelessness, superficiality, or failure to read the African society. However, the reason might also be connected to a misleading perpetrated by villagers who have hidden agendas (Arbore, Leone et al. 2005).

A concrete example was reported in a village called Dikola (Arbore, Leone et al. 2005). The village's chief criticized the AGIR project because it did not include his village among those having control over a ZCC. A deeper field research project followed in order to restore equality within the villages. The research highlighted that the village was not part of the network controlling the PA. Thus, it had no legitimate power over the ZCC. The village's chief was giving fallacious information to introduce a misleading view of the territory. His goal was to gain control over the ZCC and a share of the possible revenues connected to it (Ibid.).

Similar cases have been registered in other areas of the APT, complicated by ethnic issues and shifting of control over land. In a ZCC called Kakiire, for example, the main interlocutors involved by AGIR were from a Nalou group that had exploited the area for years (Arbore, Leone et al. 2005). The negotiations to create a PA began with the Nalou group and had a positive outcome. At this point a group of Balanta contested this process, affirming that the area belonged to them. Follow-up enquiries reported that the area belonged to the Balanta but was given to the Nalou for exploitation many years before. In this case the situation became quite critical, as it was difficult for AGIR to give priority to one of those group, for they both showed legitimate claims over the territory.

These two examples were reported here to show how the inequity issue has been perceived in the area as the most conflict prone aspect of Gleditsch's model. The villagers that are left outside the negotiations might feel a sense of injustice, which can shift into resentment towards the project and towards other villages. In addition, in areas where the rights over land are not clear, it can be difficult to achieve win-win negotiations, as one of the parties can feel overruled.

In addition, issues of belonging can complicate perceptions of inequity. Geschiere emphasises how struggles regarding who really belongs to a certain village/area, arise when local communities are promoted as stakeholders in nature preservation projects (2004: 238 and 240). According to the author, environmental projects that "promote poorly defined local communities as stakeholders may activate or reactivate forms of social exclusion", in some cases going as far as episodes of xenophobia (Ibid.:252). In this specific case these risks are all at stake. The method applied in the APT relies on a deep understanding of the local context. However, it might be difficult for example to decide if, how, and where nomads should be represented. The same problem arises for people who originally belonged to a certain village but, while maintaining strong ties to it, have moved elsewhere; or for newcomers to a certain place, or for those arriving after the negotiations or the creation of the PAs. Thus, issues of belonging can become central in Pas' implementation, because control over land, management of natural resources and distribution of revenues are negotiated through patterns of belonging.

Finally, even the very method applied in the APT Guinea might strengthen inequality in the long run because it gives great attention to the traditional power structures. As shown, these are important to implementing negotiations where all the stakeholders feel represented. However, by doing so, this approach could help reinforce certain power structures that are well respected but are not always very democratic in West sub-Saharan Africa.

4.6 "Harsher resource competition"

4.6.1 Harsher resource competition in the W Park

In the first part of this chapter I described how the displacement of villages, and the general limitation of access to the PA, led to an augmentation of pressure on the land. Consequently, the same resources have to satisfy the needs of a larger number of individuals with the resultant augmentation of competition over the access, use and control of the natural resources.

This paragraph focuses on three of the direct effects of increased competition over the resources around the W Park.

The first aspect regards clashes between different working categories (peasant/livestock, farmer/shepherd for example). Between these, there is a rise in tension due to the different ways of understanding the territory and its use. Indeed, each of these groups plans to address the natural resources in a specific way (cultivated fields, pasture, etc.), and clashes occur when the priorities are different. In the same way, villagers feel resentment towards the park's administration, for putting the area to a different use which excludes them (Toutain, Compaoré et al. 2001; Camara 2002; Convers 2002; Turco 2002b; Burini & Ghisalberti 2003; Camara & Vallodoro 2003; Turco 2004).

The second consequence of resource competition has direct influence on the park's endurance. To loosen up the tensions between different working categories, some villagers extend their cultivations or pasture inside the W's boundaries (Toutain, Compaoré et al. 2001; Convers 2002; Burini & Ghisalberti 2003). Indeed, resource scarcity and increased competition can induce the villagers to not respect the PA's rules, and exploit the resources in the park. In this way they increase the portion of resources per-capita, decreasing the level of competition within the different stakeholders. However, by invading portions of the park, they enter into direct

competition with wildlife for natural resources (Boulovi 2005), and increase the tension with the W's administrators and forest guards.

The last aspect discussed here is the further displacement of people. Some families hold strong rights over land, assuring their own endurance (Burini & Ghisalberti 2003). Conversely, most people, especially those who resettle after displacement, do not have consolidated rights over land. Often, the only solution for these people is to go through further displacement. This can be of two kinds: some families decide to find a new place to stay (often abroad), hoping to find better opportunities (Burini & Ghisalberti 2003); but in most cases it is the young men who leave the villages for seasonal or temporary jobs. They are often directed towards places where they can work in plantations. Otherwise they go abroad, often to Nigeria, to work with trade (Burini & Ghisalberti 2003). This is evidently a problematic issue, as people experience further displacement, and especially because the young and strongest workers leave, creating unbalanced and dysfunctional societies.

4.6.2 Harsher resource competition in the APT

According to the document accessed, within the APT the competition to access the natural resources is limited (Arbore, Leone et al. 2005; Ghiurghi & Pellegrini 2005; Turco 2005). In normal conditions, the low density that characterizes the area gives ample space of action for the different exploiters. Obviously, there might be issues of equality in accessing the best fields or bigger portions of land; as the traditional systems to assign cultivable land are mostly respected but not always particularly democratic or fair. Nevertheless, most problems occur between local and seasonal exploiters. Augmented competition over the natural resources has been also recorded in connection to cash crop cultivations. In the areas where this practise is increasing, there is indeed a large need for fields for long term exploitation (Arbore, Leone et al. 2005), increasing competition to access more land. Nevertheless, these issues are not directly related with the introduction and the implementation of PAs within the APT.

However, it is important to be aware of them, to know which are the tensions in the area.

What connects the introduction of both ZCCs and ZMDs to this step of the model is the interest to share control over them. As introduced in the paragraph analysing inequity, some villages struggle to be included among those sharing the control over a ZCC or a ZMD (Arbore, Leone et al. 2005). They do so hoping to share also possible advantages or revenue occurring in connection to the PAs. These competitions normally take place in a serene way through attempts to claim traditional ties to the land (Ibid.). However, some of these quarrels are less peaceful, involving ethnic issues or struggles for power control (Ibid.). AGIR has only one tool to deal with those issues. This is to prevent inequality, and to avoid a misreading of the territorial structures. This is a very central point for the success of this community-based approach to nature preservation; because a failure or a mistake in individuating interlocutors or territorial structures can increase feeling of inequity and competition over resources.

4.7 "Greater risk of violence"

4.7.1 Introduction

In the previous paragraphs, I analyzed the W Park and the APT Guinea in relation to population growth and resource consumption, deteriorated environmental condition, increasing resource scarcity, inequity and finally, harsher competition for resources. Each of these steps highlighted the main problematic outcomes of the two PAs' structure and implementation. This paragraph goes a step further to see which of these outcomes result in a greater risk of conflict.

In the following chart a parallel is shown between Gleditsch's model's steps and the situation in the W Park and the APT Guinea:

Table 1. Conflict escalation in the W Park and the APT Guinea

CONFLICT ESCALATION STEPS	SITUATION IN THE W PARK	SITUATION IN THE APT
Population Growth &High Resource Consumption Per Capita	▪ High population density ▪ Augmentation of consumption ▪ Intensification of use of soil	▪ Low population density ▪ Use of extended fields per capita
Deteriorated Environmental Conditions	▪ Impoverishments of soil	▪ Impoverishments of soil (not due to the APT introduction)
Increasing Resources Scarcity	▪ Decrease of livestock available per capita ▪ Illegal exploitation of the PA	▪ Seasonal overexploitation (not due to the APT introduction)
Inequity	▪ Loss of status- degeneration of social structures ▪ Uneven access to PA- resentment and conflict	▪ Competition to control the PAs ▪ Risk of involving wrong interlocutors- issues of belonging, resentment and conflict ▪ Risk of misreading the territorial structures
Harsher Resources Competition	▪ Tension between stakeholders ▪ Illegal exploitation of the PA ▪ Further displacement - degeneration of social structures	▪ Tension between villagers

The chart gives an overview of the thorny issues connected to the implementation of the PAs (highlighted in grey). These challenging issues are, according to the model of environmental conflict escalation, the ones that might generate conflicts.

4.7.2 Greater risk of violence in the W Park

According to the data analyzed, existing or potential conflicts around the W Park are of two main kinds: (A) conflict between different categories of the local population as peasant, livestock breeders, shepherds, etc.; and (B) conflicts between the local population and the Park's administration and the state (Toutain, Compaoré et al. 2001; Camara 2002; Burini & Ghisalberti 2003; Camara & Vallodoro 2003), (fig 9). [34]

[34] Fig. 11 is an elaboration of the same figure used in Turco 2004.

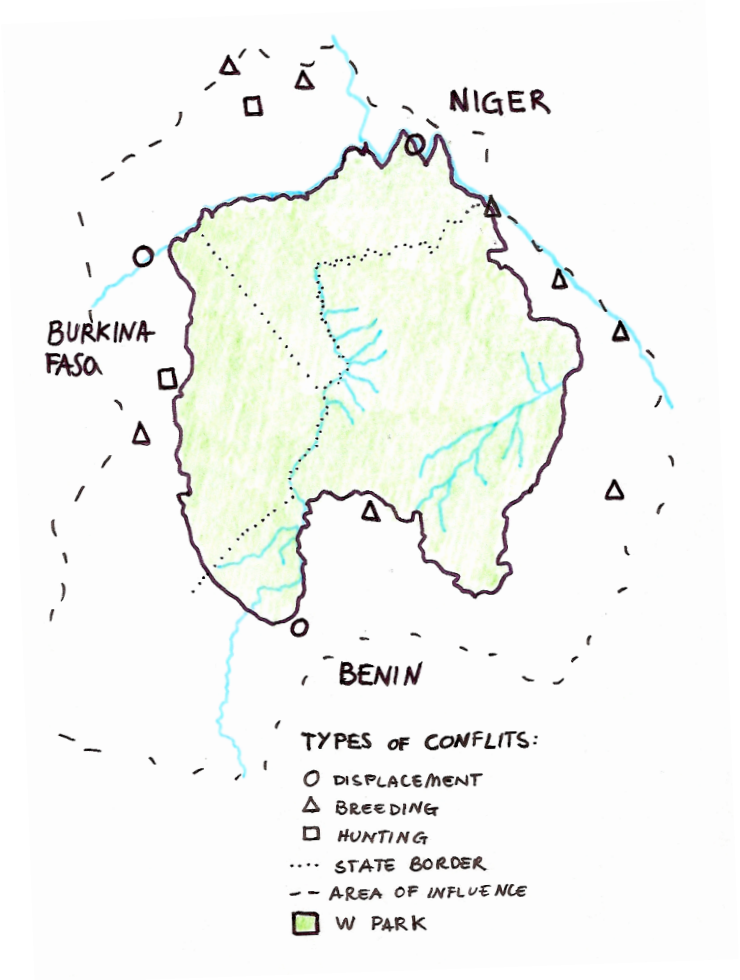


Fig. 9 Types of conflicts connected to the W Park

In the first group (A) fall the clashes between peasants and livestock farmers (both sedentary and nomads) localised in fig. 8 with "breeding". These conflicts are due to the strong competition over the use of natural resources and are three-fold. Clashes take place between (i) peasants and livestock farmers, as mentioned; between (ii) locals and those newly arrived (displaced people or nomads with their cattle); and between (iii) sedentary livestock farmers and nomads (Camara & Vallodoro 2003).

Additionally, work categories are often traditionally connected to the ethnic origins of the villagers. For example, shepherds are often Fulani, while peasants are often Gourmance. This means that conflicts between work categories might also take the form of ethnic clashes. Around the W Park, conflicts within the population took place

sometimes as punitive expeditions.[35] Violent episodes have also been registered during the passage of nomad herdsmen, since they can lose control of their animals and invade cultivated areas (Camara & Vallodoro 2003). As pointed out by Camara & Vallodoro, these episodes are increasingly common because, to overcome the lack of land and the increased demands of livestock, the peasants move their fields ever closer towards the paths used by the nomads with their cattle. In this situation clashes are likely to happen and can be quite aggressive (Ibid.).

The second category of conflict (B) involves the local population and the institutions. As highlighted in the previous paragraphs, this type of conflicts is rooted in:

- the restrictions on the population to enter the park without previous negotiations;
- the displacement of entire villages (fig. 9);
- the closing of paths for the seasonal shepherds;
- the closing of the area to local hunters (fig. 9);
- the management of the revenue;
- the opening to tourists, etc.

The local population does not have much means to oppose the park managers' actions. The main outcome of this clash is the general indisposition of the population towards the park's actions and the disregard for the park's regulations. Villagers often penetrate the PA to accomplish interdicted activities such as hunting, grazing, harvesting and even cultivating (Brown 1992; Toutain, Compaoré et al. 2001; Camara 2002; Convers 2002; Burini & Ghisalberti 2003; Camara & Vallodoro 2003). These activities compete with the wildlife the park intends to protect. Consequently, they generate an open conflict with the forest guards in charge of protecting the area. Those clashes can be quite dangerous given that some nomad shepherds are armed with guns

[35] I was personally present at an interview carried out by Prof. A. Turco and A. Converse in spring 2004, in which the villagers of one ethnic group openly admitted that they organised a punitive expedition to "beat up" villagers of another ethnic group. The reason for that was that some shepherds had lost control of their cattle, which entered cultivated fields and destroyed crops. In a following interview the shepherds recalled the fact, saying that those kinds of accidents were common because the space for grazing was limited, and they had to pass very close to cultivated fields.

or other weapons in preparation to meet the forest guards (Toutain, Compaoré et al. 2001).

4.7.3 Greater risk of violence in the APT

The previous paragraphs of this chapter highlighted some of the problems present in the APT linked to environmental exploitation and protection. To my point of view, these potential conflicts can be clustered into two main groups (fig. 10):[36]

1. clashes regarding the use of resources and;
2. clashes related to social organization.

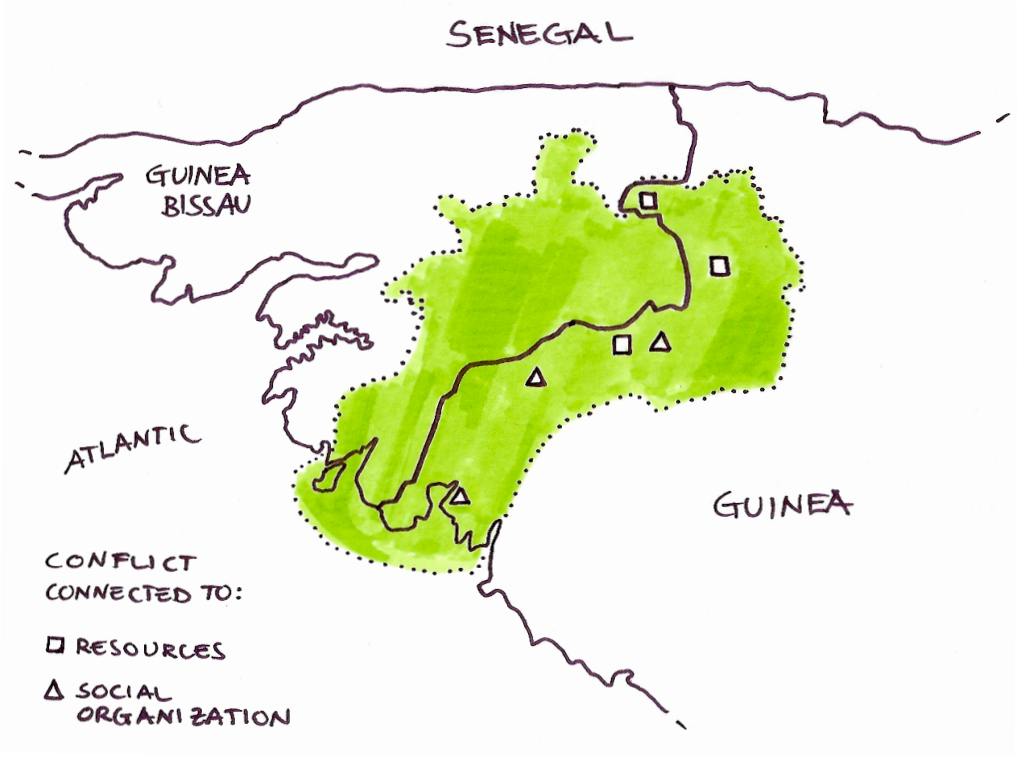


Fig. 10 Types of conflicts in the APT

The first group of conflicts is related to the access and use of the available natural resources. The clashes involve different categories of users planning to exploit the resources in different ways. Typical quarrels are those between peasant and livestock farmers, or between stable shepherds and nomads. Those conflicts are normally managed through existing problem-solving systems. The legitimacy system deals with those issues through traditional methods. When a solution is not found or leaves the

[36] Fig. 10 is an elaboration of a similar figure from Arbore, C., Leone G., et al. (2005).

parties unsatisfied, it is the legal system that takes charge of solving the disputes (Arbore, Leone et al. 2005). However, as pointed out by Højbjerg, conflict management seems to be less efficient in areas where the traditional structures have been fought by the colonialist or the post-colonial elites, as in Guinea (2007). Nevertheless, these types of clashes are not influenced by the introduction of the PAs. They are, however, worth being identified and mentioned, because through the knowledge of these existing problems it is possible to acquire useful information on the existing problem-solving systems used to resolve them.

The second group of conflicts is related to the social organization of the local communities. This type of conflict can sometimes be linked to the intervention of AGIR in the area and to the introduction of ZCCs and ZMDs. As shown in paragraph 4.5.2, the perception of unequal and unjust treatment can generate conflicting outcomes. The main problem for the implementation of the PAs within the APT Guinea is the risk of misreading the territorial structures and the power systems (legality/legitimacy). Great disappointment and frustration occurs within the population when the conservationists misinterpret the area of influence of a village and the ties within a village network, or mistake the choice of interlocutors that are representatives for a community. In these cases the population does not feel represented, or they feel that decisions are unjust and that park managers are incapable of understanding their world. The cause of these errors might be attributed to the inadequacy of actions taken by AGIR; but might also be the consequence of the wrong information that villagers voluntarily give out, in order to favour hidden agendas (4.5.2). Clashes between the population and AGIR as well as within the locals are the consequences of unhappiness and dissatisfaction of the residents. The elements on which this community-based approach hinges, are thus extremely delicate. When conservationists are dealing with the dichotomy of power structures, with the organization of the territorial structures and with the individuation of interlocutors, they are operating with very delicate elements of West African society. Disappointment among the population, and clashes are possible unwanted outcomes. Another possible consequence is that villages facing injustice and disappointment,

decide to withdraw from protecting nature through ZCCs or ZMDs (Arbore, Leone et al. 2005). Therefore, the two main goals of AGIR: to protect the environment and to improve the life standards of the population; are both at great risk if mistakes are made in understanding of the social organization of the local population.

4.8 Summary

In this chapter, the W Park and the APT Guinea have been analyzed following the method of structured, focused comparison (chapter 2). The model of environmental conflict escalation (Diehl and Gleditsch 2001), functioned as a guideline for the analysis. A number of issues, such as villages' displacement and inequity in accessing the resources increased the risk of conflict around the W Park. In the APT the risk of conflict seems to be connected to the misreading of the social organization of the local population, turning the elements supporting the community-based approach into a possible instrument of conflict escalation.

In the next chapter these findings will be discussed in order to find an answer to the initial hypothesis.

5. Conclusion

5.1 Introduction

The aim of this thesis was to investigate whether the design of protected areas can influence the escalation of conflict occurring between park managers and the local population, as well as within the local population itself. To fulfil this investigation, I relied on the method of structured, focused comparison in combination with Gleditsch's model of environmental conflict escalation. After presenting the concepts behind the two different approaches of nature protection (chapter two), and the countries hosting the PAs (chapter three), the analysis proceeded in two parts: first the W Park, representing the conservationist approach was analyzed following the five steps of Gleditsch's model; second, the same procedure was applied to the APT Guinea, representing a community-based approach (chapter four). In addition, I introduced some examples collected in the field research, to give the readers a better perception of the topic discussed.

5.2 Analysis outcomes

5.2.1 Expected outcome

When I started this research I was quite confident that the hypothesis would be proven showing with a large margin that the APT community-based approach is less conflict - prone then the W Park conservationist approach. As mentioned, this was probably because my field experience gave me a picture of people struggling more around the periphery of the W Park than in the APT. Furthermore, my personal attitude made me sympathize more with the APT "democratic" approach than the authoritarian style of the W Park; making me believe than the APT would be considerably less problematic in relation to conflict escalation.

While researching and analyzing the two cases, my expectations have been proven somewhat wrong. The situation was not as simple as I expected and my black and

white picture shifted into a grey one. Consequently, the answer to my research question became less evident after starting to analyze the data.

5.1.2 Findings

Table 1 in chapter four (below), shows how the W Park presents a number of pitfalls, such as augmentation of population density, impoverishment of soils, degeneration of social structures, etc. Most of those aspects proved to have roots in the design and implantation of the PA, as displacement of villages and people, closing of pastoral paths, etc. These major issues characterizing the W Park implementation, seem to result in two main negative outcomes:

1. competition between population and wildlife for the natural resources and;
2. escalation of clashes both within the local population and towards the park managers.

Table 1. Conflict escalation in the W Park and the APT Guinea

CONFLICT ESCALATION STEPS	SITUATION IN THE W PARK	SITUATION IN THE APT
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Increasing Resources Scarcity	▪ Decrease of livestock available per capita ▪ Illegal exploitation of the PA	▪ Seasonal overexploitation (not due to the APT introduction)
Inequity	▪ Loss of status- degeneration of social structures ▪ Uneven access to PA- resentment and conflict	▪ Competition to control the PAs ▪ Risk of involving wrong interlocutors- issues of belonging, resentment and conflict ▪ Risk of misreading the territorial structures
Harsher Resources Competition	▪ Tension between stakeholders ▪ Illegal exploitation of the PA ▪ Further displacement - degeneration of social structures	▪ Tension between villagers

All the same, table 1 shows that also in the APT there are a number of downsides, such as impoverishment of soils, overexploitation, etc. However, few of them proved to

have direct link with the creation of the ZCCs or ZMDs. According to the data analyzed, quarrels in the APT seem to derive from incorrect application of the method used to create and implement the PAs. In other words, when the territorial structures, the dichotomy legality/legitimacy, the interlocutors and the local competence are correctly identified, the ZCCs and ZMDs, seem to be working in balance with all the actors. This aspect should not at all be underestimated. As showed by Geschiere, the pitfalls related to the use of the local community as stakeholder can escalate to forms of social exclusion, and even xenophobia (2004). Thus, issues of belonging have to be taken into consideration; to know who has the right to be represented in the negotiations, and who has the right to have a share of possible revenues linked the PA, without creating feelings of inequity and resentment. The analysis of the APT has proved this aspect to be the Achilles' heel of the community-based method implemented in Guinea.

My research question was devoted to finding out whether the community-based design and implementation is more effective in preventing conflict escalation than the design and implementation based on the conservationist approach, under West African circumstances.

Primarily the analyses showed that the choice of design and implementation method of a protected area can have an impact on conflict escalation. This regards the local population internally, as well as their relations with the park managers. Moreover, it can be said that the conservationist approach seems to influence conflict escalation more then the community-based approach analyzed here. However, as anticipated above, the analysis underlined that the picture is not that clear.

The analysis showed how the W Park implementation has consequences for each step of Gleditsh's model of conflict escalation (table 1). In the same way, the analysis illustrated that conflicts in the APT appears at the level of inequity and not in the previous steps of the model. Finally, it can be stated that, according to this study, some aspects of the method implemented in the W Park are shown to directly influence the

conflict escalations. While, the method applied in Guinea, seems to be more effective in preventing conflict escalation, if all the procedures of implementation are correctly defined and applied.

5.3 Future prospects and concluding remarks

As stated at the beginning of this thesis, the main goal of protected areas is the preservation of natural resources and wildlife within their boundaries (Kamugisha, Stahl et al. 1997). Nevertheless, according to satellite images analyzed by Van de Bremer et al., up to 60% of park land in the 1990s was degrading instead of improving (Van de Bremer, Drijver et al. 1995). This outcome can have numerous causes, but as showed by the cases analyzed, one of them might well be the competition between local population and wildlife. It is therefore important for conservationists to evaluate whether a different approach towards nature protection can be more effective for reaching their goal. Efforts in this direction and accurate implementation of the PAs can be a step towards less conflicting outcomes, which can benefit the population.

It would be interesting to test the hypothesis analyzed here with further studies engaging protected areas. One such study could investigate the introduction of the approach applied in the APT (community-based) in already existing protected areas born under the conservationist approach.

Finally, it would be worthwhile seeing whether the method applied in the APT Guinea of deep knowledge of legality/legitimacy, territorial structures, interlocutors and local competence, could have further applications. This approach has shown to be rather composite, with the risk of being time consuming and to closely rely on the capacity of the individuals to understand African society and its structures. However, it would be interesting to test it in contexts other than nature preservation, such as factories, mines, oil drilling etc. A case in this direction is offered for instance in the Niger Delta. In this area quarrels between the local population and the oil companies seem to be linked to the fact that local communities feel left out from the negotiations regarding them (their

land and resources). In other words, people living by the Delta feel underrepresented and react with action of guerrillas, kidnapping, etc. (Okonta & Douglas 2003). It would be then valuable to see whether a deep knowledge of territorial structures and interlocutors could improve this situation (taking into consideration the pitfalls showed in this thesis).

This thesis looked at environmental conflicts on a local scale. Nevertheless, the fact that the conflicts under analysis are not extended and/or particularly intense should not make us underestimate them. As pointed out by Obi, environmental issues in Africa often relate to wider conflicts linked to politics, ethnic claims, gender identities, etc. (Obi 2005). This means that claims over environmental problems can escalate. The consequence is conflicts with roots in multiple sectors that are more complex to manage and solve (Faggi and Turco 2001). When we intervene in territories already transformed and managed, it is important to implement strategies that diminish the risk of clashes on different scales.

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