

Social Agency in Alpine Communal Forests

**Local actors' interactions with communal forests
and participation in communal forestry
in the French and Swiss Alps**

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Abstract

Given the vast amount of policy discourse claiming that participation of local communities is a condition for sustainable forest management, this research aims at understanding how local actors actually perceive - and interact with - their communally owned forests.

Without predetermining whether there will be participation at local levels or predefining what participation should be like at this level, we have selected six Communes in the French and Swiss Alps. The selection criteria were that they have a substantial part of their territory covered with communally owned mountain forests and that they tend to have multiple forest-related uses. Besides country and region based institutional variation of the region selected (between the French Haute-Savoie and the Swiss cantons of Valais and Vaud), we chose Communes with varying socio-economic and land-use contexts, as well as according to demographic trends and the relative importance of the primary (farming and forestry), secondary or tertiary sectors (mostly tourism).

Based on sixty-five semi-structured interviews, we first analyze local actors' perceptions of the communal forests so as to crystallize different forest values and forest related conflicts. We estimate the relative importance of these values and conflicts, comparing results between the Communes, and between categories of actors, based on their occupation, their age and their gender. Describing twenty collective agency processes, we develop a typology based on *who* takes part, *why* and *how*. Then we compare these processes in their capacity to either reproduce or change social structures and their relative dependency or autonomy from state authorities.

After exploring the background of the concept of 'participation' in democratic theory and in natural resources and forest policy making, we focus on micro-level social interactions and collective agency in communal forests. While taking a Grounded Theory approach for generating propositions based on a systematic qualitative interview analysis, we use insights from Anthony Giddens' structuration theory, as well as from Michel Crozier's strategic analytical methodology. We complement these with additional social theory concepts needed to address the cultural and ecological aspects of local social interactions with forests.

Interpreting our results, we find that local social interactions and collective agency processes in relation with communal forests are correlated with various local actors' values and with many of their expressed multiple land-use conflicts, but that they generally do not address forestry related conflicts. We notice important variations in perceived conflicts, values, and in the involvement of the actors according to their occupation, gender, age, and relationship with authorities. These findings provide insights about the power relations structuring local interaction systems. The grounded analysis of these variations leads us to distinguish an important cultural, economic, and political conflict line between urban and rural representations of the communal forest (livelihood versus quality of life), as well as between urban and rural strategies in local forest-related agency (local autonomy versus state control). Our research finds a strong relationship between the historical consolidation of state-led forestry institutions and concomitant erosion of common property institutions, and the impact of modernization on the place-making capacity of local actors interacting with their forest.

The result of this research is a set of propositions regarding local agency in communal forests and local actors' engagement in forestry, in the Swiss and French alpine region. These findings provide a better understanding of the local dimensions of participation in forestry.

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Deutschsprachige Zusammenfassung zur Dissertation von Andrea Finger-Stich mit dem Titel:

Social Agency in Alpine Communal Forests: Local actors' interactions with communal forests and participation in communal forestry in the French and Swiss Alps

Lokales Handeln in Gemeindewäldern der Französischen und Schweizer Alpen

Ausgehend der großen Anzahl von Literatur, die behauptet, dass die Partizipation von lokalen Gemeinschaften eine Bedingung für nachhaltiges Waldmanagement darstellt, versucht diese Studie zu verstehen, wie lokale Akteure ihren Gemeindewald tatsächlich wahrnehmen und dafür tätig werden.

Ohne Partizipation auf lokaler Ebene vorauszusetzen und ohne vorwegzunehmen wie eine solche Partizipation aussehen sollte, haben wir sechs Gemeinden der Schweizer und der Französischen Alpen ausgewählt. Auswahlkriterien waren dabei, dass ein erheblicher Teil des Gemeindeterritoriums aus gemeindeeigenem Bergwald besteht und dass dieser Wald auf vielfache Art und Weise genutzt wird. Die Gemeinden liegen in unterschiedlichen Ländern und Regionen (Haute-Savoie in Frankreich sowie die Kantone Waadt und Wallis in der Schweiz) und zeichnen sich durch unterschiedliche sozio-ökonomische und Landnutzungscharakteristiken aus. Weiter wurden demographische Kriterien sowie die relative Wichtigkeit des primären (Land- und Forstwirtschaft), sekundären und tertiären Sektors (vor allem Tourismus) in die Betrachtung mit einbezogen.

Die theoretische Basis unserer Forschung baut auf sozialen Handlungstheorien auf. Partizipation wird als kollektives Handeln verstanden, wobei zwei oder mehr soziale Akteure zusammen im Hinblick auf ein gemeinsames Ziel handeln. In der theoretischen Auseinandersetzung mit der Problemstellung fragen wir zunächst nach dem Hintergrund des Konzepts der „Partizipation“ in der Demokratietheorie und konzentrierten uns dann auf den Gebrauch dieses Konzepts in der Formulierung von politischen Inhalten, die sich auf das nachhaltige Ressourcenmanagement und die Waldwirtschaft beziehen. Dabei zeigt sich, dass das Konzept der Partizipation für die verschiedenen Akteure entsprechend ihrer sozialen Situation verschiedene Bedeutungen hat. Bei unserer Betrachtung der Bedeutung, die Partizipation für lokale Akteure in Bezug auf ihren Gemeindewald hat, konzentrieren wir uns auf Theorien, die Partizipation als ein soziales Interaktionsphänomen betrachten - insbesondere beziehen wir uns auf Anthony Giddens' Strukturierungstheorie, auf Michel Crozier's strategisch-analytische Methodologie sowie auf Lewis Coser's soziale Konflikttheorie. Um die kulturellen und ökologischen Aspekte der lokalen sozialen Interaktion mit dem Wald zu vertiefen, werden diese Theoriebausteine ergänzt um weitere theoretische Inputs, insbesondere durch den Ökosystemaren Ansatz. All diese sozialtheoretischen Konzepte werden zu einem eigenen theoretischen Rahmen zusammengefügt, der die Methodologie, die Methodenwahl und schließlich die Interpretation der Ergebnisse der empirischen Erhebungen strukturiert, um die Resultate der Analyse so wenig wie möglich zu beeinflussen. Um diese induktive Analyse durchführen zu können, benutzen wir die so genannte „grounded theory“ von Glaser und Strauss. Mit Hilfe dieses theoretischen und methodologischen Rahmens wird eine systematische Analyse von 65 qualitativen Interviews durchgeführt, mit dem Ziel, induktiv Thesen zu generieren (anstatt Hypothesen zu testen). Die offene qualitative Interviewmethode erlaubt es uns, zu verstehen, was die lokalen Akteure über ihren Gemeindebergwald und seine Verwaltung zu sagen haben, aber auch, weshalb sie entsprechende Überlegungen tätigen. Da das Interview selbst eine Interaktion ist, informiert es uns auch über den Übergang vom individuellen Empfinden zur verbalen Äußerung und zur sozialen Interaktion. Dieses Verfahren hilft die sozialen Strukturen zu

verstehen, die im Bezug auf die verschiedenen lokalen Akteure fördernd oder hemmend erscheinen und/oder diesen Raum zum Handeln ermöglichen.

Zunächst wurden die Wahrnehmungen und Wertungen analysiert, die die lokalen Akteure bezogen auf ihren Kommunalwald haben. Unterschiedliche waldbezogene Konflikte und Waldwertschätzungen werden dargestellt und bezüglich ihrer Bedeutung für die verschiedenen lokalen Akteure eingeschätzt. Schließlich wurden 21 kollektive Handlungsprozesse in den sechs Gemeinden analysiert und in einer Typologie systematisiert, die auf den Zielen und den gemeinsamen Strategien, auf den Machtverhältnissen zwischen den Agenten und den Behörden sowie auf der Tendenz, soziale Strukturen zu verändern oder zu reproduzieren, aufbaut.

Dabei zeigt sich, dass die Akteure, die hauptberuflich im Wald tätig sind, mehr Konflikte äußern als diejenigen, die im tertiären und sekundären Sektor arbeiten. Frauen, Jugendliche und Menschen, die im tertiären und sekundären Sektor beschäftigt sind, äußern demgegenüber mehr Wertschätzungen des Waldes. Dabei korrelieren die lokalen sozialen Interaktionen und die kollektiven Handlungsprozesse im Bezug auf den Gemeindewald mehr mit den waldbezogenen Werten der verschiedenen lokalen Akteure als mit den geäußerten Konflikten. Erbschaftsbezogene Werte („*patrimonial values*“) – die neben dem Eigentumswert, für die Interviewten, mit lokaler Holzarchitektur und - handwerk, mit über Generationen vermitteltem lokalem Wissen, und mit kollektiver und persönlicher Identität zu tun haben, erscheinen besonders prägend für die lokale Bevölkerung zu sein. Diese Werte motivieren auch einen großen Teil der waldbezogenen Interaktionen. In abnehmender Folge der Wichtigkeit sind dies für die lokalen Akteure: der *Erbschaftswert*, der *Ressourcenwert*, der *Naturschutz*, die *Erholung* und der *Schutz vor Katastrophen*. Die lokalen Akteure definieren den *Ressourcenwert* vor allem über Arbeit, Einkommen, Energie und Baumaterial sowie als Quelle für Nahrungsprodukte. Der *Ressourcenwert* erscheint besonders wichtig für die Akteure, die in Wald- und Landwirtschaft tätig sind, während sich die Akteure, die hauptberuflich im tertiären und sekundären Sektor beschäftigt sind, - dem *Erbschaftswert* nachgeordnet - besonders für die *Umwelt*- und den *Nachholungswert* interessieren.

Die forstbezogene Konfliktanalyse zeigt, dass ökonomische Probleme der Alpenwaldwirtschaft am häufigsten erwähnt wurden, gefolgt von operationalen Konflikten und waldmanagementbezogenen Konflikten. Was die Bodennutzungskonflikte betrifft, die mit dem Wald nur indirekt verbunden sind, so äußerte sich die lokale Bevölkerung in erster Linie über Landwirtschaft, gefolgt von Naturschutz, Erholung, Verstädterung, Schutz vor Naturkatastrophen und Nicht-Holz-Wald-Produkte („*non-timber forest products*“).

Im Gegensatz zu den französischen Gemeinden in denen Konflikte zwischen Landwirtschaft und Walderbezogenen Arbeiter dominieren, sind es in den Schweizer Gemeinden eher die Konflikte um *Naturschutz* und *Verstädterung*, die Anlass für lokale kollektive Handlungsprozesse geben. Die Interviews zeigen, dass sich die Akteure oft vor lokalem sozialen Ausschluss fürchten und es somit vermeiden, Konflikte auf lokaler Ebene zu äußern. Beim Vergleich der interkommunalen Variationen von Konflikten und Werten, wurde beobachtet, dass Konflikte mehr mit dem Ort variieren, während waldbezogene Wertungen weniger ortsspezifisch sind. Es scheint, dass die Gemeinden, in denen die meisten Waldwertschätzungen gefunden wurden, auch oft die sind, die recht viele Konflikte aufweisen und dass dies auch die Gemeinden mit den meisten kollektiven waldbezogenen Interaktionen sind. Es zeigt sich also, dass Wertschätzung des Waldes und Konflikte Interaktionen fördern und dass solche Interaktionen wertbildend sind. Die Forschungsergebnisse zeigen weiter, dass in Gemeinden, in denen es trotz vieler Konflikte weniger waldbezogene Interaktion gibt, auch wenige Werte zum Vorschein kommen.

Wichtige Unterschiede zwischen den Akteuren konnten herausgestellt werden, und zwar in Abhängigkeit vom Sektor, in welchem diese tätig sind, vom Geschlecht, vom Alter sowie von ihrer Beziehung zu den Behörden. Die berufliche Tätigkeit stellte sich als der prägende Faktor heraus. Die verstehende („grounded“) Analyse dieser Unterschiede deutet auf eine wichtige kulturelle, ökonomische und politische Konfliktlinie zwischen städtischen und ländlichen Wahrnehmungen der Gemeindewälder sowie zwischen städtischen und ländlichen Präferenzen und Strategien, wenn es darum geht, Landnutzung und deren Veränderung zu kontrollieren. Ländliche Interessen sind auf Lebenserhaltung, während städtische Interessen auf soziale Integration konzentriert sind. Die Ersteren suchen insbesondere, ihre Autonomie über die lokalen Waldressourcen zu bewahren und sind sich dementsprechend auch des kommunalen Besitzes, ihrer lokalen Nutz- und Mitwirkungsrechten sowie ihrer Verantwortungen bewusst. Die städtischen Akteure hingegen sehen den Wald als einen öffentlichen Raum, dessen Management sie fraglos an Forstexperten delegieren, solange sie freien Zugang zum Wald haben und der Wald relativ unverändert weiter besteht. Wir beobachten auch einen wichtigen Konflikt zwischen den Waldarbeitern und den Bauern, insbesondere bezüglich der Waldflächen, die über Weiden wachsen und bezüglich der Nutzung von Forst- und Landschaftsstraßen. Der Konflikt zeigt darüber hinaus auch die Distanz auf, die Bergbauern zur Waldarbeit eingenommen haben. Gründe hierfür sind zum einem, dass die Lukrativität der Forstwirtschaft nicht mehr gegeben ist (im besonderen in den Bergwäldern der Schweizer und Französischen Alpen, wo Arbeitskraft teuer ist), und zum anderen der Staat durch Subventionen und Schulung sowie durch Versicherungen (die auch privat sein können) zur Professionalisierung der Waldarbeit führen.

Für jeden der 21 waldbezogenen Interaktionsprozesse, die wir in den sechs Gemeinden identifiziert haben, wurden folgende Fragen gestellt:

- Wer sind die Initiatoren des Prozesses? Welche Akteure kontrollieren ihn? Wer sind die Teilnehmer?
- Welches sind die gemeinsamen Ziele des Prozesses, und auf welche Konflikte und Werte beziehen sie sich?
- Wie ist der Interaktionsprozess strukturiert, und welches sind die Strategien der verschiedenen Akteure?

Als Resultat dieser Analyse unterscheiden wir fünf Typen von kollektivem lokalem Handeln, nämlich 1) „*representative policy making*“ (repräsentative Politikformulierung), 2) „*public consultation*“ (öffentliche Konsultation), 3) „*public animation*“ (soziale Ereignisse), 4) „*common rights and resources management*“ (Gemeingut- und Ressourcenmanagement), und 5) „*self-defined contestation*“ (selbst definierter Widerstand). Jeder dieser Typen hat eine bestimmte Funktion und ist mehr oder weniger geeignet, Konflikte zu lösen und Werte zu generieren.

Mit sich verringerndem Reinertrag aus Waldwirtschaft haben die Gemeindebehörden die Tendenz, weniger in den Wald zu investieren und das Management den staatlichen Forstbetrieben zu überlassen. Die Studie zeigt jedoch, dass wo immer es Konflikte um die Waldnutzung gibt, die lokalen Behörden diese schlussendlich selbst zu lösen haben. Die Fallstudien zeigen weiter, dass weder die Förster noch die Gemeindebehörden lokale Bürgerinstitutionen, die eigentumsähnliche Rechte am Gemeinwald haben, aktiv fördern. Auch die Holzhandels- und Waldwirtschaftsunternehmen wollen die Nutzung und den Zugang der Bürger zu den Waldressourcen eher begrenzen. Dabei zeigt sich, dass eine Bürgernutzung – zum Beispiel von Brennholz – durchaus der Erhaltung des Bergwaldes dient. Generell kann beobachtet werden, dass die verschiedenen lokalen kollektiven Partizipationsprozesse bezüglich Gemeindeeigentum erodieren. Wir erklären dies zum Teil mit der nachweisbar zunehmenden Gewicht von staatlichen Waldinstitutionen, der Globalisierung der Ökonomie sowie lokalen kontextuellen Gegebenheiten.

Unter anderem schließen wir aus den empirischen Erhebungen, dass Partizipation im Management von Gemeindewald mit der internationalen Forstpolitik kaum im Einklang steht. Es bestehen zwar Interaktionsprozesse jedoch beinhalten diese selten öffentliche Diskussionen und die Möglichkeit Entscheidungen über die Gemeindewaldbewirtschaftung mit zu tragen. Die Analyse der lokalen Interaktionen zeigt auch, dass die informellen Beziehungen zwischen den Akteuren auf lokaler Ebene eine sehr wichtige Rolle spielen. Bei den meisten Partizipationsprozesse ist der Gemeindewald nur Teilthema und keinesfalls der wichtigste Anlass für kollektives Handeln. In den Gemeinden, wo der Wald ein wichtiger Teil des Territoriums einnimmt und noch eine ökonomische Bedeutung für die jeweilige Gemeinde hat, finden wir lokale waldbezogene Institutionen, deren Ziel es ist, eine gewisse Kontrolle über die Ressourcen der Gemeinde zu haben. In diesen Gemeinden (drei von sechs) fanden wir auch viele waldbezogene Konflikte und Werte. In den Gemeinden, in denen der Wald jedoch keine ökonomische Bedeutung mehr hat - dies betrifft vor allem Gemeinden, deren Ökonomie maßgeblich im tertiären Sektor begründet liegt (insbesondere Tourismus) - fanden wir weniger waldbezogene kollektive Interaktionen. Konflikte, die sich auf die Reinertragskrise der Waldwirtschaft beziehen, sind in den Augen der Akteure ohne Zweifel wichtig. Allerdings zeigt sich, dass nur wenige lokale Institutionen versuchen, diesen Problemen wirklich entgegen zu wirken. Es ist, als ob die lokalen Akteure sich gegenüber diesen Problemen ohnmächtig fühlen. In den Gemeinden, wo es viele Interaktionen zwischen den Förstern, den Behörden und den Einwohnern gibt, fanden wir durchaus eine soziale Befähigung, problemorientierte Lösungsansätze zu entwickeln. In den drei von uns untersuchten Gemeinden, die solche Institutionen haben, sind Akteure des tertiären und sekundären Sektors sowie Jugendliche und Frauen höchst selten beteiligt. Doch bei wichtigen Konflikten sind diese Akteure durchaus sehr widerstandsfähig, insbesondere wenn die Akteure das Gefühl haben, dass der Wald oder ihr Lebensraum gefährdet sind. Die lokalen Institutionen erweisen sich allerdings selten fähig, diese öffentlichen Konflikte (*public issues*) wirklich zu lösen.

Wald – so die Beobachtungen dieser Untersuchung – spielt eine wichtige Rolle für das Sicherheitsgefühl der lokalen Bevölkerung und stellt ein Symbol für ein gemeinsames überdauerndes Gut dar. Wald hat eine wichtige symbolische Bedeutung der Befriedigung von Integrationsbedürfnissen. Auch wenn der Gemeindewald für die Menschen ein gemeinsamer *Raum* ist, bedeutet dies nicht, dass es auch einen gemeinsamen *Ort* darstellt. Anhand der Theorie diskutieren wir schließlich auch, wie die Definition der Lokalität dieser Orte im Prozess der Globalisierung ebenso problematisch wird, wie die Definition der lokalen Akteure selbst.

Wir schließen unsere Arbeit mit Vorschlägen, die zum Ziel haben, das Engagement der lokalen Akteure für die Gemeindewälder und für die Waldwirtschaft zu stärken. In Anbetracht der Grenzen unseres theoretischen Rahmens, unserer Methodologie und unserer Resultate werden verfeinerte Forschungskonzepte vorgeschlagen, die dazu dienen sollen, lokale Waldinteraktionen und kollektives Handeln besser zu analysieren. Im Schlusskapitel werden schließlich handlungsorientierte Vorschläge unterbreitet für die im Wald Berufstätigen sowie für Akteure, die lokales soziales Handeln in Gemeindewäldern unterstützen wollen.

Introduction

Recent international and national forest policies promoting sustainable forest management assume and require the participation of local communities. It seems reasonable that before imposing methods for public participation upon local communities, we should inquire as to what kind of participation processes are already locally present?

The current study is an effort to understand how local people perceive and interact with their communally owned forests, and whether, why and how they take part in communal forestry. In respect to these questions, we examine actor, place and time based variable conditions.

For not predefining what constitutes participation at local levels, the selection of Communes was not based on a known presence of 'a participation process'. However, we wanted to maximize the probability of finding a relatively high interest of local actors in the forest situated near their living or working place. Accordingly, we selected Communes in a mountain area, with a high proportion of forest cover, and most of which being of communal ownership. Assuming that participation processes would vary according to the local actors and environments, we varied the type of actors interviewed according to their occupation, age, gender and institutional affiliations, and in addition, we selected locations for their varying socio-economic, demographic, land use, ecological and governance conditions (across six Communes, three regions and two countries). In order to understand how local people interacted with their communal forests, we conducted qualitative interviews with residents, workers and other actors.

Our objective is to understand *why* and *how* local actors interact in relation to communal forests, and *what* are the place-based social characteristics of these interaction processes in various economic and geographic alpine contexts. Accordingly, we observe and analyze on the basis of qualitative interviews conducted in a selection of six Communes:

- What are the local *social*, *geographical* and *institutional contexts* in which people are situating their interactions related to the forest?
- What are the *perceptions*, the *conflicts* and the *values* local actors express in relation to the uses, functions and the management of their Commune's forests?
- How do local actors *interact* - communicate, organize, invest and take part in collective actions that have some relation with their communal forests?

Some preliminary hypothetical propositions have oriented our entry in the research and interviews:

- Participation at local levels tends to be disconnected from policies furthering participation at higher institutional levels;
- The main reasons motivating stakeholders to initiate or get involved in participatory processes are the articulation, the resolution or avoidance of conflicts;
- Stakeholders involved in participatory forestry at local levels integrate forests in the broader landscape with other land uses and values;
- Participation and social interactions in relation with communal forests is more or less formally institutionalized, it varies with the actors and with the contexts, according to the local socio-economic, geographic and institutional historic conditions.

The theoretical perspective for this research draws on social action theories reflecting upon social agency and social structures. According to Colin Hay (1995), for any theory explaining social, political or economic causal relationships there are some underlying assumptions about agency or the relative autonomy of actors (or agents) and the institutional context (structures) to their

interactions. Social scientists are usually inclined to stress the importance of either one of them – agency or structure. We chose as the main inspiration for our theoretical perspective Anthony Giddens' structuration theory, because he holds in balance agency and structure through a dialectical dynamic (1981, 1984, 1990), as two inseparable sides of a coin, since there cannot be any agency without structure and structure needs agency to be produced reproduced and changed. We consider participation to be collective agency, whereby social actors participating in policy-making, natural resources management and other cultural interactions organize to act for a shared objective, which consists in producing new, changing or reproducing existing social structures, or in other words some institutions in the general sense of patterns of social practices. This general theoretical perspective helps us to analyse the institutional contexts, which structures - constrains and enables - agency or participation, and to analyse how various actors - in more or less collective and organized forms - use and change these structures by acting according to their objectives. The theory and methodology of Michel Crozier and Friedberg (1977) gives us further tools for analysing the dynamics of power relations that intrinsically constitute agency. For Crozier and Friedberg, power is built in social relationships and rests on the actor's margin of free choice in defining objectives and strategies (depending on his skills and resources), its corollary being the uncertainty about how other actors' will act and what will be necessarily partly contingent effects of their combined actions.

In order to explain the motivations and the effects of collective action we found it useful to draw also on social conflict theories – in particular the work of Lewis Coser (1956), whose understanding of how conflicts contribute to the structuring of collective action through formation and adaptation of group identities and boundaries.

The background to this research is the wide policy and literature production related with participation in natural resources management, which in the context of forest policy making combines objectives aimed in general at sustainable development (for redressing social inequities and conserving options for future generations), and in particular at sustaining forests (for reversing deforestation and forest degradation). The assumption of related policies is that sustainable forest management requires the participation of stakeholders in general and local communities in particular.

Considerable research and literature has been produced on the subject of local participation in forest and other natural resources management in the context of rural regions of lower income countries in particular. However, in the context of rapidly urbanizing regions and of higher income countries, where forest management has been largely institutionalised and implemented by State agencies, local actors' interactions and participation in forestry at the micro or local level, especially when not part of a governmental process, are little researched and recognized.

The regional and local focus of our inquiry is a rapidly urbanizing alpine region illustrating profound transformation in forest uses, values and institutions. While until thirty years ago alpine economies largely rested on their forest resources for communal revenue, local jobs, subsistence and income opportunities, and developed complex local institutions for the management of these resources they quite intensely depended on, they see nowadays their timber devalued to the point that they des-invest from their forest and the institutions meant to manage their resources. Indeed, the resulting changes in forest perceptions, values and conflicts are changing local actors' involvement in forest management.

In order to observe and analyze these changes, we had to approach the very "local people" who have experienced them in their lives, in places for which forests are an important part of local territory and have therefore probably played some important social role in the local history. We

have selected a range of alpine Communes across Haute-Savoie in France and the cantons of Vaud and Valais in Switzerland that have an above average proportion of their territory under forest cover and most of which is communally owned. We focused our field research and analysis on six Communes, three in France and three in Switzerland, situated in varied but comparable socio-economic and geographic conditions.

A qualitative research methodology is appropriate, since we are interested in characterizing locally situated social interactions in relation with communal forests – without defining them “a-priori”. Except in a section of the conclusion considering some forest policy implications of our results, we do not take a normative position regarding whether, when and where participation *should* take place, but rather we observe and analyze how it *does* takes place, who takes part (and who does not), where and under what conditions people interact with one another regarding the communal forests, and what forces are affecting how people interact regarding forests. Our choices of theoretical concepts, of interviewing methods and data analysis all aim at getting close to the local actors’ own perspectives about their communal forests -- understanding how they live and work near or in the forest, how they value or construct a meaning for their “places” and how they interact formally and informally when using, managing, representing or celebrating them. To best suit this exploration of situated social practices, this research is based on a *grounded theory* type of methodology (Glaser and Strauss, 1967; Strauss and Corbin 1990), with research propositions induced on the basis of a qualitative data analysis drawn from the text analysis of sixty five semi-structured interviews, conducted in six Communes, with local actors of varied occupations, gender, age and local organizational affiliations.

Chapter I.

Expanding our understanding of political ‘participation’

A. Participation in the context of democratic policy making

B. Various agents’ interests in participatory natural resources management

C. The blurred line between normative and descriptive research on participation

In this chapter we will present and discuss social theories mostly related to a policy-making oriented interpretation of the concept of “participation”. We use this section for setting the democratic policy models and critical insights thereof, from which the concept of participation originates, in order to conclude the section by demarcating our own more sociological approach to the concept. The discussion should explain why such an approach helps addressing some questions left unattended by the policy theories.

A. Participation in the context of democratic policy making

The concept of participation is intrinsically related to ideas of democracy as a form of governing and developing state institutions: the French poet Alphonse Lamartine (1790-1869) declared that:

“Democracy is an equal right to participation, an equal entitlement to the deliberation of laws and of the government of the nation.”¹

Participation in government, as well as in governance (including in non-state led or multiple-stakeholder based policy making and collective action), can be direct – involving the participant directly in the interaction process – or it can be indirect – the participant nominating a representative who will take part in the process while representing the constituency that has nominated her or him. Direct participation and representative participation complete each other – because at some point even the representatives must be elected, and this more or less formally at whatever governance levels. Without participation there is no democratic legitimacy of the governance authority. Lamartine mentions two other key elements of participation:

Entitlement for granting the right to people to participate

Deliberation for participants to discuss options and decide about a preferred course of action

Lamartine does not explicate the institutional conditions for political participation, however participation presupposes social structures (rights, social capacity, shared beliefs) all providing a certain level of trust without which people do not engage:

- A right generally accepted as fair and equitable defining who can take part in what ways;
- Access to relevant information, the capacity of the participants to understand the information and to communicate their ideas about it;
- The capacity of participants to express and process conflicting interests and views, and to deal with uncertainty (internal and external to the process);
- Trust that participation enables social actors to challenge established structures, for changing or maintaining them;
- Confidence that decisions are not taken prior to or independently from the process, that the margin of freedom and degree of influence of participants is worth their investment;
- An assumption that the more participants can agree on an option, the better this collectively generated option is likely to be, at least for all taking part in the process;
- A shared belief that non-participation entails the risk of poor governance (illegitimate and ineffective in meeting social demands, while addressing environmental and institutional constraints, orienting and motivating collective action).

¹ “La démocratie est la participation à droit égal, à titre égal à la délibération des lois et au gouvernement de la nation” Lamartine 1790-1869 cit. in Grand Robert

Participation forms and structures the authority and then – once the authority institutionalised and imposing its structure on social choices – participation constitutes the relation between an authority and its constituency. In democratic systems, participation processes have as function to keep the authority and its constituency in relation over time, without which the authority loses its legitimacy and in a democratic system, dissolves. While the actors and the institutions of participation change over time, the functions and the conditions of participation remain relatively unchanged between the historical context of Lamartine and nowadays' democracies.

For Schattschneider, democracy “*begins as an act of imagination about people*”. Democracy originally meaning “government by the people” is a moral system assuming equality “[men are] *equal in the one dimension that counts: each is a human being, infinitely precious because he is human*”. Schattschneider beware of ideal representations of democracy which assume roles for the public it cannot play, that “*democracy was made for the people, not the people for democracy*” (id: 132) and he proposes in this line the following definition:

“Democracy is a competitive political system in which competing leaders and organizations define the alternatives of public policy in such a way that the public can participate in the decision-making process.”

(Schattschneider 1960:138)

This definition says Schattschneider has the merit to be descriptive, operational, rather than be the mirror of the political scientists' illusions. This is why he entitled his book “The Semisovereign People”. Schattschneider shows that democratic systems are built on conflict and the organization of conflict “*the socialization of conflicts is the essential democratic process*” (: 138); the most fundamental of democracy's paradoxes being the “*majority rule and minority rights*”. (D. Adamany, Preface to Schattschneider 1960: xiii). One of the main problem of democracies – especially in large scale territorial organization is indeed issues of representation – of how directly people can be involved in not only saying yes or no to a predefined question but can actually help defining the issues of interest:

“As a matter of fact, the definition of the alternatives is the supreme instrument of power. (...) He who determines what politics is about runs the country because the definition of the alternatives is the choice of conflicts, and the choice of conflicts allocates power

(Schattschneider 1960: 66)

Further building on democratic principles of governance, one century later, the Brundtland Commission stipulates that the concept of participation is related to that of “progress” and “sustainable development”, because giving people the right to information, to be consulted and to participate in decision-making on matters affecting the environment they depend upon, furthers both the protection of the environment and the well being of the people:

“Progress will also be facilitated by recognition of, for example, the right of individuals to know and have access to current information on the state of the environment and natural resources, the right to be consulted and to participate in decision-making on activities likely to have a significant effect on the environment and the right to legal remedies and redress for those whose health or environment has been or may be seriously affected.”

(Brundtland Commission 1987: 300).

The belief presented in this report is that by institutionalizing “public participation”, development will be achieved or and sustained. The assumption is that the public, if allowed to participate, will defend both environmental protection and social well being, knowing that both are intrinsically related. This position is also defended by proponents of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus, 1998), signed by the European Union and seventeen member states.

The public participation role in democracies is well summarized by Yankelovich (1991) and adapted by Margaret Shannon to environmental governance situations – where it is not only governmental instances that are to be accountable but also other parties whose actions concern the public interest and where scientific expertise can contribute in defining the relations by which this interest may be of concern:

“The public has three essential duties in a democracy: public deliberation, coming to public judgment, and assuring public accountability of government actions’ (Yankelovich 1991). Governance institutions need to ensure that these public duties are met. Within the context of environmental governance, the role of science adds another dimension to these duties.”

(Shannon 1999: 37)

One of the biggest problems of democracies is the lack of willingness or capacity on the part of the public to participate. The model of governance, which is democracy, and the public willingness and capacity to participate for making the ideal true, entails according to Schattschneider political scholars’ illusion, because they do not recognize *“the don’t knows”*. However democracy is fundamentally based on the recognition of the don’t know factor:

“There is no escape from the problem of ignorance, because nobody knows enough to run the government. (...) Even an expert is a person who chooses to be ignorant about many things so that he may know all about one.

(Schattschneider 1960: 133)

Therefore comes the necessity of *“leadership, organization, systems of responsibility and confidence”* (id: 135) – through which we can also rely on others’ capacity.

However, with modernization trust in expertise and authorities tend to erode and many social actors among “the public” recon the need to reinvest into defining and defending the “public interest”. The fact that no decision is proved to be safe or optimal also speaks for more decentralized decision-making power, whereby it is the actors most affected by the impacts of decisions who should control the decisions, even though they should be informed and advised by more distant actors and experiences. This has also been increasingly recognized in relation with development and sometimes also with conservation projects which decisions and investment flow from distant actors while they have great impacts on local populations and environments.

Here opens a vast debate about the potentials and limits of more or less direct or representative forms of participation, to which correspond various representations of who is the public, what are the legitimate issues and competencies to inform decisions. The relevance of a more or less direct public involvement in deliberation and decision depends, says M. Shannon, on the kind of issues as well as on the relative certainty, risk, and the level of consensus on values and purposes associated with the decision.

“These theories are not necessarily mutually exclusive, rather both models of participation have advantages that apply in different moments of the policy planning process.”

(Shannon 1999:8)

In fact there are various combinations between these approaches such as the “incremental communicative model” of forest policy making proposed by Gérard Buttoud and Irina Yunusova (2000), whereby decisions and their alternatives are not imposed by the state forest agency but generated by the communication process taking place among the multiple stakeholders – owning, using and valuing the forest. Accordingly, the forest agency’s role is mainly to facilitate the communication process, the negotiation of a compromise in consensus, in order to develop an integrated multipurpose forest management plan.

Our research is to a great extent situated upstream from the formation of public issues – from public participation – close to the place where people interact in their daily lives with the forest and where values and conflicts emerge – prior to becoming of public interest. We need to clear here not just how local actors take part in forestry but why and by which social interaction processes and in which social and environmental contexts they engage in certain ways. In some places there may be many conflicts expressed by local actors but none may be recognized as a public issue, none may lead to the organization of an interest group formulating and publicizing the conflict. Or there may be such special interest group organized, but it may not represent some other actors' concerns or private conflicts, yet undefined in terms of interests or public issues (Schattschneider 1960, Bouriaud, 1999). There are in fact various forms of participation that do more or less enable the expression and definition of these yet un-crystallized – hence un-organized interests. Deliberative forms of participation that do not predetermine issues and alternatives of decisions can enable actors to define their respective and their more or less shared interests by fostering interactions and learning among participants (Robert Reich 1985).

B. Various agents' interests in participatory natural resources management

Since after world war II, and in particular since the social movements of the sixties (civil rights, anti-war (Vietnam and Korea), and anti-nuclear movements), public agencies in the United States have been pressed to develop participatory policy making procedures. This trend starting from the mid sixties onward was particularly developed in water, forest and environmental policy-making, as well as for the creation of preserved areas on federal public lands.

“By the end of the 1970s, 80% of all federal programs and granting authorities required some form of public participation”

(ACIR 1979, in Shannon 1999: 9)

In this respect, the National Environmental Policy Act of 1970 became an example for much environmental law internationally and abroad. During the 1970s and 1980s, participatory forms of natural resources management have been experienced and discussed to a large extent in the contexts of developing countries and rural areas development (Uphoff, 1986, Chambers, Saxena, Shah, 1991). During the nineties, this interest was approached at a global level in various international forest-related policy making fora (UNIPF and UNIFF, CBD, etc.²) And following shortly thereafter, these international forest policy making processes, efforts have also been developed in European countries, where we find since the later nineties an enhanced focus in policy and academic work on participation in natural resource management and forestry (FAO-ECE-ILO Timber Committee 2000, Jeanrenaud 2001, Poffenberger 1998, Shannon 1999).

The quite recent interest European forestry institutions have demonstrated in participatory processes applied to forest resource management is worded in the resolutions of the Third Ministerial Conference on the Protection of Forests in Europe (Lisbon, 1998), in particular in Resolution L1 “*People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management*”³. A policy group has been created to further define and promote the intentions of this resolution: the FAO/ECE/ILO Joint Committee Team of Specialists on Participation in Forestry. This team published the results of its reflections in a report entitled

² Inter-governmental Forum on Forests (IFF), National Forest Programs (NFPs), Convention on Biological Diversity (CBD)

³ Next to public participation partnerships are explicitly promoted in the resolution L1 of the European Ministerial Conference (1998), however still in undifferentiated terms:

“The interaction between forestry and society in general, should be promoted through partnerships, and be strengthened by raising general awareness of the concept of sustainable forest management and the role of forests and forestry in sustainable development. Therefore an adequate level of participation, education, public relations and transparency in forestry is needed.” (Part 1, paragraph 1)

“Public Participation in Forestry in Europe and North America” (2000). Other work on participation related to forest management in a European context has been supported by the European Union in relation to the development of National Forest Programmes (Cost Action E19)⁴. The World Conservation Union (IUCN) has also published a *“European Profile on Community Involvement in Forest Management”* (2001). This type of collectively produced literature is the product of debates involving representatives from large governmental and non-governmental organizations, involving policy makers, administrators (i.e. Team of Specialists on Participation in Forestry), professionals active in the development of forest programmes and forestry related research. Even though interest has been growing in the last decade in European contexts, there remains relatively little research based on comparative case studies on participation at local levels and few policies aimed at enhancing participation at the very local level. The short review of the history of the institutionalization of the concept of participation in forestry just presented, should not give the idea that participation is associated to quite the same meanings by the different (institutionalized) agents producing them. We notice in particular that these various agents have different representations of who “should” participate, about what type of issues and how. This is why we will in this section illustrate the variations in discourses on participation according to six main types of organized actors that have institutionalized participation policy:

- Rural development donors:
- Inter-governmental forest policy makers
- National and regional administrators
- Large environmental organizations
- Forest workers unions
- Indigenous and local communities’ associations

Rural development donor’s perspective: oriented at local communities

The concept of participation in relation to development - mostly centered in rural areas of developing countries – has been to a large extent elaborated by donors’ agencies. Accordingly, the “empowerment” of local actors and in particular the least advantaged thereof should be a means to alleviate poverty, to achieve social justice. The Peasants Charter of FAO in 1981 illustrates this approach:

“Participation by the people in the institutions and systems which govern their lives is a basic human right and also essential for realignment of political power in favour of disadvantaged groups and for social and economic development. Rural development strategies can realise their full potential only through the motivation and active involvement and organisation at the grassroots level of rural people, with special emphasis on the least advantaged, in conceptualising and designing policies and programmes and in creating administrative social and economic institutions, including cooperative and other voluntary forms of organisation for implementing and evaluating them”⁵.

However, this empowerment approach is to some extent top down and legitimizing of the rural development agencies, who are to “help” the disadvantaged groups get involved in policy-making, management and economic institutions. Who the actors are that define the objectives and the structures of the social interaction process remains unclear. In this context, the concept of participation is used as a means to minimize local people’s resistance and sabotage; -- development

⁴ COST Action E19 (2003), “National Forest Programmes in a European Context”. European Commission.

⁵. UNDP 1993, cit in Rowlands, Jo (1997), “Questioning Empowerment – Working with Women, in Honduras”, Oxfam, UK.

agencies are systematically confronted with this challenge -- and a way to legitimize their programs for their Northern constituencies and financial donors.

Some rural development professionals tried to reverse this approach to a more bottom up one. Robert Chambers (1991), David Korten (1980 et 1990), Marc Poffenberger (1996, 2000) are some of the key authors, who have promoted this approach by stressing in particular the social capacity potential of local communities in the self-governed management of the natural resources they depend upon. They are barely using the concept of “participation” for these local natural resource management institutions, which are institutions that function like common property regimes (Berkes 1989, Ostrom, 1999) or community based natural resources management systems in which participants collectively allocate access and use rights as well as management responsibilities.

Inter-governmental forest policy-makers’ participation perspective: oriented at major groups

Intergovernmental forest policy-making agencies quite often use the concept of participation, but mostly without defining it. This vagueness avoids raising the conflictive question of authority; it serves a diplomatic strategy for helping to reach consensus among the states keen to protect their sovereignty and to define participation in their own institutional terms⁶. Considering the history of most international forest policies since Rio (1992), we note that there is a tendency to reify the list of actors invited to “participate”. In Agenda 21 and the Forest Principles (1992), the following actors are explicitly named to take part:

“Governments should promote and provide opportunities for the participation of interested parties, including local communities and indigenous people, industries, labour, non-governmental organizations, and individuals, forest dwellers and women, in the development, implementation and planning of national forest policies” (2d).

A decade or two later, the Intergovernmental Panel on Forests (IPF) and the following Intergovernmental Forum on Forests (IFF) mention a shorter list of actors who should be considered as participants. They continue mentioning the “non-governmental organizations”, “local communities”, “indigenous people” – but add two more abstract categories “major groups”, including the “private sector”. The actors losing visibility were the actors who were relatively little organized at international levels - forest dwellers, forest workers, “individuals” and women. Concerning women, they were not mentioned at all in the IPF (4), but added by the Chairman at the conclusion of the negotiation process of the IPF report and integrated in the introduction of that report, mentioning “women” as if they constituted one homogenous stakeholder group. However, the following IFF process calls for attention to the specific situation of women in rural areas of developing countries who depend directly on wood:

“Focused attention should be given to gender mainstreaming related to capacity-building and technology transfer, particularly in the context of wood energy use, tree cultivation for household energy use, sustainable forest management and tenure, and ownership of forests and lands designated for afforestation. Appropriate technologies for the use of wood as an energy source at the rural household level have a great potential to enhance the health and socio-economic status of women in many developing countries.”

(IFF, 4th. Session, 2000, para 55)

With the continuous institutionalization of international forest policy-making, participation processes tend to cater to the most organized actors. The United Nations Forum on Forest channels participation into *multi-stakeholder dialogue* sessions running parallel to UNFF intergovernmental sessions, and increasingly lumps the actors into *major groups* categories.

⁶ Text related to participation is generally assorted to terms alike “as appropriate” to leave this space to sovereign interpretation and implementation open

In the reports of the IPF and IFF, participation is mostly used in terms of a policy favouring decentralization, while at the same time a means to increase acceptance for and the efficacy of national forest programmes. The participation discourse has become a major strategy for governments to legitimize their national administrations, by giving them the function of developing national forest programmes. It helped raising the acceptance of these programmes and the administrative agencies carrying them forth through implementation processes as well as among regional and local governments and non-governmental actors. The IPF – in the chapter on national forest programs states:

“The Panel emphasizes a number of specific elements that need to be considered during the development and implementation of national forest programmes, in particular the need for appropriate participatory mechanisms to involve all interested parties; decentralization, where applicable, and empowerment of regional and local government structures, consistent with the constitutional and legal frameworks of each country, recognition and respect for customary and traditional rights of, inter alia, indigenous people, local communities, forest dwellers and forest owners, secure land tenure arrangements, and the establishment of effective coordination mechanisms and conflict-resolution schemes.”

(IPF 4, 1997, para 9)

For the IPF, decentralization is mostly understood as an empowerment of local and regional governments, while the Convention on Biodiversity, in the definition of its ecosystem approach, extends decentralization to *all* stakeholders. Then, it also recognizes the particular importance of involving the stakeholders who are closest to the resource base in order to balance their specific interests with the wider public interest.

“Decentralized systems may lead to greater efficiency, effectiveness, and equity. Management should involve all stakeholders and balance local interests with the wider public interest. The closer management is to the ecosystem, the greater the responsibility, ownership, accountability, participation, and use of local knowledge (...).

(Convention on Biological Diversity, COP V/6, May 2000).

For the Convention on Biodiversity the ecosystem approach is not to be defined once and for all in technical terms but rests on various cultural interpretations, on *societal choices*:

Different sectors of society view ecosystems in terms of their own economic, cultural, and societal needs. Indigenous peoples and other local communities living on the land are important stakeholders and their rights and interests should be recognized. Both cultural and biological diversity are central components of the ecosystem approach (...). Societal choices should be expressed as clearly as possible.”

(Convention on Biological Diversity, COP V/6, May 2000).

A country led initiative (by Indonesia and Switzerland) contributing to Inter-governmental Forum on Forests 4 noted the tension between these various perspectives on decentralization in forestry:

*“The workshop distinguished between democratic decentralization and administrative decentralization, agreeing that the former was more likely to lead to beneficial outcomes. Democratic decentralization is however rarely implemented; substantial decision-making power, resources and benefits from forests are still centralized; and those receiving new authority are often neither representative nor accountable. Decentralization in the forest sector should begin by working **with** local people and by building on their institutions. Representative and accountable local governments may be the most appropriate interlocutors for this process.”* (CIFOR and the Swiss Intercooperation, Item 9, p. 4, advanced version, 2004).

The citation above is to some extent contradictory or incomplete in the reasoning, we do not know who are the local people and what are “their institutions” but we know for sure that the authors opt at the end for local governments as the most legitimate actor to whom resource management should

be decentralized to – while saying that it was preferable if there were representative and accountable. Our thesis is to a large extent exploring this contradiction. We can explain the contradiction or lack of clarity in the above citation by who were the various actors taking part in this latter forum, it involved indeed representatives from local associations that did not share the state centered administrative approach of some other participants, the initiators and facilitators of the forum. The juxtaposition of these various actors' strategies generates such compromises; the meaning of the agreed text becomes then rather cluttered.

During the decade following the completion of the UNIPF/IFF reports and the CBD convention, many countries have revised their forest law, integrating also some proposals relatively to "participation". However, these do not promote participation at the local level. In Switzerland, for example, the new forest law (1993) requires participatory planning at regional levels, that is, above the forest management unit level. This barrier to local level participation once the international forest policies imported at national levels, is in part due to the resistance of forest owners – private forest owners in particular. In the Pan-European conference on sustainable forest management, private forest owners have resisted the new Resolution L1 "People, Forests and Forestry – Enhancement of Socio-Economic Aspects of Sustainable Forest Management" in its proposals related to participation and have succeeded to limit it to decision levels, which are above the enterprise or forest property level. Private forest owners while negotiating over this resolution defended that participation should be limited to *policy or program* making and forest *planning*, but should exclude local forest *management*, which would be the ultimate responsibility of the forest owner. The concern of forest owners is that public participation enables the public to raise demands but leaves the cost and the responsibility of implementation with the owners. Criterion 6 of the Montreal Process is implicitly more open to participation at the management level – its last indicator to monitor public participation in a country is formulated as follows: "The existence of information means to implement the policy framework and the capacity to enhance public participation in decision-making processes related to implementation of forest policy." Resolution L1, in contrast mentions participation only in relation to policies and programs.

The national administrations' perspective on participation: oriented at the public

Following the first Conference on the Protection of forests in Europe (1990) and the second conference on Environment and Development in Rio (1992), governments from all countries (more or less developed) had committed to take home the concepts of sustainable development, sustainable natural resource management – including of participation. Countries in the industrialized or tertiarized countries, even though their democracies have been tightly institutionalized, have also reconsidered their forest institutions – exploring the benefits and costs of participatory management. The benefits became even more obvious for the forest administrations of these countries, as during the eighties they tended to become marginalized politically and economically. Participation of multiple stakeholders appeared then as a means to both legitimize their existence vis à vis other administrative services and the public in general. Forest agencies of higher income countries had to face the fact that the globalized timber market was putting them – and their mountain areas in particular - in a less competitive position, mainly due to their higher production costs. Furthermore industrialized and tertiarized countries have seen their social demands on forests change (with the increasing environmental and leisure oriented values). Participatory management has then been recognized to help forest agencies in adapting to these new demands, while providing them with enhanced legitimacy.

To illustrate this administrative approach we draw mostly on the ECE/ILO/FAO, document entitled "Public Participation in forestry in Europe and North America", which is a follow up to the Third Ministerial Conference for the Protection of Forests in Europe (Lisbon 1998). The document has

been prepared through a two year long process of exchange among 23 members from 13 countries – mostly from governmental administrations and some non-governmental representatives (one from the World Wildlife Fund and the World Conservation Union, one from the European Confederation of Forest Owners, and one from the International Federation of Buildings and Wood Workers).

Distinguishing “public participation” from other ways in which people in the forestry sector can interact with the public, the Team provided the following definition:

« Public participation is a voluntary process whereby people, individually or through organized groups, can exchange information, express opinions and articulate interests, and have the potential to influence decisions or the outcome of the matter at hand. »

(id: 9).

The Team further characterizes public participation in forestry as a process which:

is inclusive and voluntary regarding participation, complementary to legal requirements cannot conflict with legal provisions in force, in particular with ownership and user rights, is fair and transparent to all participants and follows agreed basic rules; is based on participants acting in good faith; does not guarantee or predetermine what the outcome will be.

(summarized from para 20: 9)

The Team specifies what it means by “public” in relation to the concept of “public participation”:

“The public is a vast and heterogeneous group of people or stakeholders, organized or not, who are concerned by a specific problem or issue and who should be given the opportunity to take part in discussions and to influence and/or jointly make decisions regarding the issue at hand.”

(id: para 70, 31)

Accordingly the public is mostly self-defined – however the articulation of the organized and the non-organized participants poses problem as in a public participation approach – all participants whether organized or not have in principle equal rights to take part.

The report emphasizes state-led participation, and says that state forest agents have a special role to play because they serve publicly owned land, also because these forest domains are often of larger sizes than private land. The report does not specify the distinctiveness of participation in communally owned land (the Team did not include representatives of the Federation of the European Forest Communes or some related National Association).

In fact the administrative approach avoids to take a local actors perspective of fear to conflict with ownership rights. The team did not involve representatives from indigenous peoples, present in Northern Sweden and Finland, where forest related conflicts with forest owners’ associations have been quite important (around the issue of customary rights of reindeer grazing).

By organizing participation processes at regional or national levels only it misses to involve less organized stakeholders and fails to meet conflicts and values generated from place-based relations between locally situated actors and forests. Several case studies presented at the end of the report noted that the inputs from the public were often very specific and local in nature and could therefore not be accounted for in the regional planning processes. For the user councils in Denmark, T. Enggrob Boon, author of this case said:

“User councils cover too big areas to be really local, whereby the advantages of local networking are partly lost”. (id: 71)

“The potential to influence decisions” for participants to a public participation process – at the difference from partnership - does not imply that they are part of the actual decision-making process. Referring to Arnstein’s ladder on the levels of influence and control participants may have in a public participation process, Anne Hoover in a case study about the development of an urban forest plan involving public participation in the USA concludes: “we will never be in the citizen

control phase” (In FAO/ECE/ILO, 2000, 103). Case studies from other countries too show, that when forest administrations initiate a public participation process they stay in control of their organization, as well as of the ultimate decision-making stage.

In this administrative interpretation of participation – the objective is less empowerment of actors hitherto excluded from decision-making or access to resources but more a public relations exercise to legitimate and reinforce state forest agencies’ political, economic and organizational capacity.

Large environmental organizations: oriented at local communities and multiple stakeholders

The large environmental organizations that have had major land use impacts – with the creation of protected areas which in some countries cover 10 % or more of the territory – has spurred much conflicts with local communities livelihood interests in particular. In the nineties, these conflicts came to be more largely reported and indigenous and local communities associations to become more vocal about the impacts of exclusive conservation policies on their land use rights, their practices, lives and cultures. (Cadoret 1985; Ghimire and Pimbert 1997; Finger-Stich and Ghimire 1997; Peluso 1990, Jeanrenaud 2000, Colchester 1995, Borchert 2001.).

In a collective series of the Working Group on Community Involvement in Forest Management in European contexts, administrated by the World Conservation Union, Sally Jeanrenaud focuses on such participation processes in Western Europe and defines them as follows:

“There are numerous ways to define and understand patterns of involvement in forest management, but it usually means the ability of individuals or groups to influence and share control over initiatives and the decisions and resources which affect them.”

(Jeanrenaud 2001:8)

Graziella Borrini Feyerabend, in the context of collective research with the IUCN Collaborative Management Working Group, defines the process of building collaborative management institutions in terms linking rights to responsibilities:

“Co-management is a situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources.”

(Borrini-Feyerabend, et al. 2000 :1)

This approach is mostly oriented at involving primary stakeholders, to building the capacity of the actors most directly dependent on a resource to control collaboratively its management. This approach acknowledges the role of other actors, including forest administrations in supporting such institutions, but invite them to devolve at least part of their resource management authority to primary users.

Indigenous and local communities’ associations

At the first meeting of the IFF (in 1997) a group of non-governmental organizations started to compile cases and proposals for action to remedy the national and international underlying causes to deforestation and forest degradation. The resulting report lists four main types of causes. The first type of cause addresses “The non-recognition of the territorial rights of indigenous and other traditional peoples”. The other causes concern trade and consumption, international economic relations and financial flows, and the valuation of forest goods and services (p. 3). The report notes:

“The lack of empowerment and participation of local communities in decision over forest managed was identified as an underlying cause in many case studies, ranging from Austria, to Thailand.” (p. 5)

Indigenous peoples have organized internationally and followed all major inter-governmental forest and environmental policy making processes very closely. Their concerns are mostly recognition and respect of their human, political, socio-economic and cultural rights, including the right to self-determination and self-governance (International Alliance of Indigenous-Tribal Peoples of the Tropical Forest and International Work Group for Indigenous Affairs, undated)

There are also three other groups of organized actors that have organized themselves for requiring from major players governmental authorities, landowners and employers, as well as from major environmental organizations their own participation in decisions concerning their interests, these are forest workers unions, such as International Federation of Building and Wood Workers (Poschen, 2000, Strehlke 2003, Bowling 2000 in FAO/ECE/ILO: 43-45). Forest owners and forest enterprises, such as the Confederation of European Forest Owners, the regional, national and international Forest Owning Communes have also organized in interest groups in order to better access and influence governmental policy-making at various institutional levels (Fédération Nationale des Communes Forestières de France, 1990, Zingari, 1998, Finger-Stich in Jeanrenaud (ed.), 2001).

All these organized actors perspective on what we could call mainly political participation, are aimed at influencing policy making processes mostly at international or national levels. We have presented them in order to distinguish the quite different focus of our own research on local actors' involvement in Alpine contexts. Even though the alpine actors may express some concerns that are more or less echoed in the claims of the organized actors presented above, these are not or barely organized in terms of political interests. This research however consists in describing these particular alpine actors' perceptions and modes of involvement without pre-defining them.

The account of the various organized actors perspectives on political participation related to natural resources and forest management shows that most of it is advocacy literature. Below we will show that even scholars' literature on participation is normative – aimed at influencing policy-making or – taking this normative stance for granted – technical, for assisting field level professionals in applying participation methods.

C. The blurred line between normative and descriptive research on participation

Why focus on the participation of local actors in communal mountain forest management? Are we repeating a long-lived myth in which the *forest*, the *mountain*, *local communities* are defined by outsiders' imbued with a romantic perspective? Foresters have largely contributed to mountain region's politics marginalizing local populations' self-governance capacities⁷ by considering mountain people as a threat to the mountain forest and its protection function in particular (Nougarède et.al. 1985). From their perspective, it is mountain people that have to be managed, and their forest resources uses controlled, in order to ensure the common good and security of the nation-state. Ever since forestry has been ruled and administrated by the State and managed by its scientific and technological institutions, there have been conflicts between the local people (with their own practices, institutions and knowledge) and forestry experts (Kalaora and Savoye, 1985). Already the spirit of the 18 royal ordinances until the one of Colbert (1669) was to impose a vision of the forest as a precious and noble resource, which management needed to be rationalized for the nation's common good, be it at the expense of local subsistence related usages. Gradually, forestry was to be mastered by engineers formed in national schools. The French Forest Code established in 1827 curtailed even more decisively customary rights and submitted communal forests to the administrative control of the State. The 1876 Swiss Forestry Act, likewise, curtailed ownership

⁷ We use the term self-governance in the sense of E. Ostrom (1999)

rights for the interests of the broader society. During this period of consolidation of the States, the late 18th and 19th centuries, there was dissent among foresters about the growing State-centered, inward-sectorally based focus, and top-down forest management approaches that they observed dispossessing local populations from their resources and self-governance capacity. There were important debates surrounding the first forest regulations and codes, for example, the Forest Regime of 1827 in France and the Forestry Act of 1876 in Switzerland⁸. Dissenters like Felix Buriot in France (Gerbeaux, 1994)⁹ and Karl Kasthofer in Switzerland (Küchli, 1997), who valued the local institutions and practical know-how of agro-pastoral mountain people, have, since the beginning of the 19th century, raised the importance of political and economic participation of local people in the management of natural resources. Bernard Kalaora, and A Savoye (1985) tracing back the history of these debates refer to the deliberations between the “forest sociologists” and the “State-oriented foresters”. Our purpose is not to feed these debates, but to note that they vary in their respective assumptions of *who* are the local actors, *what* are their interests, and *how* legitimate their local institutions are in managing the forest resources, and in this latter respect what is the role of the State in granting and controlling their management authority. *Indeed*, “participation” is – as Nici Nelson and Susan Wright (1995) say – a ‘*porte-manteau concept*’ (coat hanger concept), which different actors define according to their own values, interests, and analytical frameworks, changing along institutional and historical contexts.

Research on participation from a policy standing-point in relation with sustainable forest management evolved mostly since the nineties (Romm in Aplet et al. 1993; Shannon 2002; Buttoud 2000; Schanz 1999; Enggrob Boon 1999; Ostrom 1999) and with a political-economy approach (Ghimire and Barraclough 1990, Utting 1993). They were inspired - more or less preceded or contemporaneous – to case-study based research done with a more sociological and anthropological focus in the context of rural economies in developing countries (Fortmann and Bruce 1988; Dasgupta 1988, Korten 1990, Bromley 1992, Cernea 1992). In relation with donor agencies, these scholars developed also a more practitioners’ oriented literature, proposing technical tools for implementing participatory approaches in the context of natural resources and forest management (D’Arcy Davis-Case 1989; Molnar 1989; Fischer 1995; Arnold 1998; Jackson and Ingles 1998, Grazia Borrini Feyerabend 2000).

Across all this varied body of literature the various forms of “participation” (related to natural resource management or not) are most often evaluated according to an analysis of power relations, in particular the relative influence of participants in decision-making (Arnstein 1969; Held 1987; Lindner 1990; Pimbert and Pretty 1997; Smith and Beazley 2000). Sherry Arnstein (1969), for instance, evaluates the intensity of participants’ involvement in decision-making along a ladder of eight steps ranging from “manipulation” to the full devolution of decision-making power or “citizens’ control”.¹⁰ Likewise evaluating intensity, M. Pimbert and J. Pretty (1997) propose a gradation ranging over 7 stages from “passive participation” to “self-mobilization”.¹¹ In fact, evaluative typologies of participation often consider as central criteria the way the process manages to change

⁸ Loi fédérale concernant la haute surveillance de la Confédération sur la police des forêts dans les régions élevées.

⁹ Françoise Gerbeaux (1994), *La montagne en politique*, L’Harmattan, Paris.

¹⁰ S. Arnstein distinguishes 8 grades of power given to participants (from least to most power): 1-manipulation, 2-therapy, 3-informing, 4-consultation, 5-placation, 6-partnership, 7-delegated power, 8-citizen control.

¹¹ M. Pimbert and J. Pretty from 1-passive participation, to 2-participation in informing, 3-participation by consultation, 4-participation of material incentives, 5-functional participation (pre-determined objectives), 6-interactive participation (collective analysis and definition of objectives), 7-self-mobilized participation.

the power structures, displacing the locus of decision-making towards those hitherto excluded from it.

“Participation is the organised efforts to increase control over resources and regulative institutions in given social situations on the part of groups and movements of those hitherto excluded from such control.”

(Pearse and Stiefel 1979, In Barraclough and Ghimire, 1990: 22)

For Sarah White “participation” is a political concept: it means different things to different actors, engaged at different institutional levels and interacting in varying governance contexts (1996). On an actor-based analysis, she evaluates then different grades of power, and corresponding types of participation. The form of participation conferring least power of influence is the *nominal* form (where the interest of the top is legitimation, for the bottom it is inclusion). The highest degree of influence – the *transformative* form - corresponds to an interest by the top and by the bottom of empowerment of the poor, as both a means and an end of the process (p.7).¹²

Tanquerel (1988, p.28) distinguishes *democratic participation* processes “*instituting a sharing of competencies between originally equal parties*” from “*hierarchical participation ... during which the relationships among the actors are organised according to a main or initial decision-maker*”. Along the same division, W. Linder et al. (1992) distinguishes the “*perspective of the population*” from the one of “*the administration*”: the former seeking to enhance their *influence* on decisions, to *express conflicts* and to *emancipate*; while the latter respectively seek to reinforce their *legitimacy*, to *manage* conflicts, and to enhance *efficiency* of management.

Focusing on relations of power – participation is defined by its corollary, a lack or absence of participation. The concept of participation essentially reveals an unbalanced decision-making power, like does the other related term “consultation”, in the contrary to concepts like “partnerships” or “co-management”. According to Gérard Buttoud:

“To participate usually means to take part into debates or actions, which are mostly defined by others than yourself. As a consequence, participation is by essence a relative concept: one participates more or less. It does not mean by itself anything considering any kind of transfer or responsibilities, and even the access to decisions.”

(Buttoud 1999: 17)

Buttoud evaluates participation processes according to the actors’ relative control over the definition of issues and the decision-making during the participation process, G. Buttoud (2000) proposes to distinguish the *rationalist approach* - in which formally entitled decision-makers keep a quite exclusive control over decision-making – from the *incremental* type of *approach*, where decisions are induced out of interactions among various stakeholders seeking to find some compromise among multiple resources uses¹³.

For Tove Engroob Boon, it is also the communication process, which is fundamental to participation:

¹² The four types of participation W. White distinguishes are –1. *Nominal*, 2- *Instrumental*, 3- *Representative*, and 4- *Transformative participation*. Sarah White (1996), Depoliticising development: the uses and abuses of participation. Development in Practice, Volume 6, No. 1, February 1996.

¹³ In an earlier publication, Gérard Buttoud (1999) distinguishes three types of participation: 1- *Resource participation*; 2- *Functional participation* and 3- *Auto-mobilisation*. *Resource participation* corresponds to a utilitarian approach, often practiced by administrations as initiators of participation processes. Participation is then a form of consultation procedure, where the initiator is interested to obtain information from the people (input). While *functional participation* involves the participants in the decision-making process (participation in the input and the output of the process). In the third form of *auto-mobilization*, it is stakeholders whom themselves take the initiative of creating a public debate.

“(…) as interactions within a network of different interest groups or actors (…) participation should be conceptualised in a way that captures the dynamics of forestry that is the interaction on the borderline of what is considered as the forest sector and what is considered as society in general, between those considered ‘outside’ and those considered ‘inside’ forestry, between those considered decision-makers and those considered participants, and between actors and structure.”

(Tove Engroob Boon 1999: 49).

As we will further discuss in chapter II, power can also be evaluated as an enabling relation that is more or less shared among the participants. In particular the power to express one’s opinions, to learn from others’ and find solutions that none could have found alone. For Margaret Shannon, deliberative participation processes – whereby actors can communicate with each other - are capable of generating new enabling power; she defines such processes of “communicative action” as “generative politics”:

“By generative politics, I mean, the capacity to create new meaning, new resources, new social organizations, new values and new interests through public deliberation.”

(Shannon, 2002: 15).

To *evaluate* a participation process, the criteria – necessarily normative - have to be defined. From our literature analysis we identified the following four main criteria:

- The relative influence and equity in influence participants have on the final decision or outcome?
- Efficiency and efficacy in solving problems and conflicts defined by the participants?
- Collaborative learning towards building a common understanding around shared values?
- Accountability and transparency
- Openness of the process to participants
- Social capacity created by the process for sustaining and adapting its outcome.

The evaluation of how these criteria are satisfied necessitates an actor-based inquiry and a confrontation with the outcomes of the participation processes over time that we are not able to perform in the context of the present study.

Our research stays mostly at the descriptive, non-normative level, since we seek to analyze as much as possible what *are* the local actors perceptions and modes of interactions, as well as the historical and place bound characteristics of social interactions in relation with Communal forests, without pre-determining what they *should be*. While we consider power relations as a central element of our analysis of participation processes, we will in the present research only infer it from the inter-actor analysis of the interviews and minimize direct questions about power and participation in order not to bias the expression of these social relations. To *describe* a given participation or interaction process, without normative considerations, at one moment in time we will ask ourselves and use the interviews to answer the following more descriptive questions:

Who is taking part, who is initiating and who is controlling the process?

Why does the process take place and why do different actors engage?

How and *when* do the different actors take part in the process?

Our literature research as presented shortly in this first chapter indicates that there is mostly social action or policy oriented literature to promote participatory in forestry and relatively little social theory and methodology developed for observing and analyzing participation in natural resource management at local levels. We noted also that there are few comparative case studies done in the context of European countries about locally situated forest related social relations. The concept of participation is most of all indicating a form of political action. It remains defined in normative terms and remains relatively unclear about who are the entitled participants and how they can

influence the process (the definition of issues discussed - up to the decisions taken). The concept of 'participation' lacks in clarity precisely because it is contested among various actors' normative preferences and power strategies, many of them instrumentalizing the façade of positive political connotations of the concept for promoting their own agenda, in particular for legitimizing their own organization. In the next chapter we will further define a theoretical framework in order to give us conceptual and methodological tools for our actor and place-based inquiry of participation in relation to communal forest.

Chapter II.

Sociological theories on social action and social conflict

A. Social action from the perspective of structuration theory

B. Social conflict theory for analyzing collective forms of action

C. Additional concepts, notably culture and ecosystems

D. An integrated social theoretical framework for analyzing local social agency

The theoretical perspective for this research draws on social action theories. We consider participation to be collective agency, whereby two or more social actors act collaboratively in view of a shared objective. This chapter presents highlights from Anthony Giddens' structuration theory, which helps us to analyze the institutional contexts structuring – constraining and enabling - agency or participation. And it helps analyzing how various actors - in more or less collective and organized forms - decide to act and actually act, while using and changing these structures according to some shared objectives. We complement this approach with Michel Crozier's methodology, which is helpful for analyzing how various actors develop their strategies of action in the context of specific organizations, by inducing from their subjective account of their situation and their objectives what are the (inter-subjective) power relations and the social system in and through which they interact.

In order to identify the motivations of agents and the reasons why they organize their collective action in certain ways, we found it useful to complement Michel Crozier and Anthony Giddens' sociological perspectives with the social conflict theory developed by Lewis Coser (1956) and E. Schattschneider (1960, 1975). Coser relates various types of conflicts with various structures of social groups and modes of interaction. Conflict is accordingly not only a factor of instability but also of change, enabling actors and their interaction systems to adapt to changing conditions.

In a third section, we situate social action theory in relation with other key social theory concepts, as developed by other authors: *organization*, *institution*, *governance* and *common property regimes*. We will complement then our theoretical insights by discussing concepts related to the *cultural* and the *ecosystemic* dimensions of social interactions. In the fourth and last section of this chapter, we integrate these various concepts into a theoretical framework that structure and inform our methods of cases selection, of interviewing, of data analysis and interpretation.

It seems a paradox to start with a theory chapter while we claim to build the research on a “grounded theory approach”, which stipulates that theory should be generated on the basis of a systematic qualitative data analysis (B. Glaser and A. Strauss, 1967). However, we believe that we need to explain in advance a variety of theoretical perspectives *informing* our research but *without predetermining* our analysis of the results, without building a-priori hypotheses. We start with this theoretical exploration to both open and sharpen our “theoretical sensitivity” (A. Strauss and J. Corbin 1990, p. 75). It will help the reader understand the research process and inform our interpretation of the data, when coding it into categories from which we will induce propositions for explaining the characteristics of the places studied, as revealed by diverse actors constructively experiencing them in their daily lives. Michel Crozier's theory and methodology is likewise based on an inductive analytical approach, using qualitative interviewing methods.

A. Social action from the perspective of structuration theory

This first section presents the main concepts of the structuration theory of Anthony Giddens, complemented and discussed in relation to our research question with Michel Crozier's and a selection of other authors' social theory insights.

The actor

By **actor** we mean an individual or a group of individuals (maybe an organization), who is the subject of a social action, an action having an end and a situation.¹⁴ This research is actor based to the extent it is based on interviews, therefore on the necessarily subjective account of actors' perceptions of their relations with their social and natural environment.

The definition of actors is bound to a situation and therefore to *a place* and *a time*, in both its cultural and geo-physical configuration.

"The use of "I" develops out of and is thereafter associated with, the positioning of the agent in social encounters."

(Giddens 1984:7)

The *I* needs to give meaning to the self and for doing so it needs social interaction. Indeed, for Giddens, the actor needs to maintain a continued flow of interaction, and most of it routinized action, for ensuring both his *ontological security* and her social integration. And this production of sense rests mostly on the '*monitoring of ones behavior in relation to that of others (...). There is no time out of this process which is simply chronic*'

(Giddens and Pierson 1998: 85, cit in Parker, 2000: 56)

John Parker explains the importance of this continuity of agents' self-monitored reproduction and adaptation of social structures to changing contexts in Giddens' structuration theory:

"The continuity of social life rests, and ultimately the persistence of social systems, is only secured by the continuous reflexive monitoring required by social interaction. This is the interactional condition of the hermeneutic circle, the condition of endlessly reviewing interpretations to determine their relevance in the light of changing circumstances."

(Parker 2000: 56-57)

For Giddens, the structural properties of social systems are mostly embedded in the "practical consciousness" of the agents, it their capability '*in knowing how to go on*' – without being entirely aware of this knowledge – it enables actors to cope in a whole diversity of contexts of social life.

"Practical consciousness, although not 'discursively redeemable' for the actor, has to be distinguished from unconscious sources of cognition and motivation."

(Giddens, 1995:27)

Practical consciousness is the internalization of social habits or routines, which are almost instinctively reproduced. Through the interviews we mostly have access to the discursive consciousness or the level at which the actor is mostly reflexive. Only to some extent – through observation combined with text analysis – can we infer some of his/her routinized - partly non-redeemable - practical consciousness.

The unconscious – in which takes root the ontological security of the actor – the actors motivations are in part rooted in this unconscious and does only occasionally emerge in action (Giddens, 1984: 6), it is less accessible (and visible in the interviews) but does actually also play a role in the relation of the actor with the forest. The interviews show

¹⁴ According to Parson et al. "action is activity in some manner by principles of relationship to things outside the organism (p. 31) (...) It is confined to specific actors in specific situations." (1962: 41) By outside the organism, Parson et al. differentiate biological activity from social action.

that the forest is also associated to memories related to childhood-based experiences, and are associated to feelings of trust (Geborgenheit) and fear (of the unknown).

The self-monitoring which he can quite readily speak out because it is located in her *discursive consciousness* allows the actor to appreciate what is his or her choice and what are his or her means of action, his/her constraints or conditions of action. For Giddens *an actor could always act otherwise* and it is in this choice that lies his/her power. However, agency rests not only on the intentions or the rational choice of the actors. Giddens distinguishes the agents actual “doing” from her “intentions”. The distance between the doing and the intent lies in part in the unconscious motivations of the actors and the unacknowledged conditions of his action, both contributing to unintended consequences. (Giddens, 1984: 5-11)

Michel Crozier and E. Friedberg (1977) characterize the actor as agent based on the margin of freedom defining options of action in the system within which one is engaged. This freedom is both a source of power (of domination and of capacity) and of responsibility. For Crozier and Friedberg, the range of freedom – hence of power - actors continuously try to enlarge - rests on *relevant zones of uncertainties*. And the actor tries precisely to master these zones of uncertainties strategically at his/her own advantage. Expertise may shift the zones of uncertainties but does not dispense the actor from his/her responsibility to choose, and his propensity to locate new margins of uncertainty and free maneuver, to increase his/her discretionary power:

“Nor the scientific analysis, nor an ideological choice can determine which is the best choice in the absolute (...). The scientific analysis can help him become aware of the constraints and limits of action, and take him away some illusion of total freedom, but offers him however the possibility to discover resources and new opportunities and consequently to expand his real range of maneuver.” (Crozier and Friedberg, 1977: 387)

Actually, for Giddens as well as for Crozier and Friedberg, it is in this distance between the actor and the structure and the constructed system of action, which creates freedom for the actor to transform social structures and systems.

Structure and agency

The underlying theoretical perspectives we use for our research draws on social theories reflecting upon *agency* and social *structures*. According to Hay (1995), for any theory explaining social causal relationships, there are some underlying assumptions about *agency* or the relative autonomy of *actors* (or agents) in their institutional context (*structures*). Some are more or less agency-centered (*intentionalists*), while others are more structure-centered (*structuralists*).¹⁵ Giddens, as well as Crozier and Friedberg, view the actor as a potential agent who is submitted to constraints but has also a margin of freedom, an agent can always act otherwise. Both consider agency as partly free from social determination and have therefore a non-teleological perspective of history and social change, although, they also recognize the constraints and inertia of historically constructed social systems¹⁶. We consider that this balanced attention attributed to agency and

¹⁵ Durkheim’s theoretical perspective is more of a structuralist type, he seeks to understand the underlying social functions of agency beyond the individual intentions or purposes: people go to Church to worship God, but the function of their activity is to enhance social unity. Cit in Giddens, (1978), Durkheim. Fontana Modern Masters, Glasgow, UK, p.39. Functionalism is a variant of structuralism, where the underlying meaning and purpose of structures is analyzed.

¹⁶ The concept of *system* implies a notion of “order”, however, as says A. Touraine this “*Order is neither intangible nor coherent. It is only a partial arrangement of social relations, cultural transformations and power conflicts over influence and authority*” (Touraine, 1984: p. 113).

structure is useful for analyzing participatory processes because we wish to analyze the relation between the type of process, the actors taking part and the social and environmental system (within which the actors interact and the participation process takes place).¹⁷

We propose to conceptualize participation in a general way as *agency* in the context of a system of action (the organization of the participation process) that structures power relations along some rules. Actors decide to *act* (become *agents*), with a *purpose* (or intention) and a *strategy* for acting, according to their perception of the *system of action*. Actors define their *strategy* of participation or non participation by estimating their individual and collective margin of choice, considering the resources and capacities constraining and enabling their action, and their more or less conscious awareness of the rules of the game structuring the power relations in the system of action within which they are situated.¹⁸

Giddens considers structure and agency like two sides of the same coin. These structures are either resources or constraints according to the “vantage point” of the actor. This “vantage point” is determined by power relationships resulting from actors’ production and reproduction of structures; somebody’s enabling structure is likely to be somebody else’s constraining structure. And it is through agency that the structures are *presenced*, continuously and more or less consciously or routinely produced and reproduced.

Actors develop a strategy to selectively use enabling structures and to work around those they consider as constraining them. The resulting strategic action will affect the structured context, as well as constitute a learning opportunity for the actor to enhance his/her strategic knowledge. There is therefore both *utility* (affect on structure) and *empowerment* (enhancing the voice of the actor) in social action. For Giddens:

“Agency refers not to the intentions people have in doing things but to their capacity of doing those things in the first place (which is why agency implies power: cf. the Oxford English Dictionary definition of an agent: ‘An agent is one who exerts power or produces and effect’)”.

(1984, p. 9)

According to Giddens, all human interaction involves “*the communication of meaning, the operation of power, and modes of normative sanctioning (...)*”. Interacting, actors reproduce and possibly produce three main structural properties of social systems: *signification, domination and legitimation*. These three properties of structures are related: the *signification* of discourse and symbols is related to political and economic institutions (*domination*), as well as with law and other modes of sanction (*legitimation*) (Giddens, 1981, p.95.) For Giddens, structure when enacted generates power – constraining and enabling power:

¹⁷ This balanced importance attributed to on one side the actor and on the other structures draws on the school of symbolic interactionism. Meltzer et al. (1975) summarizes the synthetic perspective of this school of thought - as expressed by H. Blumer (1969) - as follows. For Blumer, interactionism consists of three basic premises: “*First human beings act towards things on the basis of the meaning that things have for them. Secondly, these meanings are a product of social interaction in human society. Thirdly these meanings are modified and handled through an interpretive process that is used by each individual in dealing with the things he/she encounters.*” [Meltzer et al., 1975 : 1] Other authors Meltzer (et al.) identify as part of this school developed in the sixties are G. H. Mead, J. Dewey, C. H. Cooley, H. Blumer.

¹⁸ According to John Parker (2000), Giddens has produced a socially very welcomed theory because it is a compromise, bridging the modernization functionalist and purely structuralist perspectives (objects reduce subjects – no agency) with the subjectivism – humanism theories – subjects reduce objects – no structure).

“At the heart of both domination and power lies the transformative capacity of human action, the origin of all that is liberating and productive in social life, as well as all that is repressive and destructive.”

(1995, p.51).

Structures, for Giddens, are the result of the dominion of human beings over the material world (*allocative resources*) and over the social world (*authoritative resources*). Giddens, beyond a Marxist vision of exploitation among classes, sees also exploitative relations between states, ethnic groups, as well as sexes. Structures are rules and resources; they are both the medium and the outcome of social practices constituting social systems. Structures are therefore not *outside* people, but carried forth and changed by people in their daily lives. Structures are viewed by Giddens as generative – they do not do anything but are made effective by agents. Structures are present when actors use them, otherwise, they are mere potentialities of virtual existence.

“Structures are the useable forms of the past’ - if you stop to use structures – they cease to exist.”

(Giddens, 1981:38).

Agency is therefore always historical and to a large extent involuntary (p.58). Resources - like institutions - can be both or either constraining and/or enabling, according to the actor and his/her situation in the social system.¹⁹

From the account above of Giddens’ perspective we notice that his social action approach lacks theoretical elements for analyzing more collective forms of agency, he sees mainly agency from the perspective of the individual actors²⁰.

For the analysis of participation processes, where necessarily more than one actor organizes their interaction, it is useful for us to draw upon Michel Crozier and Erhard Friedberg (1977, 1993), who are also social action or agency focused sociologists, but who have elaborated their perspective mostly from research practices on social interactions in the context of organizations. They have developed a methodology for inferring from the analysis of actors’ strategies the *system of action* in which these actors are situated. The data upon which they infer their understanding of systems of action is drawn from semi-directive interviews, whereby actors express how they perceive their situation and their constraints and opportunities of action²¹. Their methodology helps us analyze on the ground interviews of local actors situated in given places at a given time - *why* they participate or not and *why* they participate in a certain way rather than in another (their strategy and underlying intentions and attitudes).²² The last section of this chapter will show how, from the analysis of the various actors’ strategies and stated motivations to act in a certain way rather than in another, we

¹⁹ Giddens’ term of *allocative resources* can be understood as including natural resources – even though he speaks more generally of *material resources*. Giddens does not recognize the specificity of living resources, nor situate the social system in relation with ecosystems.

²⁰ Steven Loyal (2003) presents a critical account of Anthony Giddens, discussing the problems with this dualistic and individualistic approach. Indeed, Giddens poses the individual as one individual actor in front of society – stipulating that it is in this tenuous but necessary distance between him/her and society that rests his/her freedom to create and choose among alternative options.

²¹ We further develop on Crozier’s methodology in the third section of this chapter.

²² In their Theory of Action, Parson et al. state that an actor for selecting among various options orients his / her motivation according to *cognitive* discriminations (locating and characterizing objects by experience), by *cathetic* modes of orientation (feeling of attachment or rejection) or/and by *evaluation* of cognitive standards of truthfulness, appreciative standards of appropriateness or moral standards. This shows that even though the actor chooses – his/her selection of choices is likely to be influenced by common values or collectively shared motivation orientations. (1962: 5)

can infer the characteristics of the systems of action, which have some relevance for the Communal forest. But first we continue to explore some theoretical concepts we need to better understand the agency theory.

Power relations

Power and agency are intrinsically related for A. Giddens. Power is an actors' capacity to make a difference.

"To be able to 'act otherwise' means being able to intervene in the world, or to refrain from such intervention, with the effect of influencing a specific process or state of affairs. This presumes that to be an agent is to be able to deploy (chronically, in the flow of daily life) a range of causal powers, including that of influencing those deployed by others. Action depends upon the capabilities of the individual to 'make a difference' to a pre-existing state of affairs or course of events. An agent ceases to be such if he or she loses the capability to 'make a difference', that is, to exercise some sort of power".

(1984: p.14)

For Giddens, power is a relationship²³.

"Power within social systems which enjoy some continuity over time and space presumes regularized relations of autonomy and dependence between actors or collectivities in contexts of social interaction."

(Giddens, 1984, p. 16)

Steven Loyal notes that Giddens holds this perspective from Kant and that there is always a *dialectic of control*, an interaction of *autonomy and dependence*:

"The implication of this dialectic is that all power relations involve the interplay of autonomy and dependency, or a reciprocal and two- way relationship between actors, no matter how asymmetrical the distribution of resources between these individuals"

(Loyal 2003: 57)

For Michel Crozier and Erhard Friedberg too, power is not an attribute but a relationship between actors – resulting from an exchange, a negotiation between at least two actors that are relatively dependent on each other in the realization of a common objective – in their strategies. In these terms, each actor within a particular participation process is situated in a unique and dynamic configuration of power relationships:

"To say that any relation of power is instrumental aims simply at underlining that, like any relation of negotiation, power can only exist in the perspective of a goal which, in an instrumental logic, motivates the engagement of resources on the part of actors."

(Crozier and Friedberg 1977: 56).

For Crozier and Friedberg, power rests on two qualities – one the relative dependency/autonomy of the actors and the second, the uncertainty related to problems and solutions. Like Giddens, Crozier and Friedberg relate power to structure of domination, as they see that actors are unequal in their means to address problems and related uncertainties. Crozier and Friedberg highlight the dual meaning of power: the power *to dominate* and the power *to influence*. Power resides in the freedom each actor engaged in a relationship has to refuse what the other is asking him or her to do (Crozier and Friedberg 1977: 60), we would say, the freedom to take part or not.

Power relations need interaction to be produced and reproduced. Power relations are best reproduced if they are taken for granted by both the dominated and the dominant, considered as

²³ In opposition to Parson et al (1962), who define power in a more static way as an *object* allocated among the members of a social system *"Power, by its very nature, is a relatively scarce object, is possession by one actor in a relationship is a restriction of the other actors' power..."* (p. 200)

either taboo or a non-issue for discussion. This is why it is difficult to apprehend power relations directly through interviews. Power is the taken for granted – the unsaid - which the interviewed express through hesitations or pack into expressions like ‘*you know*’. (Devault, 1990)

From the literature we note that participation entails not always and not for all “empowerment”. It may emancipate some actors from social structures they feel too constraining or not adapted, but participation may also merely lead dominant actors to reproduce social structures or shift them at the detriment of other actors taking part or not in the process. According to Sarah White

“While participation has the potential to challenge patterns of dominance, it may also be the means through which existing power relations are entrenched and reproduced”

(White 1996: 7).

The evaluation of shifts in power relations resulting from participation is considered as basis for the typologies of participation by the authors we presented in the first chapter: Sherry Arnstein (1969), Michel Pimbert and Jules Pretty (1997), Michel Buttoud (1999,2000), Sarah White (1996).

Participation processes unable to shift decision-making power from the authority to the participants turn out to be a frustrating experience for participants. Birger Solberg and Saija Miina qualified such process along a *three I* model - when the authority controlling the participatory process *Informs* people about already taken decisions, *Invites* them to express their views, and finally *Ignores* their inputs (1997, p. 29). For Hanna Cortner and Margaret Shannon involvement mechanisms are often not satisfying participants, if they “*do not challenge power structures or change policy commitments*” (1993: 14). This type of participation process is in Gérard Buttoud’s terms: *alibi* participation (1999), it serves merely a legitimacy purpose for the controlling agency.

In order to analyse power relations, we may recall John Gaventa’s and S. Lukes three dimensions of power: The direct power of one actor over another (one having the resources and force to compel the other to do something in respect on an issue); the “mobilization of bias” (for deciding which is the issue that may or not be vocalized and how it can be addressed); the internalised power relationship (whereby the actor has lost his/her capacity to self-determine the issues, has suppressed conflicts, and reproduces the power relation by him/herself). For S. Lukes, from whom Gaventa draws this typology (but which he further tested), this third dimension of power is the ability of one actor to control another by “*influencing, shaping, or determining his very wants*”, or by exercising an “*ideological hegemony*”.

(Lukes 1974, cit. in Jordan and O’Riordan 1995: 16)

All three forms of power are useful for understanding different tendencies in participation processes:

- The first is the power that participants exercise for convincing others to consider their views and interests.
- The second is a tendency of the actors initiating and or controlling a participation process to manipulate the development of the process, defining a priori issues or interpreting with bias the outcome of the process
- The third can explain non-participation or suppressed participation by some actors, who have internalised the structures of dominations, making them believe that experts or authorities will decide better than they do, or preventing them to even consider the possibility of taking part. However, for Lukes too, it is because agents can exercise power that they are responsible, that there is agency – some autonomy of action in the context of social structures (Clegg 1989: 98).

Giddens, referring to Bachrach and Baratz (1962) simplifies notably these various categories of power proposing to distinguish basically two forms of power, and not three, as Lukes:

“(...) the capability of actors to enact decisions which they favour on the one hand and the mobilization of bias that is built into institutions on the other.”

(Giddens 1984: 15)

We will for our analysis find it helpful to consider the third dimension of power, which is the internalised form of power relations, whereby actors are no longer able to define their issues in their own terms and reproduce power relations unconsciously. It is quite characteristic that Giddens does not develop on this aspect as his conception of the actor and agency is giving the individual a great rationalization capacity (see also his concept of reflexive monitoring) (Loyal, 2003).

Locales

To explain what we mean with our focus on *local* participation processes, we can refer to A. Giddens' approach to *place*, as a space and time bound context - or *locale*²⁴ - where actors are present and available to each other:

“A locale is a physical region involved as part of the setting of interaction, having definite boundaries, which help to concentrate interaction in one way or another.”

(Giddens 1984: 375)

Accordingly, the locale is not just a position in space, but it is a *place*, which refers to the physical settings of social activity as situated geographically. This sense of locale is therefore bound to the actor and his or her network of relations and the geographical situation of this network. Giddens develops his concepts in the context of an overall critical reflection on modernization.

“In conditions of modernity, place becomes increasingly phantasmagoric, that is to say, locales are thoroughly penetrated by and shaped in terms of social influences quite distant from them.”

(Giddens 1990: 18-19).

Giddens believes that communication needs to be embedded in some sense of *place* in order to foster meaning and trust (in the sense of ontological security)

“The locales of collectivities are integrally involved with the structural constitution of social systems, since common awareness of properties of the setting of interaction is a vital element involved in the sustaining of meaningful communication between actors (emphasis added). (...) Locales may range from confined settings – the dwelling, office, factory, etc. - up to the large-scale territorial aggregations of nation-states or empires. A locale may be understood in time-space in terms of presence-availability. The ‘small’ community can be defined as one in which there is characteristically only a short distance in the time-space meshing of interaction. The interactions constituting the social system are ‘close’ in both time and space: the presence of others is readily available on a direct face-to-face basis.”

(Giddens 1981: 39-40).

Continuous agency is required for producing meaning, social integration and security.

“Only by being embroiled in a social world of others, with whom they can reliably interact, can persons have ‘ontological security’, that is a continuing sense of the well-foundedness of reality.”

(Parker 2000: 56, referring to Giddens 1984: 86-87)

For Giddens, face-to-face interactions are particularly important to the reproduction and production of social systems.

“Face to face interaction is of prime importance because bodily ‘co-presence’ allows actors to register the unique details of context, gesture and demeanour which help determine meaning.

²⁴ Giddens uses the common adjective of *local* as a substantive and adds an *e* at the end of the word.

*The continuity of social life, and ultimately the persistence of social systems, is only secured by the continuous reflexive monitoring required by social interaction.*²⁵

(Parker 2000: 56-57)

The geographers Agnew and Corbridge (1995: 16-17) interpret also the term of “space” as a historically constructed collective meaning. Schneekloth and Shibley (1995) define similarly their concept of “placemaking”:

“placemaking is not just about the relationship of people to their places, but also the way this relationship creates relationships among people in places.” It creates a space for dialogue social learning and it “facilitates the framing of action”.

(Schneekloth and Shibley 1995:1-6)

As we study six Communes with diverse socio-economic characteristics (more or less urban or rural and tourism oriented), Giddens modernization theory is helpful to relate spatial and historical variations – with the residents varied sense of the communal forest as more or less part of their “place” and their engagement in social interactions in the context of that place.

These considerations can shed light also on the importance of place-based meaning making involved in natural resource and forest planning – a plan defining a locale **representing** - or presencing - past interactions in the prospect of future interactions. The planning process necessitates the presence of the actors who are part of the local network, so that the plan will be *meaningful* not only to the planning agency, but to this network too. Otherwise, the situation described by Hanna Cortner and Margaret Shannon (1993) is likely to happen:

“The agency planning staff was concerned with the entire forest or district, citizens were concerned about specific places on the land. As a result citizens often could not relate to the plans as they were published.”

(Cortner and Shannon 1993: 15)

The power relations immanent in territorial and space representations are seldom questioned – even in participatory planning. Social differences based on occupation, class, ethnicity and origin, gender, kin and political appurtenances structure the very spatial configuration of land uses and territorial boundaries (Agnew and Corbridge 1995). These social power relations that are structured into land uses affect not only social, but also ecosystem dynamics (Pickett, 1997). Further, there are great historical changes in who are the actors (of varying representations, legitimacy and influence) entitled to taking part in decisions over spatial uses and their transformations. For example, environmental organizations, even if remotely socially related to a place, have only recently gained in legitimacy for influencing local land use decisions (Etchelecou, 1991). A dynamic spatial reading of power relations helps analysing how local actors of different social categories represent themselves the communal forest territory and how they engage in relation with these various spatial representations.

Modernization

For Giddens :

“‘Modernity’ refers to modes of social life or organization which emerged in Europe from about the seventeenth century onwards and which subsequently became more or less worldwide in their influence”.

²⁵ The times and locations of social interaction, employing skilful reflexive monitoring, are constitutive moments of the continuity, or presence of social systems. Parker (2000) in reference to Gregory, D (1989) “Presences and absences: time-space relations and structuration theory”. In Held and Thompson (eds.) Social Theory of Modern Societies: Anthony Giddens and his Critics. Cambridge: Polity.

(Giddens, 1990: 1)

Giddens says to have a *discontinuist* interpretation - in contrary to an evolutionist approach of social development, because modern social institutions “*have swept us away from all types of traditional order*, because they have had extensional (across the globe) as well as intentional influence “*as they have altered the most intimate features of our day to day existence.*” (ibid: 3,4).

The preceding section’s discussion, about failures in producing meaningful natural resource management plans, can be further analyzed as a result of *distanciation* or *disembedding*, as an effect of *Entfremdung* produced by modern institutions, which Giddens identifies as money, the State, science, etc. The modernization related effects Giddens calls *distanciation* and *disembedding* resonate with Durkheim’s distinctive concepts of social change from pre-modern *Gemeinschaft* to modern *Gesellschaft* (contrasting the communal with the societal, the personal with the impersonal (Giddens, 1978, 117). For Durkheim the passage of traditional to modern society implies the change in rules, laws and mostly sanctions, which he distinguishes in repressive functions and restitutive sanctions (reparation rather than punishment). For him modernization is then a relief from repressive functions –

“*Punishment is an act of vengeance on the part of the community; its ultimate source is the emotive response produced by the violation of deeply entrenched values. The prevalence of repressive law, hence manifests the prevalence of strongly held collective moral beliefs – of a strong “conscience collective” (...) of the prominence of mechanical solidarity. In such societies, beliefs are centered in religion.*”

(Giddens, 1978 on Durkheim: 25)

However the restitutive law in modern society cannot be wholly detached from the “conscience collective”²⁶ without which there can be no contracting. The *conscience collective* encompasses moral codes such as respect for autonomy, dignity and freedom of the individual, moral individualism.

With the division of labor and the emergence of private property – society gets more complex (increasing structural differentiation), and so does the institutionalization of restitutive law. Societies evolves, from what Durkheim calls “mechanical solidarity” to “organic solidarity” recognizing the interdependence of individuals. However, the passage from the one to the other is not smooth and does not increase contentment for all. The dissolution of the traditional or segmental (into clans – families kinship groups) societies has a cost in matters of social integration that leads to the increase in depression and suicides, notes Durkheim.²⁷

For Giddens (1990), the actor is affected by modernization in its essential trust or ontological security, which is built upon routine relations, giving a sense of predictability and ensuring continuity even in the absence of the caretaker (the parent for the child). Trust is necessary to protect the subject from “*existential angst or dread*” (100). Trust in pre-modern contexts builds on

²⁶ Demarking himself from psychology, Durkheim talks of social needs and consciousness as distinct from that of the individuals: “*collective beliefs, emotions and tendencies are not caused by certain stages of consciousness of individuals but by the conditions in which the social group in its totality is placed*” (cit in Giddens, p.106, from Durkheim (1964): The Rules of Sociological Method). Accordingly, Durkheim thought that social phenomena could be studied as separate objects, like natural sciences have studied natural phenomena.

²⁷ Suicide rates are according to Durkheim higher in Protestant societies than in Catholic for the “Protestant is alone before God”, while in Catholicism, in the latter system the individual is more strongly integrated. He further notes that suicide is more frequent among those working in commerce and industry than those working in agriculture.

relatively low time and space distancing, as compared with conditions of modernity. Because of its inherent connection with absence (originally, the need of the child to deal with the parent's absence), trust is always linked with modes of organizing "*reliable interactions across time-space*" (100-101). In pre-modern cultures, Giddens identifies four localized contexts of trust:

- *Kinship systems* – "*a relatively stable mode of organizing bundles of social relations across time and space*"
- *Local community* – Giddens does not romanticize the concept of community but means localized relations organized in terms of place "providing a familiar milieu", with limited time-space distancing.
- *Religious cosmology* – "*modes of belief and ritual practice providing a providential interpretation of human life and of nature*" (p. 102) and
- *Tradition*, "*Tradition is routine. But it is routine, which is intrinsically meaningful, rather than merely empty habit for habit's sake.*"

(Giddens 1990: 105)

For Giddens, with modernization, these place-based and time-bound environments of trust tend to be dis-embedded and trust is increasingly vested into on one hand, strictly personal relationships (friendship and sexual intimacy) and on the other hand, abstract systems constituted of distanced institutions (science, money, state, etc.). The trust system is constructed in relation to a system of risk interpretation, and Giddens notes that the threats of pre-modern times are not the same than for modern contexts.

"The notion of trust is related to the one of risk – which in pre-modern contexts was dominated by hazards of the physical world

(Giddens 1990: 106)

Giddens contrasts this with the modern perception of environmental threats:

*"At first glance, the ecological dangers that we confront today might seem similar to the hazards of nature encountered in the pre-modern era. The contrast, however, is a very marked one. Ecological threats are the outcome of socially organized knowledge, mediated by the impact of industrialism upon the material environment."*²⁸

(Giddens: 110).

Globalization dis-embeds social interactions and makes local places "*phantasmagoric*", it affects actors' identities and trust:

"But the impact of the three great dynamic forces of modernity - the separation of time and space, disembedding mechanisms, and institutional reflexivity – disengages some basic forms of trust relation from the attributes of local contexts. Place has become phantasmagoric because the structures by means of which it is constituted are no longer locally organized. The local and the global have become inextricably intertwined. Feelings of close attachment to - or identification with - places still persist. But these are themselves disembedded²⁹: they do not just express locally based practices and involvements, but are shot through with much more distant influences..."

(Giddens 1990: 108-109)

We add that places are not only perceived as multi-layered locales, but that these layered perceptions tend to increasingly vary among actors living or working in a same locality. This indeed makes places *phantasmagoric*, because perceptions of them are not shared – modernization eroding place-based social interactions.

²⁸ We notice here Giddens term of the "material environment" to which we contrast our view of the forest as a *living* environment (we will discuss the implications of this distinction later).

²⁹ "*By disembedding, I meant the 'lifting out' of social relations from local contexts of interaction and their restructuring across indefinite spans of time-space*" (time-space distancing) (Giddens, 1990: 21).

B. Social conflict theory for analyzing collective forms of action

Conflict is recognized as an essential ingredient of natural resources and environmental management. According to William Cronon “*nature will always be contested terrain*”, because everyone has different projections on *nature* (Cronon 1995: 52, Macnaghten and Urry 1998). The question of natural resource management always raises the question of “whose nature” or “whose resource” to value. In fact, the multiple-use and participatory forestry approaches, bring to the fore conflicting forest uses and values and uncover the complexity of social interactions related with forest management. In these management approaches conflicts reveal a diversity of values, they are therefore not per se negative but can constitute an opportunity for motivating the participation of diverse actors in the elaboration and negotiation of more compatible forms of use:

“*conflict is not inherently positive or negative, rather it has the potential to be either.*”

(Birger and Saija 1997: 15)

Participatory processes are always about the management of potential or actual conflicts, they may concern the *why* (issues addressed), the *who* (actors taking part) and the *how* (organization of the participation or conflict resolution process). According to Lewis Coser (1956) « *the conflict is always a trans-action* » (p.37): it cannot be objective but is necessarily inter-subjective. Coser distinguishes resentment or attitudes of hostility from the concept of *conflict*. To have a conflict, there needs to be a confrontation among actors, who are conscious about it and defend various « reasons ». A conflict implies a social relationship between actors with various systems of legitimation.

For Coser, the most destructive conflicts are the most suppressed or deviated ones. If society allows the expression and management of conflicts, these can favor social integration and autonomy (for the definition of identities and organization of groups) and social change (generative effect) and/or adaptation (stability). Coser, referring to Parson's study on linguistic changes, distinguishes “*change within and change of systems*” (Coser, 1967: 17). Indeed, Coser does not associate conflicts necessarily with social dysfunction or with an un-desirable relation resulting from bad communication. Rather, Coser argues³⁰, that conflict is a means to engage in social relationships and to avoid anomy in society. Coser cites John Dewey (1930), for whom conflict stirs actors to think and innovate:

“*Conflict is the gadfly of thought. It stirs us to observation and memory. It instigates to invention. It shocks us out of sheep-like passivity, and sets us at noting and contriving ... Conflict is a sine qua non of reflection and ingenuity*”.

(Dewey 1930: cit. in Coser 1967: 20)

Conflict offers an opportunity to adapt social structures and power relationships to changing conditions (sociation). Other more contemporary authors defend similar views, Vincent Price (1992) quotes Moscovici (1985)³¹ according to whom social influence is “*rooted in conflict and strives for consensus*” (p. 353). Conflicts motivate groups to debate, forming and changing opinions in the process, while seeking to restore or create a new consensus. (74-75). According to Coser, whether conflicts are beneficial to re-establish unity and to balance power in a social group depends on the type of issues raised – whether a more or less *core* issue to group consensus or *peripheral* - and on the social structures (more or less rigid and open). The social structures of the group are determined by its relative size, the degree of involvement by its members, and the more or less

³⁰ Based on Georg Simmel (1955), *Conflict*. Glencoe, I II, The Free Press.

³¹ S. Moscovici (1985), *Social influence and conformity*. In G. Lindzey & E. Aronson (eds.), *Handbook of Social Psychology* (3rd, ed. Vol.2, pp. 347-412), Random House, New York.

continuous or occasional struggling with outside (competing) groups. For instance, small or more closed groups, which Coser names *In-groups*³², requiring full involvement and in continuous struggle with competing groups, tend to have little tolerance *vis à vis* dissenters³³. They also need outside conflict to keep their unity and may create internal scapegoats if the outside conflict ceases or they may create a new conflict. The larger or more out-going groups (*Out-groups*) that require only a partial personal involvement and less continuous struggling can have greater tolerance for conflicts. For Coser, conflicts in *Out-groups* have more chance to be a source of integration than in *In-groups*, where they may actually be a threat to the group's cohesion. Furthermore, multiple lines of conflicts (if they do not touch upon core issues) balance each other out and prevent the breakdown of consensus. *In-groups* (sect like) have the tendency to suppress or displace conflicts, as members fear that any attack threatens the group's foundation or may lead to the exclusion of some members from the group. On the other hand, *Out-groups* may be less challengeable by conflicts, less capable to maintain or adapt their identity accordingly.

For Coser, a stable relationship is one where conflicts are not suppressed but expressed without endangering the core values holding the relationship. Accordingly, if there is no visible or readily identifiable conflict, we should be suspicious about claims that there *is* none and that a relationship is stable. This raises methodological and analytical questions for this research: How to find out about latent or suppressed conflicts in a community or group with a research mostly based on one-time interviews? How to identify the core type of consensus values that conflicts should not threaten in order to be capable of having the effect of "sociation" and social adaptation or resilience? Is the maintaining of the existing local institutional system desirable or are there some core conflicts that could be shaken in order to stimulate local institutional innovation and adaptation to changes in larger scale social and natural systems?

For fueling social change, conflicts need to tackle issues that challenge some core values – or social consensus. Applying also some of Crozier's reflection on power relations and uncertainty, we may think that the fear actors tend to have of conflicts hinges precisely on the uncertain or relatively unpredictable development of power relations the conflict gives new room for. For certain actors this factor of uncertainty creates from a conflict an opportunity, while for others – especially those at a vantage point with present social structures and unsure how to handle the uncertainty - the same conflict is associated with a threat, and they will try to suppress the expression of this conflict. Consequently, the same conflict will not have the same meaning to different actors. Recalling the analysis of power along Gaventa (1980), we can imagine that the expression of conflicts allows actors – especially the least advantaged - to become aware of power relationships, helping them to understand their relationships with others, to articulate their preferences and interests, as well as to develop strategies for satisfying them (overcoming the second and third dimensions of Lukes' categories of power).

Coser's analysis is helpful for analyzing the capacity of the identified participation processes (according to its group structure and the types of issues raised) to handle conflicts, and therefore to be more or less capable to stimulate social integration, adaptation and/or change.

Coser's reflection raises also governance questions relative to the most appropriate institutional level at which conflictive issues may be addressed. Indeed, the closer we are to the local

³² Coser uses the example of Bolchevik or sect like organizations for the *In-groups*, contrasting them to the *Out-groups*, which would be more church like.

³³ Coser based on Simmel distinguishes two types of dissenters: *renegades* (quit the group to go to serve the opponents) and heretics (don't quit but question some core values and propose alternatives, whereas the group wants no alternative). (p. 70-71)

community level, the closer the relationships between the people, thus the fuller personal involvement there is (resembling more to an *In-group*) and – according to Coser – the more intense are conflicts.

E. Schattschneider (1960, 1975) adds an important aspect in the discussion about the reasons for various strategies in expressing and managing conflicts according to the actors and their situation. Schattschneider raises the question of how conflicts become public issues? In fact, actors decide whether or not to air a conflict according to their appreciation of which concerned structures and power relations will be favorable for them, accordingly, they will decide to keep the conflict more or less private or open it to public interactions. Opening it, however, entails a risk, because becoming a public issue – the conflict may stimulate unpredictable and uncontrollable power relations.³⁴ The definition of issues and their alternatives is: Politics is about the exploitation, suppression and prioritization of conflicts, but Schattschneider notes that their expression and related debates and coalitions make them essential to democracy. In fact – more generally speaking - for Schattschneider: “*The function of institutions is to channel conflicts.*” (1960: 70)

C. Additional concepts, notably culture and ecosystems

In this section we shortly define theoretical concepts guiding our research. While these concepts are related with the social action theory just presented – we draw on other theories in order to better situate our main authors (Giddens and Crozier, etc.) within a larger social science literature. First we discuss definitions around three general concepts: *institutions*, *organizations* and *culture*. Then we present our understanding of some more focused concepts of collective action largely used in the literature and referred to in our thesis, in relation with natural resources: *governance*, *common property regimes*, and the *ecosystem based approach*.

Institutions

We can hardly differentiate Giddens’ concept of social *structures* from other contemporary social scientists’ concept of *institutions*. For Giddens,

“*Institutions are practices which ‘stretch’ over long time-space distances in the reproduction of social systems.*”

(Giddens 1995: 28)

Giddens in an earlier work proposed a classification of various forms of institutions, distinguishing the symbolic orders and modes of discourse, political institutions, economic institutions and legal institutions (1984: 33).

For Jordan and O’Riordan, *institutions* may be policy networks, standard operating procedures (role interests), structures of political power and legitimacy (routines, codes of conduct, modus operandi), national policy styles, (institutional configuration in a given country), international regimes (for conflict resolution and negotiation), institutions as pre-determined social commitments (1995). These authors cite M. Redclift (1992) for whom *institutions* are indeed, systems of prior “social commitments”. Referring to Talcott Parsons, Richard Scott says that institutions are constituted of norms regulating the relations among individuals and also “*crystallized meanings*”, which arise in regular situations of interaction (p.41). Referring to work of Durkheim and Silverman, he notes that:

³⁴ Schattschneider: “*The distinctive quality of political conflicts is that the relationship between the players and the audience have not been well defined and there is usually nothing to keep the audience from getting into the game ...*” (1960: 18)

“(...) meanings operate not only in the minds of individuals but are also objective ‘social facts’ residing in institutions. The environments of organizations need to be conceptualized not only as a supply house of resources and target of outputs but also as a “source of meanings for the members of organizations.”

(Scott 1995: 29-30)

Institutions ensure this continuity of social behavior – essential to the construction and maintenance of social systems. For Margaret Shannon are orienting and structuring social organization and social action:

“Institutions are patterns of relationships and organizations that produce and reproduce desired outcomes and actions.”

(Shannon 1999: 34)

Like for social structures in Giddens’ approach, Richard Scott notes:

“(...) although institutions represent continuity and persistence, they exist only to the extent they are carried forward by individuals.”

(Scott 1995: 9)

For Keohane – working from a structuration perspective:

“Institutions do not merely reflect the preferences and power of the units constituting them; the institutions themselves shape those preferences and that power.”

(Keohane, 1988: 382, cit. in Powell and DiMaggio 1991: 7).

We add that while institutions are the result of agency in a structuration perspective, they are not necessarily the product of conscious design: structures of power are rarely fully analyzed by the actors and are often taken for granted and reproduced routinely (Powell and DiMaggio, 1991, p.8). Institutions in the various meanings explored by the authors cited above help us give flesh to the concept of social structures, which Giddens and Crozier define in quite abstract terms.

A sociologist perspective on natural resource management will analyze “patterns of resource-use” (Shannon 1981:6), which more or less formalized institutions have a meaning – we would say a purpose and a strategy of action. This meaning may not be readily visible or expressed verbally by the actors reproducing these resource-use patterns. The sociologist’s role is then to be “an interpreter” of the meanings various actors associate to forests as “places” they live-in and from. (Shannon 1981: 6; Schneekloth and Shibley 1995). These meanings reflect and shape the social and the forest systems, that situate, enable and constrain their actions.

Organizations

For Amitai Etzioni who refers mostly to large modern organizations (state and non-state) –

“Organizations are social units (or human groups) deliberately constructed or reconstructed in order to pursue specific goals”

(Etzioni 1964: 15).

Etzioni also distinguishes the *real* from the *affirmed* goal (on which the organization builds its legitimacy) and the *individual* from the *collective* goals. As organization strengthens and the actors in decision-making power want to maintain their position and power, the real goal tends toward maintaining the organization (obtain the necessary resources) rather than fulfilling its affirmed goals (p. 20-28). Etzioni refutes a mechanistic and harmonious perspective of organizations, for him, organizations necessarily involve:

“tensions between the collective and individual needs, between the rational and irrational, the disciplined and autonomous, the formal and the informal, between the direction and the workers or more generally between the hierarchical levels and the sectors”

According to Erhard Friedberg for an organization to change requires “*a political action*” for mobilizing a group of actors, for modifying their interactions processes and the mechanisms of regulations or the rules of the game of the organization (1997). For Friedberg it requires leadership or “*change entrepreneurs*”, who are capable of elaborating and sharing a critical diagnosis of the current functioning of the organization and of proposing a strategy of change to adapt the organization to constraints and opportunities specific to the system of actors, and we would add, to the changing context. Friedberg obviously limits his approach to deliberative organizational changes. However, we understand from Etzioni’s perspective that there are also organizational changes that may not result only from a deliberated collective political strategy, but from the intentional and unintentional effects of the individual strategies of its members, as well as from the changing larger institutional environment influencing the organization.

Organizations are strongly structured “actors”, since in order to function collectively and to manage in face of uncertainty, they develop modes of functioning that are reproducible or routinized, or “*standard operating procedures*” (Allison in Jordan and O’Riordan, 1995, p. 17-)³⁵. The larger – more complex and more bureaucratized the organization is, the more it tends to institutionalize these routine management styles.

Schattschneider views organization – considering in particular political parties’ organizations - in relation with conflict and power:

“organization is itself a mobilization of bias in preparation of action.”

(Schattschneider 1960: 30)

Schattschneider further distinguishes organizations from non-organized groups by the degree of interactions and by the type of interests, they are mobilized for (public, private or special interest groups):

“The public interest refers to general or common interests shared by all or substantially all members of the community (...) All discussion of interests, special as well as general, refers to the motives, desires and intentions of people. In this sense the whole discussion of interests is subjective.”

(1960: 23-24)

For Michel Crozier (1963) – on the basis of his research on bureaucratic organizations, it is this standardization of procedure, which prevents organizations from addressing new problems and resolving emerging conflicts, and adapting to changing social conditions. This brings us the question of the scale of the organization and of whether smaller, non-bureaucratic organizations would be more capable of adapting to change and to address new problems and conflicts. At the communal level, we are not working on typical large-scale state or overly bureaucratic organizations. Smaller scale organizations may have less transaction costs for adapting to change and could theoretically be more capable of generating social change. We will discuss this question in the context of interaction processes in our sample of alpine Communes.

Governance

The concept of *governance* is useful to our approach because it is an active concept – it refers to authority in action but of a shared authority among multiple stakeholders.

³⁵ Jordan and O’Riordan base their discussion on the work of Graham Allison, 1971, *Essence of Decision*, Little, Brown and Co, Boston.

"Governance is the capacity of self-organizing systems to govern themselves, and includes not only formal government authorities and agencies, but also an array of private sector and non-governmental organizations as well as communities"

(Francis and Shannon 1999, cit in Shannon 1999, 34)

The concept of *governance* is often used with a normative emphasis on spatial and sectoral integration, as well as on policy-making processes involving multiple stakeholders and where authority lies not necessarily with governmental agencies. The spatial reflection on governance unveils the difficult articulations of various institutional levels from local to global levels. It raises questions about decentralization, devolution of authority or of subsidiarity. Margaret Shannon proposes to reverse the hierarchical perspectives of government, that consider the global and national levels on top of the local level, to an integrated vision of governance, where the local is the center where decision and action meet and make meaning:

"No longer is the locality simply the "site" where decisions are implemented, rather it is the place where actions are imagined and carried out."

(Shannon 1999: 36)

For Oran Young, local governance is *"the level which ultimately provides the legitimacy for the entire governance system"* (Young, 1994, 3-15). Like the other social theories, this concept of governance hinges on the tension between the will to reproduce social systems and the will to change them along visions of social and ecological sustainability. It includes a critique of placing the State at the center of all decision-making and institutionalization processes. The concept of "governance" distinguishing itself from "government", because it takes into account the multiple institutions below, above and parallel to the nation-state, because it includes policy-making processes involving actors from not only the public but also the private and civil sectors. Oran Young (1997) has developed the concept of governance mostly on the basis of international regimes claiming some expertise and decision-making authority over the use – conservation and allocation of natural resources – involving actors from various disciplines, sectors, and from governmental and non-governmental organizations. These regimes transcend state-centered structures to deliberate about issues and develop policies about global environmental problems related to the seas, the climate, the arctic zones, and other international policy issues.

Grazia Borrini Feyerabend considers various forms of authority over the management of protected areas, considering not only the power to control decisions but also the related responsibility and accountability:

"Governance is about who has influence, who decides and how decision-makers are held accountable."

(2003: 92)³⁶.

She develops a typology of various forms of protected area management, where the authority lies more or less with the various State agencies, private owners or corporations or with local communities. In our research we will refer to locally situated governance – as in M. Shannon's model of nested hierarchies, we focus on the center for analyzing all the influences structuring local actors' involvement in communal forest management and their mode of authority over forest decisions. (Shannon, 1999)

³⁶ Grazia Borrini Feyerabend (2003), relatively to the management of protected areas, distinguishes four main types of governance: Government protected areas (be it by federal ministries, by local municipalities, or by the governments delegated NGOs), co-managed protected areas (transboundary or collaborative management – pluralist form of management with the sharing of authority, responsibility and accountability); private protected areas (run by individual land-owner, non profit organizations or profit organizations); community conserved areas (declared and run by indigenous peoples, or declared and run by local communities) (p. 94).

Common property regimes

Since we focus on communally owned forests, it is also relevant to draw on common property theory, CPRs being a particular form of collective action. Common property rights are distinct from open-access, from state and private property rights, F. Berkes and T. Farvar (1988). In communal property:

“Use rights for the resources are controlled by an identifiable group and are not privately owned or managed by governments; there exists rules concerning who may use the resource, who is excluded from the resource and how the resource should be used”

(1988: 10)³⁷.

For Peter Glück, mountain forests are to some extent public goods because they fulfil public services, especially protection against natural hazards and habitats for biological diversity.

“A ‘public good is defined as one which is not subject to exclusion and is subject to jointness in its consumption or use.” Further based on E. Ostrom (1997) he notes:

“If someone cannot be excluded from the consumption of a good and there is no scarcity of that good, there is no market price that indicates the value of this good.”

(Glück, 2002: 127)

Recognizing this condition of mountain forests (largely referring to European – hence alpine forests), Glück discusses the advantages and disadvantages of different property rights to ensure the satisfaction of the mountain forest services, in addition to their market goods (timber and game), considering various forms of state and private regimes, as well as common property regimes³⁸. He concludes that:

“Theoretically common property regimes are well suited for managing common-pool resources, such as mountain forests (...). The attributes of competing uses (timber and other services) and high population pressure, which require co-ordination among the user to cope with externalities, makes vesting property rights in a group more efficient than either vesting those rights to a single individual or trying to parcel the resource into individually titled patches”.

(Glück, 2002: 132)

However Glück³⁹ notes that the CPRs in Switzerland and Austria (and we will see in France too)

“(...) became very dependent on state intervention either due to stewardship of the local forest authority or financial support or both.”

(Glück, 2002: 133).

Bromley stipulates that no property regime is better or worse related to sustainability in absolute terms, but that it is the lack of well defined property rights/obligations, that are problematic. Such lack of clarity occurs in various public (state) property or common-property domains⁴⁰, as well as in private type of regimes.

From the publications of Elinor Ostrom (1996) and E. Ostrom and Amy Poteete (2002), we summarize some of their main criteria for robustness of a common property regime and its capacity to sustain a resource according to characteristics of (1) the resource, (2) the users and (3) the institutional arrangements regulating interactions among users.

1) Perceived resource characteristics:

³⁷ Berkes, F. and M. Taghi Farvar, 1988. Introduction and Overview. In: F. Berkes (ed.): 1989.

³⁸ Glück (2002) defines property rights as the legitimate appropriation of a stream of goods. They refer to the actors entitled to appropriate, to the goods to be appropriated, and to the action the participants are allowed to take. (p. 129)

³⁹ See also Kissling Näf et. al (2001).

⁴⁰ Users in State owned property regimes have usually no decision and control rights, while in common property type of regimes they should have at least some.

*The boundary of the resource must be clear;
The resource is perceived as scarce or threatened;
There is common understanding of the common-good or common forest values.*

2) Users' characteristics:

*The criteria of membership in the group of eligible users of the resource must be clear;
Users have low discount rate;
Users trust each other (reciprocity);
Users with higher economic and political assets are similarly affected by forest degradation;
Users have prior organizational experience.*

3) Institutional characteristics:

*Use rules need to be clear and easily enforceable;
Infraction of use rules must be monitored and punished;
Inexpensive and rapid methods of resolving minor conflicts need to be devised;
Users must have the right to modify their use rules over time (autonomy); ⁴¹
Distribution of decision-making rights and use rights to co-owners of the commons need not be egalitarian but must be viewed as "fair";
Use rules must correspond to what the system can tolerate and should be environmentally conservative to allow a margin for error.*

Most relevant to our own research are the findings of Poteete and Ostrom (2002) on the basis of case studies conducted in Asia and Africa and Latin America, on local peoples investment in local institutions for sustaining forest resources:

- *Small* groups are not necessarily more *homogenous* (in their perceptions of forest values);
- *Heterogeneous interest* is not necessarily impeding collective action (depends on context);
- Small communities have not necessarily more *trust* in mutual relationships;
- *Perceptions* of the state of the forest - more than its *actual* state – determine the emergence of new forest institutions;
- It is local users *belief* that forest benefits outweigh the transaction costs of institutionalizing their uses which is determinant;
- Local people's willingness to invest in CPRs is determined by their dependence on the forest resources (*salience*);
- Users have some *autonomy* – self-governance capacity – and that this is un-contested or possibly encouraged by state agencies (if the state authorities challenge local institutions the transaction costs for these raise).

M.W Murphee on the basis of his experience with the Zimbabwe Campfire program further suggests that a key incentive for local people to invest in CPRs:

"The unit of proprietorship should be the unit of production, management and benefit."
(Murphee 1993: 6)

However in Alpine contexts in particular, we note that this is a model situation which barely exists, for communal forests in particular, which are typically owned by the Commune, managed by a State forest agency and benefited from by various users situated near and far from the resource, more or less aware of each other and the resource.

⁴¹ *Institutions for managing very large systems need to be layers with considerable authority devolved to small components. Cit from M. McKean, E. Ostrom, (1995)*

In this respect, we will discuss later, with all the results of our interviews in hand, the institutional disincentives and incentives for effective common property resources management in the French and Alpine regions.

Culture

The anthropologist Bronislaw Malinowski (1944) developed a way to study various cultures on the basis of a theory of needs – **basic or physiological needs** (nutritive, reproductive and hygienic). For the satisfaction of these needs, human **cooperate** and **organize** and construct in this process a new secondary or artificial environment with **derived cultural needs**⁴².

“Every cultural achievement that implies the use of artifacts and symbolism is an instrumental enhancement of human anatomy, and refers directly or indirectly to the satisfaction of a bodily need.”

(Malinowski 1944: 171).

Malinowski considers that “*Every effective human action leads to organized behavior*” (p. 51) and that “**cooperation** is the essence of every cultural achievement” and cooperation necessitates continuity and proximity⁴³ in the social contacts (which relates to the concept of locale as defined earlier in relation with Giddens’ theory):

“The essence of social life is cooperation. People can only exchange services, work together, and rely on supplementing each other as regards task and ability, when they are within reach.”

(Malinowski: 1944:56)

This implies also the existence of *a community* (in Malinowski’s terms, a community is a group with permanent relationships) (p.134). About the boundaries defining such communities or cultural units Malinowski relies on his ethnographic studies of tribes, situating communities both geographically and institutionally. He questions whether he can extrapolate from these tribal forms of organization, larger groups such as a “nation” and says:

*“It is probably better to describe the nation, primitive or civilized, an integral or partly autonomous, but also interdependent institution. In this nationality means unity in culture.”*⁴⁴

(Malinowski 1944: 61)

For Malinowski it is when habit becomes custom via symbolism that an organized behavior becomes institutionalized and that a culture is generating. For Malinowski, culture evolves from habit to custom via the capacity of a community to learn its behavior.

“All this hinges upon the ability of a group to incorporate the principles of individual achievement into a tradition which can be communicated to other members of the group and also, which is even more important, transmitted from one generation to the other.”

(Malinowski 1944: 135)

⁴² We note here that this distinction between physiological and cultural needs can be put in relation with the distinction between needs and wants – however, the structuralist approach of Malinowski gives little space for moralizing the individual actors’ preference to distinguish (his) needs from (his) wants. His theory precedes also the modern consumer society!

⁴³ Malinowski speaks of “propinquity” and “contiguity”, explaining the nature of the social relations involved. However, we cannot further detail these details here, this is why we interpret these two concepts of Malinowski’s in more simple terms as *proximity* and *continuity*.

⁴⁴ This definition of the *nation* may clarify the same term used by Alphonse de Lamartines (discussed in the beginning of this chapter), Lamartine (1790-1869) living in a time when France was beginning to institutionalize into a nation-state. The term *nation* is nowadays also used by indigenous groups as a culturally and territorially distinct (autonomous) institution, separate from the nation-state.

For Malinowski, an institution is based on an agreement or social **charter** (in the idea of Rousseau's social contract), which enunciates a set of values for which humans come together. The charter is the recognized purpose of the group. In an institution, humans stand in definite relations to each other and to a specific physical part of their environment, natural and artificial via norms (customs, ethics and law). Malinowski is helpful for us because he recognizes the environment as part of the system:

"All organization is invariably based upon and intimately associate with the material environmental setting. No institution is suspended in the air or floating in a vague, indefinite manner through space. One and all have a material substratum, that is a reserved portion of the environmental outfit of wealth, in instruments, and also a portion of the profits accruing from concerted activities."

(Malinowski: 1944: 53)

This allows us also to understand economic relations as part of relations with the environment and the culture mediating these relations: culture being generated by a social group's capacity to cooperate, thus to organize and learn collectively, and to transmit that learning by institutionalizing it via symbolism. Malinowski thinks that: *"systems of production and of property are determined by systems of knowledge and ethics"*(p.49). In other words, Malinowski says that the economy connects the normative (the cultural) and the environment (material goods).

"(...) economic, in its adjectival form, as this aspect of human behavior which is connected with ownership, that is the use or right of disposal of wealth, that is material goods specifically appropriated."

(Malinowski 1944: 128)

Economic relations imply therefore *social control*:

"In every community there are to be found means and ways by which the members become cognizant of their prerogatives and duties (...) and in case of deviation or breach there are some means for the re-establishment of order".

(Malinowski 1944: 128-129)

Malinowski links the concept of organization and the formation of institutions with the concept of *authority*, as a factor of not only social control but also of social *integration*:

"Authority means the privilege and the duty of making decisions, of pronouncing in cases of dispute or disagreement, and also the power of enforcing such decisions. Authority is the very essence of social organization."

(Malinowski 1944: 61)

Malinowski distinguishes institutions by their **principle of integration** and by **types**. The principles of integration and corresponding types (in parenthesis) are: reproduction (family, kinship, clan, territorial neighborhood, municipality); physiological (sex...); voluntary associations (clubs recreation teams, artistic societies); occupational and professional; rank and status (tribe-nation; tribe-state). It is the actors and their relationships that define the institutional types, while the principles of integration are defined by the utility for the group (p. 62-63). Malinowski distinguishes the **function** (role in satisfying a need) from the **form** of institutions (the manner in which it is done). However, he says that both, form and function need to be comprehended in an integrated manner: the symbol needs to be understood in relation with its meaning (152). Malinowski is basically a structuralist, analyzing the relationship between physiological and cultural determinism, he envisions relatively little autonomy for the agents. However, his very clear explanation of the link between organization, institution and culture – also in relation with the physical environment - is helpful for understanding how social structures and systems are shaped (form) and the reasons for this (function).

Some authors have a more or less structuralist approach to understanding *culture*. Parson et al. (1962) consider culture patterns as ‘system of ideas or beliefs’, ‘systems of expressive symbols’ (art forms and styles) or ‘systems of value-orientations’. While others include also the less formalized meaning making processes of social (inter)actions. In his book the *Interpretation of Cultures*, Clifford Geertz (1973), considers not only the structured or formalized aspects of culture into a symbolic system, but seeks to interpret also the meaning of informal social action of: “*the informal logic of actual life*”

“Behavior must be attended to, and with some exactness, because it is through the flow of behavior – or more precisely, social action – that cultural forms find articulation.”

(Geertz 1973: 17)

Fetterman as an ethnographer proposes to include into the concept of ‘culture’ both, the observation of behavior *and* knowledge, and to attend therefore

“social groups’ observable patterns of behavior, customs and way of life (...), as well as “the ideas, beliefs and knowledge that characterize a particular group of people” (1989: 27)

A contemporary perspective of actual interactions among various cultures is helpful for studying local communities that include people from various cultures (variations in origins, professions, education, religion, idioms, family, political preferences, etc.). “Culture” for Patsy Healey (1997) is defined as “*the systems of meaning and frames of reference through which people in social situations shape their institutional practices.*” (1997, p.37) Healey stresses that in today’s world in particular, where no form of knowledge or reasoning is any longer accepted as intrinsically superior to the other, and in which people are part of multiple and diverse social networks, collaborative planning implies collaborative meaning-making. It is this process of public reasoning, in which all and every one reflect about - and collaboratively transform – structures and power relationships, that helps constitute social capital. This social capital helps people to relate with each other, enhances their collective understanding and their collective capacity to address new problems in new situations. The criteria of success for such process are their capacity to create a place, to build trust, and to enhance understanding (Healey, p. 60). According to Healey, for such dialogue to develop, the power relations need to be *unpacked* (ibid, p.85), referring to Lukes (1974) three dimensions of power⁴⁵, she writes:

“Planning practice is thus not an innocent, value-neutral activity. It is deeply political. It carries value and expresses power. The power lies in the formal allocation of rights and responsibilities, in the politics of influence, the practices through which ‘bias’ is mobilized and in the taken-for-granted assumptions embedded in cultural practices”.

(Healey 1997: 84)

Patsy Healy differentiates the *process* of planning from the *substance* of planning, in particular distinguishing the question of how an issue is discussed (and we would add raised) from the question of what the issue is about. Considering the process, she highlights that it is often in the taken-for-granted assumptions about how to organize a planning process - or any other participation processes - that structural power is embedded. Patsy Healy refers also to Giddens’ structuration theory to recall that power relations both present constraints and opportunities, and that “*we make structural forces as we are shaped by them*”. She insists that we have some *autonomy* and that “*conscious reflexivity on our assumptions and modes of thinking, on our cultural referents, thus carries transformative power*” (p.49). Like Giddens, she does not view agency as a grandiose exceptional act, but as an every day option.

⁴⁵

i.e Lukes cited above in reference to our account of Gaventa’s perspective on power relations.

Aaron Wildavsky (1987) analyses the cultural dimension of the formation of values or preferences. The originality of his approach is to define culture less in relation to the geographically diverse origins of the people than to their attitudes, or their systems of interpretation and value formation. He asks the question “*why people want what they want?*” and differentiates accordingly various cultures shaping the formation of preferences. For Wildavsky, “preferences” (as well as Crozier’s “attitudes”) are the result of interactions between the individual (his psyche included) and his or her social contexts. Wildavsky says that ones’ preferences are based on one’s appurtenance to one of the four main types of culture, as distinguished according to people’s perception of authority: *apathy* (fatalism); *hierarchy* (collectivism); *competition* (individualism); and *equality* (egalitarianism). In fact, all four cultural identities are defined in their respective opposition, so that proponents of each one need the boundaries and the conflict with proponents from the other culture in order to know “*who they are and what they wish to do*”. Even if we may question the relevance of the four categories identified by Wildavsky, they are interesting because they place the culture of interpretations of the actor in the context of his / her patterned relation with authority, and shows that the formation of his values rests in great part on this intrinsically political relation. The interesting insight of Wildavsky is that preferences are built through social relationships and cultural conflicts, and that it is on the same construction that the foundation of one’s identity and mode of interaction rest. “*Conflict among cultures is a precondition of cultural identity. Power is constituted by culture*”. Each of the four cultures named by Wildavsky, structures and uses power in different ways and all four can be at times manipulative, violent and inconsistent. In fact according to Wildavsky actors do not always have consistent positions within these cultural preference groups. Since meaning, preference and power are constantly defined and redefined in changing social relationships, they are not fully predictable.

Cultural aspects of social interactions need to be studied at local levels, because they vary substantially from place to place and in time. Sociological perspectives help, but so do insights from geographers and anthropologists, as well as from the arts science, in order to understand the complexity of the symbolism constituting local institutions and representations of ‘nature’ (Zerner, 2003). In Dutch the term *landschap*, at the end of the sixteenth century, meant:

“*a unit of human occupation, indeed a jurisdiction, as much as anything that might be a pleasing object of depiction*”

(Schama 1995: 10)

The various resource-use patterns in a communal forest are based on claims – symbolized, affirmed and legitimised in ways particular to a place and a group of actors. A culturally sensitive approach should help interpreting place/time and actor based differences of representations amongst a selection of alpine communal forests.

The ecosystem approach

The recently developed ecosystem approach considers the relations among organisms, including humans and their physical environment, it includes the complexity of interactions between biophysical and social systems. However Steward Pickett (et al.) working on urban ecosystems note that simply inserting humans as one organisms among the others into an ecosystem analysis “*is correct but hardly adequate*”:

“(…) *humans are social creatures with large manipulative capacities whose primary means of adaptation is by learning. Hence they create institutions to regulate the productivity, storage and distribution of knowledge.*”

(Pickett et al. 1997: 188)

Further we need to recognize that there is no clear cut between natural and social systems. To which one do “cultural landscapes” belong? The forests, and in particular the alpine forests of the area we selected are the result of a long history of social relations.⁴⁶ The social theories we have just presented of Giddens and Crozier in particular do not consider the structures and dynamics of the biosphere- its bio-geo-physical and chemical base and the complex relations between human agency and natural systems. We could claim that Giddens touches lightly these dimensions with his concepts of *resources* and his recognition of the functions of the *body* in human agency. However, Giddens does not explicit the fact and its implications that these resources are mostly the fruit of ecological processes (Pickett et al. 1997:189). The ecosystem approach - integrating both social and natural systems - complements our theoretical perspective, since we situate social interactions in the larger contexts of ecosystems, of which the forest is part. Highlighting the aspects of the ecosystem approach directly relevant to the theme of participation, we refer to a report on the Ecosystem Approach of the fourth Conference of the Parties to the Convention on Biological Diversity. The report enumerates twelve principles of an ecosystem approach. The first principle says: “*management objectives are a matter of societal choices*”; the second, “*management should be decentralized to the lowest appropriate level*”; and the 12th principle, “*the ecosystem approach should involve all relevant sectors of society and scientific disciplines*” (UNEP-CBD, 1998). An ecosystem approach calls for the effective participation of key stakeholders, for their co-ordinated action.

Adopting an ecosystemic approach requires recognizing unpredictability or uncertainty (Shannon and Antypas, 1997), going beyond rigid and bureaucratic rules, and opting for more adaptive and flexible structures - organizations, laws, and management (Meidinger, 1997). Such adaptive management evolves upon learning processes taking place among citizens, scientists and managers. Schlaepfer, based on Stankey (1995), says that:

“Sustainability is fundamentally a sociopolitical construct rather than a scientific concept capable of precise, unequivocal measurements. It reflects a state to which we aspire, it embodies a concern with our ability to exist as a species, and it opens the door for scientists and technical specialists to engage society in an issue of mutual concern.”

(UNEP-CBD 1997: 4)

According to Jeff Romm, this element of social choice necessarily roots the definition and development of “sustainable forestry” in deliberation and negotiation among various actors’ interests:

“Sustainable forest’ has no definition until the what-where-when-how-who, the value perspective is specified. As few agree on these matters, the sustainable forest is controversial for good reason: any one definition represents particular values at others’ expense.”

(Romm, 1993: 280).

The choice and integration of territorial scales, when assessing the value perspectives of the concerned actors, is determinant for the participation process and its outcomes (Chauvin 2003). Integrating social and natural system dynamics at various management scales, while facing complex, uncertain, unpredictable interactions between processes of social and natural systems is the challenge taken on in bioregional assessment research, management and policy-making (Gunderson, 1999). Scholars engaged in the bioregional assessment approach foster sustainability, resilience and adaptive capacity of social and natural systems requires not only by engaging sophisticated interdisciplinary research, but also developing cross-sectorial institutional linkages, as well as participative and learning oriented policy-making and management processes; The role of science being mostly to *inform* (but not constrain) participatory public policy making (Cortner,

⁴⁶ Pickett et al. (1997) referring to urban ecosystems qualify them as ‘human ecosystems’.

Wallace and Moote, 1999).⁴⁷ Indeed, applying ecosystem-based management implies also building the concerned actors capacity to integrate various sources and forms of knowledge. Studies on ecosystem management in a watershed of Sweden showed that local fishery associations integrated scientific findings and new technical devices with their own ecological knowledge and local institutions and were successful in adapting to social and natural ecosystem changes. While increasing their monitoring and response capacity, local users' association and related social networks reaching beyond the local community, ensured sustainable fishing and improved the resilience of the watershed (Olsson and Folke 2001). Here we approach the concept of civic science as developed by Margaret Shannon:

"Thus, the knowledge held by people who live in a catchment and have generations of life experience within its bounds is no longer subordinated to the knowledge of scientific experts, but rather is necessary for effective civic science."

(Shannon 1999: 13)

In such watershed-based institutions, the local level integrates factors of change coming from broader ecosystemic and institutional scales, but is the place where integration takes places, where social action is situated, where management objectives are decided, implemented, monitored and adapted.

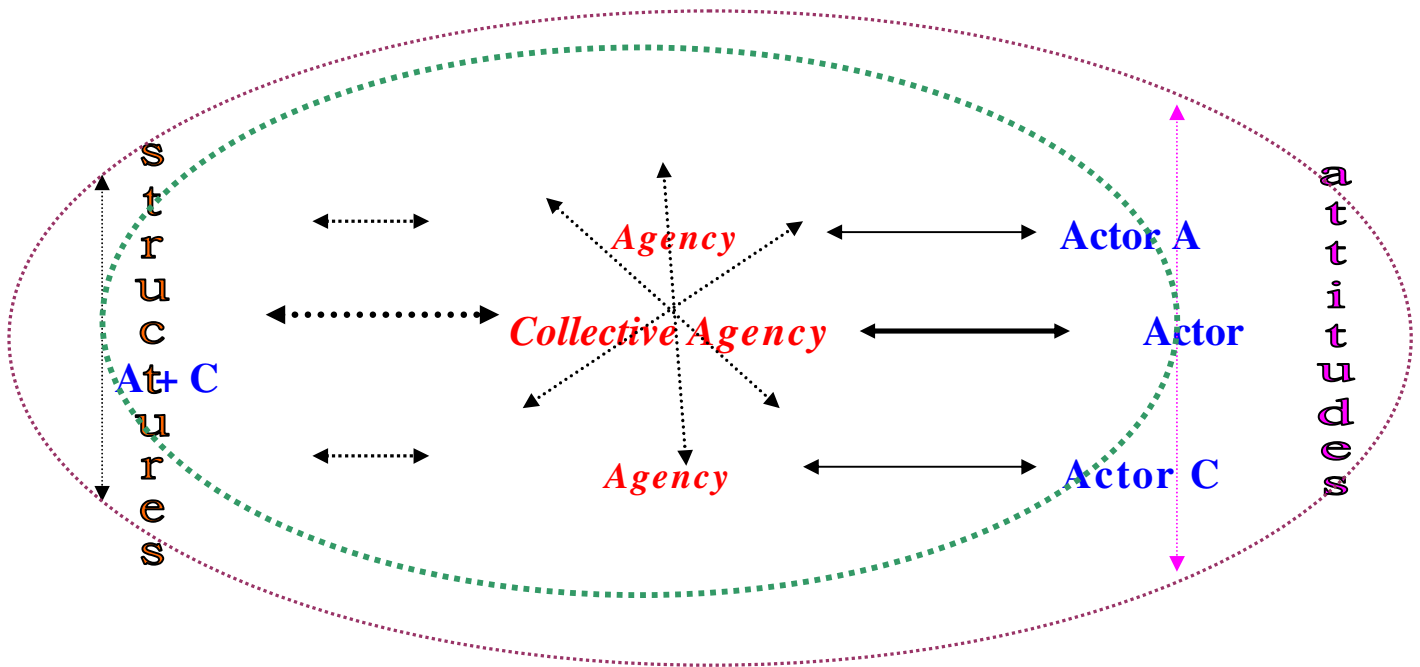
D. An integrated social theoretical framework for analyzing local social agency

On the basis of the various theoretical concepts and approaches presented and discussed in the preceding section, we conclude this second chapter by proposing a synthetic theoretical framework. We have seen that Giddens' structuration theory is useful but not sufficient for our theme. We need Michel Crozier to address the interactive aspects of agency typically encountered when studying agency in the context of organizations or situated participation processes, which he conceptualizes as *systems of action*. Crozier does not have a mechanistic vision of systems. For Crozier, who studied agency mostly in the context of enterprises, organizations and their modes of functioning are the result of conflictive, contingent interests of the actors using their margin of power. The conflicts are not a dysfunction but the price an organization needs to pay for existing. However, the actors need to constrain their freedom to some extent in order to still be able to play the game – they need a minimum of constraining rules to which all abide in order to have a minimum of cooperation while still maintaining their autonomy (Crozier and Friedberg, 1977: 198). For Crozier and Friedberg, actors taking part in an organization seldom agree on a common objective but they may have some shared purposes (1977: 80). An organization is accordingly essentially problematic a cultural construct in constant change. This perspective is compatible with Lewis Coser's theory of conflicts. We will use Coser's additional insights for analyzing how conflicts are constitutive of the identified participation processes and how they fuel agency (from both sides, the actor's and the system of action's). Before starting our empirical research, we define participation as a system of collective action, which both constrains and enables participating agents, as they voluntarily pursue their own (more or less conflicting) purposes, as well as some shared purposes that correspond to some common values.

⁴⁷ Otherwise, "there is a risk that decision choices will be narrowed to options that can be technically defined and measured rather than allowing open discussion of preferences" (Cortner, Wallace and Moote, 1999: 77).

Figure 1

Participation processes as systems of action



The large **plum circle** illustrates the overall **social system** and the green circle the **system of action**, which is the participation process that organizes the **collective agency** of the various agents taking part in the interaction – illustrated with the crossing strategies at the center of the scheme. Each actor still pursues his/her own **strategy** (the black arrows) and the participation process coordinates processes part of these strategies into a **collective strategy** (which is illustrated by the larger arrow on the left side of the scheme, labeled Part).

The **attitudes** and the **structures** the actors use and change – also through the participation process – are situated in the larger black circle of the **social system**. The social system and its **structures** are a result of the historicity of agents situated in time and place⁴⁸. The actors' **attitudes** and the **social structures** are produced, reproduced, dissolved or changed in the context of this larger **social system**, of which the **system of action** is part (green dotted circle). The larger **social system** circle is also dotted because it is open, in relation to other social systems, as well as with ecosystems. The arrows of the **strategies** are dotted, because they are not fully transparent, as they involve power relations resting on both uncertainty of interactions and free choice of agents (making strategies necessarily not fully predictable).

⁴⁸

For A Giddens, “historicity is a reflexive use of the past to reorient the future” (1991: p. 51)

In contrast with the varied conceptual approaches of ‘participation’ (discussed in the first chapter), our agency based framework definition of ‘participation’ does not exclude any form of social interaction based on criteria, such as the process’s relative influence on decision-making, or on questions of who controls the process, who takes part in it and who is more or less empowered by it. Our objective prior to the empirical research is mostly to provide conceptual tools, which will help us then inducing from the cases more precise definitions of what the various identified ‘participation processes’ actually *are*. This systematic descriptive approach is coherent with Crozier, who uses the strategic analysis as a heuristic mode of reasoning, as it is with the grounded theory approach, which we will further present in the next chapter.

Perceptions and opinions we collect in the interviews are quite flexible, but they are also constructed and oriented according to less contingent *attitudes*.⁴⁹ Social research can only partially scrutinize these deeper attitudes, but according to Crozier and Friedberg they surface when one analyses the actors’ account of their intentions and strategies of action, because they are not just mirrors of the past but orient the future (1977: p. 406). Agents decide to set action according to their perceptions about the potentialities of actual and future inter-actions. In a Crozerian perspective, *attitudes* are not studied for themselves but in order to reveal, via the strategy analysis, the system of action (which he limits in his research practice mostly to definite organizations). The strategies of actors mirror the actors’ perceptions of their margin of freedom and power relationships. The strategies become an indicator from which it is possible to infer the resources and possibilities as well as the constraints of the system of action. The assumption of the strategic analysis is that individuals try to use rationally and strategically their zone of freedom – but that there are also unintended effects of actions and unconscious motives of action.

For Michel Crozier and E. Friedberg, the researcher needs to make a detour through the interior of the actors in order to know how they understand their own situation, their constraints, and their options of action. Then the researcher can induce hypothesizes about the strategies, related attitudes of the agent and the structures of the system of action in which he/she is situated and inter-acts:

“Through such an iterative process from the feelings (perceptions) to the strategies, and then from the strategies to the rules of the game and back to the feelings, the researcher will be able to discover from the lived experience of the different actors (groups or individuals) the structuration of power in the domain studied and the rules that condition their behavior.”

(Crozier and Friedberg 1977: 412)

The particular constraints and opportunities (for agency) result from the structures as well as the resources and objectives of the actor (or agent) her/himself. The system of social action results from the dynamic articulation of the various actors’ agency.

These dots indicate that even if we have to do with a quite formalized participation process, there are informal interactions which are less visible through the interviews (need more observation), which are also the ones which generate uncertainties and give space or power to act along his / her own designs. The interviews are not entirely conscious nor willing to express where these (fertile) zones of incertitude and power are, or where the social system leaves space for raising conflicts, for debating values and for defining identities.

⁴⁹ For Vincent Price (1992), the concepts of opinions and attitudes are often used interchangeably, however, for others (like M. Crozier) opinions are punctual and partial expressions of attitudes, they are more situational “An attitude is traditionally conceptualized as a global, enduring orientation toward a general class of stimuli, but an opinion is viewed more situationally, as pertaining to a specific issue in a particular behavioral setting.” (1992: p.46-47).

Even though Giddens refers implicitly to natural systems, in particular by the importance he gives to the bodily nature of the agent, and the resources which are one of the two elements of his concept of structures (the other being rules), we need a more explicit reference to ecosystems. We do so by complementing Giddens' approach with insights from Bronislaw Malinowski's integrated approach linking cultural with natural anthropology, and from the more recently developed ecosystem approach. Social structures like social systems are in fact "virtual" - they are only to the extent they are enacted - or in Giddens' terms "presenced" - by actors. Ecosystems on the contrary *are* - even if not enacted by actors - however, actors take part in their changes through their actions. The actors' ecosystemic participation - using nature as a resource for satisfying their interrelated natural and cultural needs - will be influenced by their representation of - and attitudes - regarding nature (J. Hannigan, 1995: 30). For Lenhard (1990), the environment cannot be seen objectively, but always through some personal and socio-cultural construction ('WahrnehmungsfILTER' in German) (p. 139-141). Social research is about identifying those perception filters that are images, representations, feelings and norms, hopes and motives that are often not apparent. The question Lenhard asks is: under what conditions are people motivated to challenge and change their routine and punctual action considering some environmental issue? For her:

*"The questioning and interruption of routine actions impacting on the environment seems to be related to the questioning of relationships between the person and various aspects of daily life as well as relationships with close people."*⁵⁰

(Lenhard 1990: 145)

The two vertical arrows on each side of the social system and included system of action signify change - change in either social structures or actors' attitudes. In fact, both changes inside and outside of the actors are related, and conflicts both within and between actors are necessary to enable these changes.

Structuration theory shows how actors continuously enact and change structures of the social systems in which they are situated. Social systems' 'presence' is entirely dependent on continuous social agency, and it is through social interactions that actors construct meaning and their identities. We have expanded the theory of social agency to comprehend local actors not only in the context of social systems but also in ecosystems - of which the forest is part. The difference being that ecosystems do not rely solely on human agency to exist, but on a complex web of life (biosphere) and its physical environment, in which humans are only participants. It is based on their social interactions in the context of social and natural systems, that the local actors construct the meaning of the forest and by doing this they shape their own identities, as well as they shape and transform the forest⁵¹. Based on this theoretical framework we can now explore how various 'interactions' between local actors and their nearby forest generate conflicts and values, how these contribute to engaging local actors' in local forestry, considering also contextual factors influencing their social agency, related to the broader social and natural systems in which these actors and forests are situated.

⁵⁰ "Das Infragestellen und Aufbrechen von Handlungsrouinen im Umweltbereich scheint mit einem Infragestellen der Beziehung der Pers6nlichkeit zur verschiedenen Lebensbereichen und zu seinen Mitmenschen einherzugehen." (Lenhard 1990: 145)

⁵¹ Based on a discussion with Margaret Shannon, March, 2004

Chapter III.

Site selection, methods of interview and data analysis

A. Thematic and territorial selection of alpine Communes

B. Interview methods for listening to the actor in “place”

C. Data analysis inspired by grounded theory

A. Thematic and territorial selection of alpine Communes

In this chapter, we wish to explain the selection process for the research sites, the definition of criteria for their selection, and the methods used to select well-distributed and representative Communes. First we need to discuss the reasons for our decision to focus on an alpine transboundary region between Switzerland and France, and in particular on communally owned forests.

Why a transboundary alpine region between France and Switzerland ?

Few studies have been conducted in the context of industrialized and tertiarized countries on participatory forest management at local levels (Jeanrenaud, 2001). The French and Swiss Alps are among the highly urbanized and tertiarized regions of the world, and are also characterized by a historically important presence of state forest agencies in the management of forests. In order to examine varying influences of various forestry institutions on local actor's relations with communal forests – we purposely chose to study a transboundary alpine region, between Switzerland and France and in Switzerland across two cantons, forest management being in Switzerland largely determined by cantonal administrations. Both French and Swiss forest agencies have used substantial financial, taxation and legal means as incentives and disincentives for influencing forest resources uses and management in their mountain regions in particular. These agencies have therefore conditioned to a large extent local actors' involvement in forest management, especially on communal forests, which these agencies consider as public forests and manage generally alike other types of public forests (of regional or national state ownership).

Why mountain forests ?

Evaluating the conditions determining the “self-governance” capacity of a community relatively to the management of its natural resources, E. Ostrom (1999) assumes that the *salience* of the resource base is a determinant factor. Building on this proposition for selecting our case studies, we found that mountain forests tend to have a relatively great salience to local communities for their multiple services and products. Mountain forests are typically multiple-use and multiple-function forests. The European Observatory of Mountain Forests (EOMF) was created in 1998 with the objective to promoting resolution S4 from the Ministerial Conference for the Protection of Forests in Europe (Strasbourg, 1990), which concerned mountain forests and mountain land uses in general. The observatory's numerous seminars and collective publications highlight that for sustaining the multiple benefits of mountain forests mountain populations need to be involved in their management (EOMF, 2000a: 17, 2000b, 2002, 2003). The voices of mountain populations' expressed in these various fora and publications underline that while geographical situation made mountain regions the key providers of environmental values, appreciated far beyond mountain regions, these are externalized by the current national and global economies. Furthermore, the current economy marginalizes the mountain regions' primary sector in particular, because the costs of farming and forestry production are higher in mountain regions. While it has been in the interest of the market economy to keep on externalizing the costs of environmental services, national and regional governments do only partly compensate the mountain communities that guarantee these services. And the quite dynamic tourism industry cannot completely and equitably enough across

all mountain regions compensate for the loss of gains, of jobs, and of landscape services induced with the decline of the primary sectors. Even though European governments, Switzerland in particular, subsidize mountain communities for providing part of these services, the erosion of the primary sector in Swiss mountain regions continues (Groupement Suisse pour les Régions de Montagne 1988, OFS 2001).

The comparison between the two countries France and Switzerland is interesting for analyzing the importance of the institutional context to participatory management across various governance⁵² levels. Indeed, these countries have quite different forestry-related institutional systems, considering, for instance, patterns of centralization and decentralization, of property and user rights, of public support to rural and mountain economies. While 70 % of the forests in France are under private property, 73% of Swiss forests are public. “Private” and “public” lands mean also different things in the different countries. For instance, private forest owners in France have more exclusive rights on their forests than have private owners in Switzerland. In the latter the public has access onto all forested land, including for hunting and picking. In Switzerland, at district levels, usually including several Communes, forest orientation plans are presently developed with a legally defined mandate to open their process to public participation. On the other hand, while much forestry decision-making power is behold in canton's hands in Switzerland, the Commune in France has great authority in deciding upon land uses, but less so in relation to forestry. Furthermore, cultural differences are quite important within the selected transboundary region, including part of the two Swiss cantons of Valais and Vaud and the the French department of Haute-Savoie. Even though French is there common language there are important differences in dialects, in ownership regimes and in customary uses.

Why rural contexts ?

Another criteria of Ostrom is that local governance capacity for forest management is likely to be greater in places where there is some prior organizational experience (2002). Since local forest management institutions have often better survived among mountain communities this constitutes a further argument for the selection of cases amongst alpine rural regions. Based on literature research and forest policy analysis, we see that the concept of “participation” is often associated with that of decentralisation and local development, for the improvement of both rural livelihoods and the conservation or restoration of natural resources (IPF, IFF, Interlaken Workshop 2004⁵³). This applies also to mountain people whose economies are recognised as being generally more vulnerable and relatively excluded from national and urban-based decision making processes. Nowadays, forested areas are often a factor of “marginalization”, whereas they were in the past a factor of richness. For France, *marginalized agricultural zones* occupy 47% of the French national territory, and these zones enclose more than 60% of the woodlands and pastures of the country - but only 27% of the arable land. Furthermore, near half (47%) of these marginalized zones are in mountain areas⁵⁴. Forests in industrial countries of today are in other words only rarely the focus of attention – they tend to be considered as a secondary or background resource, which grows by itself and needs not much care. However, whenever violent climatic incidents occurred over the last decade such as the storm Lothar, or landslides and inundations in the mountain areas their

⁵² We use here the term “governance” – not “government” – because we look also at institutional contexts involving non-state actors.

⁵³ A UNFF country-based initiative, Decentralization, federal systems in forestry and national forest programs: report of a workshop co-organized by the governments of Indonesia and Switzerland, Interlaken, April 2004, paragraphs 42-47.

⁵⁴ The most striking indicator in the change of land uses of marginalized areas between 1992 and 1998 is the progression of forests and woods, that have gained 360 000 hectare in France altogether – but most of this increase occurring in mountain areas (210 000 hectares). The decrease of pastures in France is 530 000 ha.(one quarter of these surfaces being in mountain areas). (Agreste 1999).

importance suddenly is at the upfront of public awareness. This awareness seems nevertheless to go and come with the whims of natural catastrophes and their media coverage.

Why the communal level ?

We chose to focus on **communally owned forests**, because we assumed that local actors' would share some understanding and interests in these forests owned by the Commune they are residents, workers and decision makers of. That these local actors have opportunities to interact because of their common proximity to the resource, and that they may have interest in accommodating one another about the management of the multiple uses and functions of these forests (Ostrom, 2002, p.5). In addition, there is the documented important role local common property institutions have played in the history of alpine forest, pasture and water related resources management. (Merlo et.al, 1989, Zingari, 1998, Fédération Nationale des Communes Forestières de France, 1990, 1991).

Communes are both governance and ownership institutions, which predate the constitution of the nation states and some have maintained some of these non state-led common property institutions. In the Swiss canton of Valais, we counted as "communal forest" the bourgeois forests, which is not related to the communal administration but related to the collective organization of bourgeois citizens. To be a "bourgeois" is an inherited right or acquired right, which is associated with the members' participation in investment and management of the commonly owned resources. The bourgeois had in the past their own government – but the State abolished their political and administrative particular rights: in Valais all residents have equal civic rights in their Communes of residency since the cantonal constitution of 1844. However, to be bourgeois still confers status, municipals and mayors tend to be also bourgeois. The bourgeois still own substantial forests in Switzerland (32% of total forests) and also pastures and infrastructures. Communes are in both France and Switzerland substantial forest owners.

While public ownership amounts to only about 30% of the total forested area in France, 57% of public forests is actually owned by Communes, and in the alpine regions this latter proportion is even higher. For Switzerland, the proportion of public forests reaches 73% of the total forest area, and it is boroughs⁵⁵, local associations and Communes who own 90% of the public forests. In both countries, forested Communes, and among them in particular mountain Communes, have organised at regional and national levels, in order to promote and defend their interests in regional and national forest policy-making (Monin, 2000, Zingari, 1998).

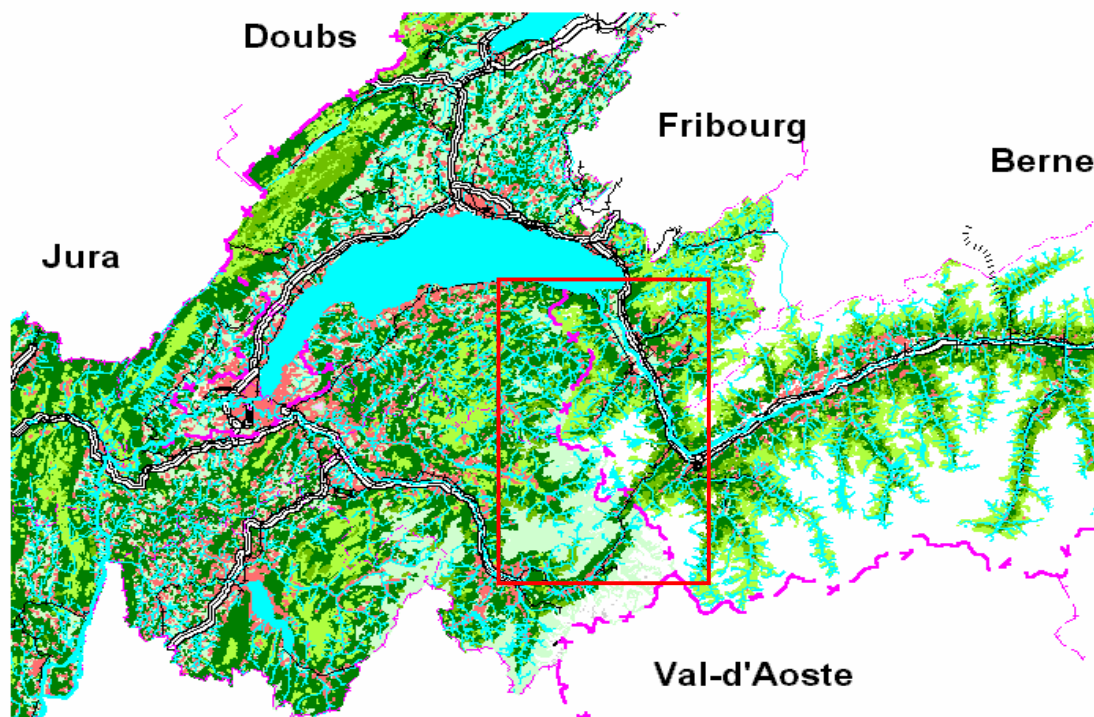
The complexity of communal forest management is due to the diverse roles the Commune embodies in this relationship. The municipality is a political entity of elected representatives elected by the residents, it is also the lowest administrative level of the State that has to administer many aspects of citizens' lives, including taxation, allocation of communal revenues and state subsidies. The Commune is also *persona morale* with obligations in the management of its budget, which gives the Commune almost the status of an enterprise. Finally, the Commune has also to represent the interest of its citizens as a collective owner of resources, including land, water, forest, infrastructure and buildings. The Commune has considerable decision-making power in deciding upon public services, including schools, waste and water management, even though the decisions and the administration of these services gets increasingly shared by inter-communal organizations. Communes are also delegating many of their management responsibilities to either private or public enterprises, be it for land use planning, for forest or for water management. The complex

⁵⁵ Ancient boroughs are associations of "burghers" who share rights over timber produced by ancestral forests. These local institutions are found mainly in German speaking cantons of Switzerland. The French speaking cantons – under the influence of Napoleonic law - have passed those rights to the municipal authorities (FOEFL, 1995, 27).

distribution of political, ownership and management roles between the communal and regional and national administrations confuses local actors' perceptions of and interactions in relation with communal forests. Often local actors consider Communal forests alike any other public forest, because indeed de facto it is managed like any other public forest. This holds for Switzerland *"Forest policy and competences concerning forestry were, in the course of history, gradually transferred from the Communes to the cantons and then to the Confederation"* (C. Arb and W. Zimmermann, 2004, p.14) and for France too, where decentralization policies (1983) conferring considerable power to Communes in land use decisions, forests were not included in this delegation. The Forest Code of 1985 maintained that: *"The politics to enhance the economic, ecological and social values of the forest is the competency of the State"*.

Figure 2

First selection of an Alpine transboundary region between Switzerland and France in the Léman watershed



Laboratoire d'Infographie
Université de Genève
Décembre 1997

Echelle: 1 in = 70240 m

We chose criteria of selection of Communes in the idea of increasing the potential for residents to be concerned about their forest and possibly participate in their management (for the relevance of the question) – and of varying the institutional, geophysical and demographic situation of the Communes selected (for representing some of the diversity of socio-environmental contexts characterizing the Alps).

We have selected six mountain Communes in the French and Swiss Alps using Geographic Information Systems (GIS, Infoléman, 1998⁵⁶) for extracting, organizing and representing some preliminary statistical and geo-referenced data on land uses and demographic trends. We selected arbitrarily the region of our focus, considering relative proximity to the researcher's base and our intention to study a transboundary region including mountain Communes of Switzerland and France. The resulting arbitrary sample included 79 Communes over parts of Haute-Savoie (France), Vaud and Valais (Switzerland). Among the arbitrarily set sample of 79 Communes we have then selected Communes that have:

- **A relatively great proportion of their territory under forest coverage** (above the means for each one of the arbitrarily selected regions within the administrative territories of Haute-Savoie, Valais and Vaud);
- **A substantial amount of this forest coverage owned by the Commune** (again above the mean for each one of the three selected regions).⁵⁷

Below is the map (Figure 3) showing for the three regions part of Haute Savoie, Valais, Vaud (from the left to the right) the twenty Communes (highlighted in striped structure) fulfilling the criteria of high proportion of communal forest property. Follows a graph showing the proportion of forest cover and of communally owned forest cover for all twenty Communes – highlighting with a yellow arrow the ones which will be eventually selected (Figure 4).

⁵⁶ Conseil du Léman, Infoléman, Système d'Echange de Projets, CD Version 1, Février 1998.

⁵⁷ Using statistical data available from :

- Inventaire Forestier National, Cellule Evaluation de la Ressource, Carte des Types de Formations Végétales de Haute Savoie (à partir des photos aériennes de 1995, calculées sous SIG projection Lambert et croisées avec la carte IGN des limites communales de 1992).
- Etat de Vaud, Dép. Service des Forêts, de la Faune et de la Nature, Inventaire Global des Forêts Vaudoises 1996, Section Technique et Gestion Forestière, données Geopoint sur les surfaces et la propriété forestière du Canton de Vaud.
- Office Statistique du Canton du Valais, Annuaire Statistique du Canton du Valais 2000, Sion, 2000.
- Sabaudia (site internet), Liste des Communes de Savoie et Haute-Savoie, <http://www.sabaudia.org/Communes/index.htm>
- SCRIS Canton de Vaud, Les Données - Population Résidente des Communes en 1995 et 2000, <http://www.scris.vd.ch>
- SOIAWebSIG, Système d'Observation et d'Information des Alpes, Office Fédéral de l'Environnement d'Autriche <http://gis.ubabvie.gv.at>

Figure 3

**20 Communes
with above average
forest cover and surface of communally owned forest**

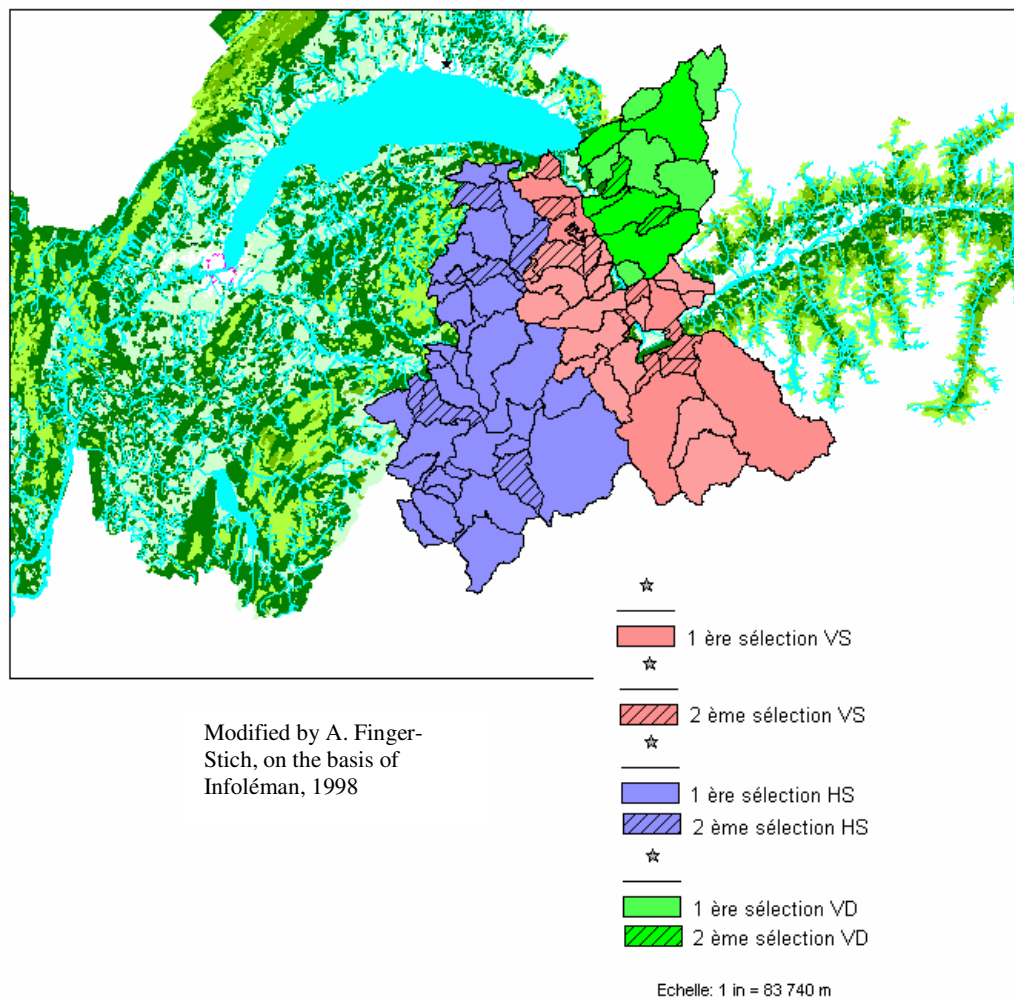
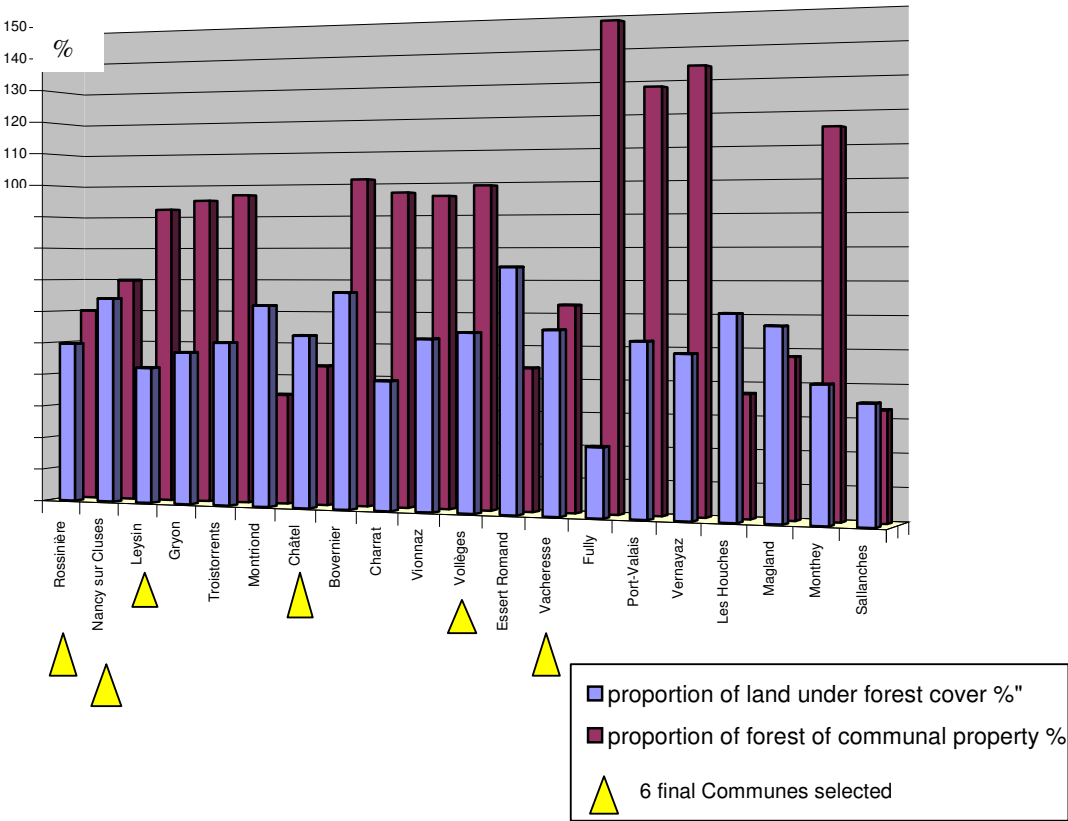


Figure 4

**Total forest cover by Commune and
area of forest owned by the Commune
for 20 Communes**
(2nd. selection phase)



For the resulting selection of 20 Communes, having therefore substantial proportion of their territories in communally owned forest - we have interviewed 18 local forest agents assigned to manage these forests. We have then analyzed this first series of interviews in order to identify which Communes had – according to the expressed foresters' perceptions:

- **A relatively important diversity of forest uses.**

We have then identified the Communes with relatively diverse and potentially conflictive forest uses.

Because we wanted also to have a sample representing different geographical and socio-economic situations, we have then used a series of socio-economic and demographic criteria for selecting 6 Communes that varied in:

- **The relative importance of the primary – secondary or tertiary sectors⁵⁸; the demographic trends⁵⁹ and the relative remoteness or accessibility of the Commune.** ⁶⁰

Accordingly, we estimated that there were five socio-economic types among the mountain Communes we considered for selection.

⁵⁸ Based on the interviews with the local foresters, the observation of the landscape and if available communal statistics, statistics on employment and local land uses.

⁵⁹ Statistical analysis of demographic trends in Bätzing (1993) stops in 1990. Confronted with more recent statistics, several of the 79 mountain Communes part of our first regional selection, which Bätzing identified as loosing inhabitants, have since 1990 seen their population grow. W. Bätzing assessed population patterns at the level of the Communes of the entire Alpine region across seven countries and over the past century. His study identifies four main types of Communes regarding demographic patterns:

- **Zone C** (centered on a city of at least 10 000 hab. - almost 60 % of the Alpine population lives in this type of zone which covers about 35% of the total territory of the Alps!);
- **Zone P** where residents are mostly commuting - working not in the Commune but in a nearby urban center (17% of the population of the Alps and a territory of 12%);
- **Zones N** which are rural and not dominated by a center and where there is still unity in residency and place of work and where tourism affect; about half the territory (23% of the alpine population on a territory coverage of 37%);
- **Zone D** characterized as zone N but which are loosing much population (8% of the alpine population concerned and 16% of the alps concerned). (Bätzing, 1998, p. 95) According to the results of these researches we suggest to select Communes from the zone N type.

⁶⁰ (Bätzing 1993: 26, Karte 1, Karte 3; Bätzing, Werner, Y. Dickhörner 2001: 11-19)

Related to road connections and availability of other transportation infrastructure.

Socio-economic types:

Type 1. Communes in middle altitudinal ranges, where the primary sector plays an important role, of relatively remote access to economic poles with a mean decreasing or stagnant population;

Type 2. Communes in middle altitude mountains where the primary sector plays an important role, but with a relatively good access to the secondary sector type of occupation in the valleys or to the tertiary sector (mostly tourism related) in a nearby resort, Communes with a raising population;

Type 3. Communes including also higher altitudinal mountains, with an economy mostly based on tourism, often accessible and with a growing population;

Type 4. Communes closely connected with the valley and with an economy based mostly on the secondary and tertiary sectors and which population is growing;

Type 5. Urban Communes with more than 5000 inhabitants and a growing population, good accessibility – locate in or very near the Valley in and a dominant tertiary and often a strong secondary sector.

While we included urban Communes in our original selection (with over 6000 inhabitants), we chose for our final selection only rural Communes of less than 3000 permanent residents. Therefore we excluded type 5 and 4 in the final selection.⁶¹ However, two of the six finally selected Communes have a highly developed tourism sector - Leysin (Vaud) and Châtel (Haute Savoie) – and have their population about doubled in the high season.

The choice to reduce our focused study to the three more rural types is mostly based on limited time and resources. Furthermore, in urban contexts understanding the system of social interactions would have necessitated many more interviews than the ten to fifteen we did in the smaller Communes.

⁶¹ We conducted also interviews with local foresters in the secondary selection of mountain urban centers (Monthey in Valais and Sallanches in Haute Savoie) and we interviewed twenty people with the same interview guide used for the finally selected six Communes in two Communes corresponding to the fifth type (Les Houches in Haute-Savoie and Vernayaz in Valais).

In summary, the selection process is structured in the four following steps:

Figure 5

Selection criteria and process

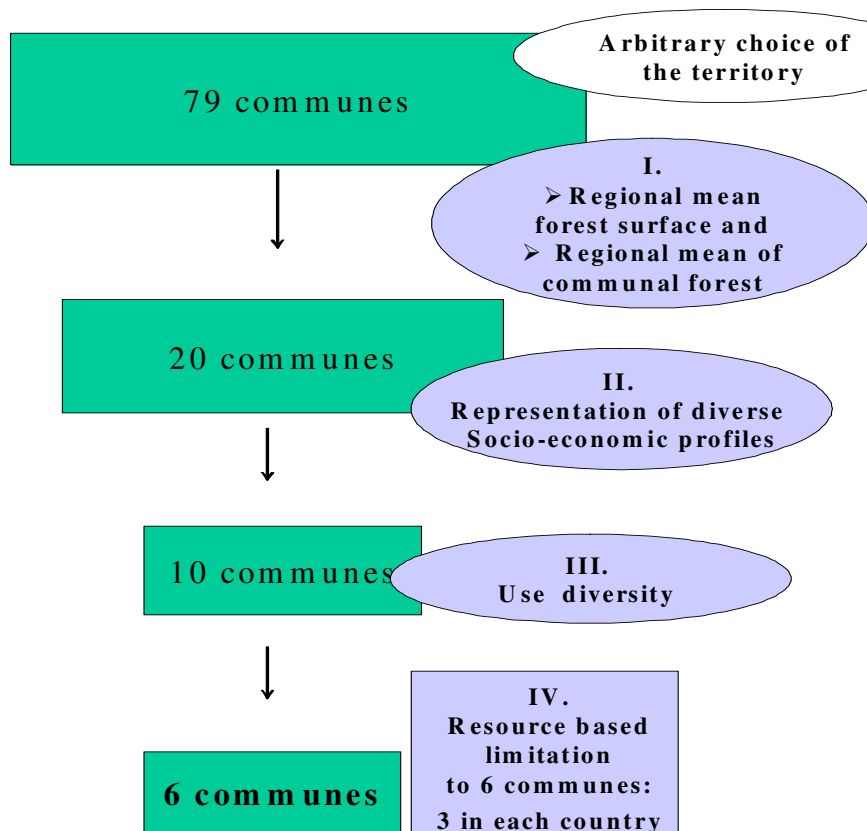
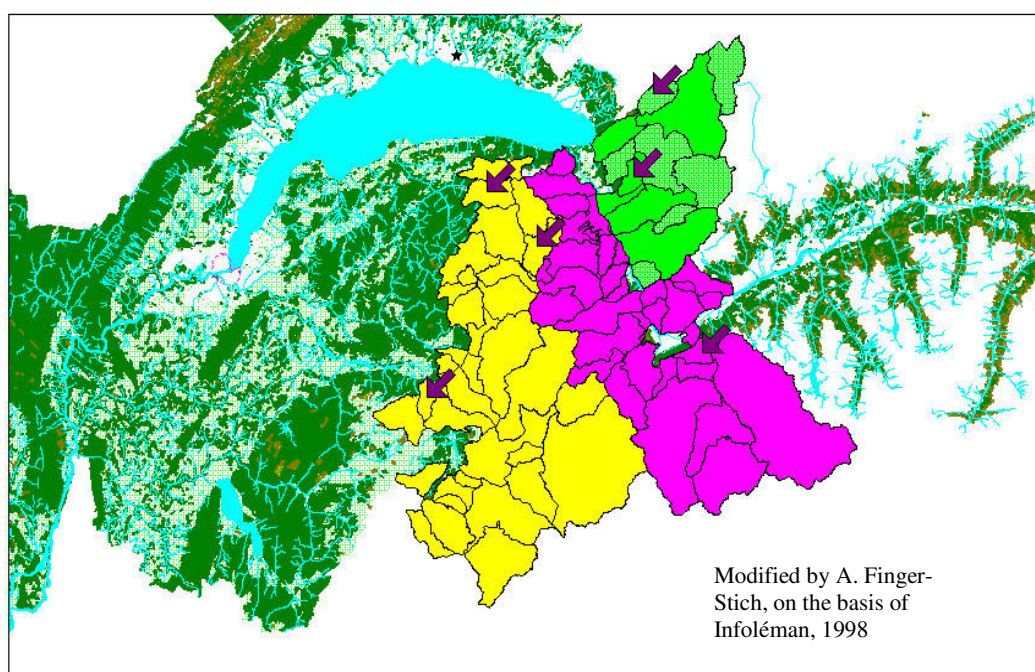


Figure 6

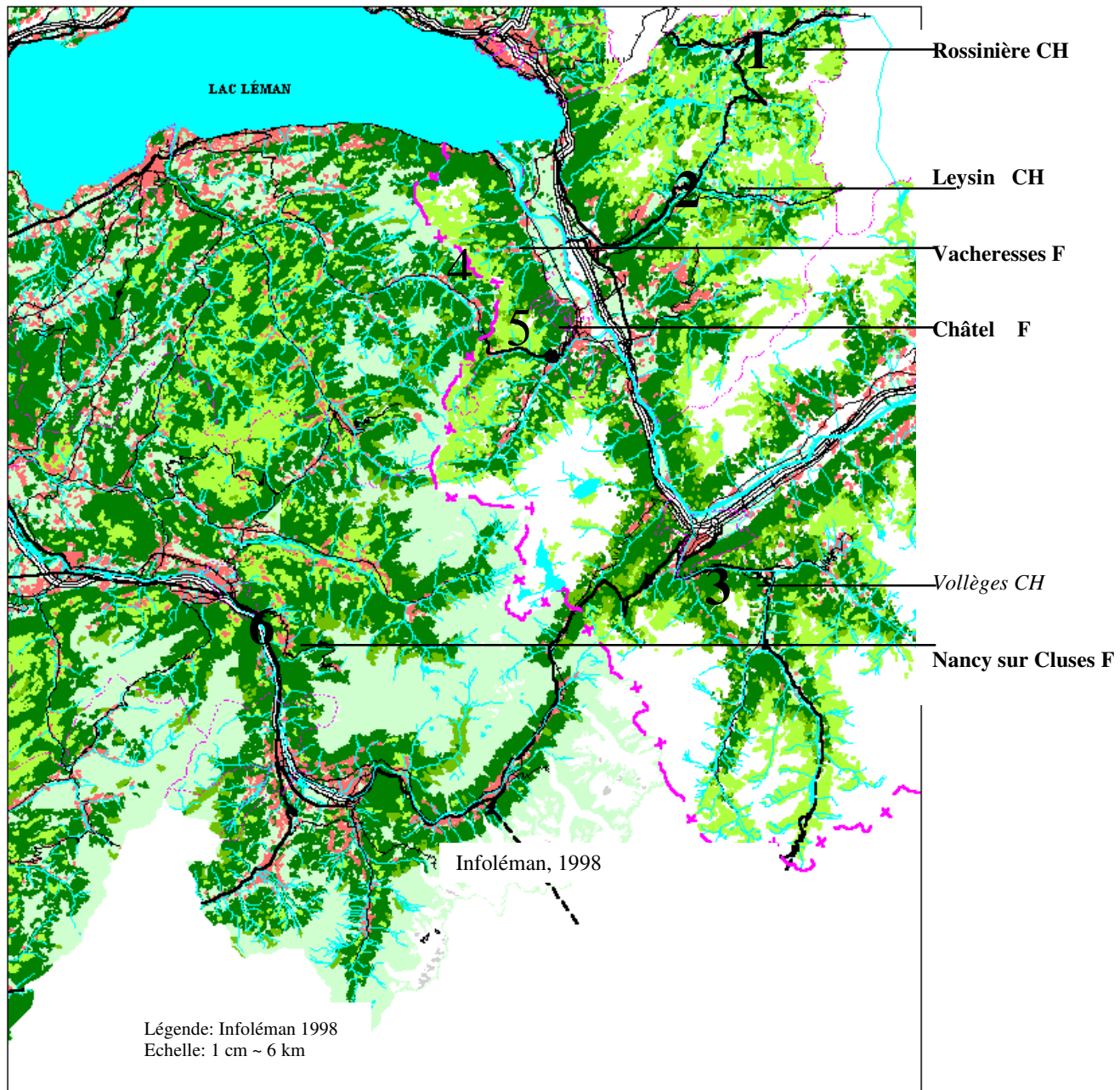
**Six Communes
in the selected regions of
Vaud, Valais and Haute Savoie**



-  Selected Communes
-  Haute Savoie
-  Valais
-  Vaud

Figure 7

Localization of the six Communes selected as study sites



- Pastures
- Forest cover
- Water
- Clearings

Figure 8

**Territorial data for the final selection of six Communes
in France (Haute Savoie) and Switzerland (cantons of Vaud and Valais)**

Commune	Socio/econ. Type *	Ha. Commune	Ha. Forests	Ha. Com. For.	Demo. Trends
Châtel Haute Savoie France	3	3219	1705	737	1193 growing
Leysin Vaud Switzerland	3	1841	785	720	2520 growing
Vacheresse Haute Savoie France	2	3102	1717	1075	605 slow growth
Vollèges Valais Switzerland	2	1793	975	965	1401 growing
Nancy / Cluses Haute-Savoie France	1 / 4	1422	911	636	357 slow growth
Rossinière Vaud Switzerland	1 / 2	2324	1155	693	487 receding – tends to stabilize

The socio-economic types (second column) are described above, for each one of the three types we selected one Commune per country (Switzerland and France)

The third column, gives the hectares of the total territory administrated by the Communes

The fourth column gives the hectares of forest cover in each Commune selected

The fifth column gives the number of forested hectares owned by the Commune

And the last column the number of inhabitants given by the latest census available (around 2000) and the demographic trends (more or less growing – stable or diminishing)

Our objective with the selection process of the 20 Communes and then 6 sites of study was not to inquire targeted and recognized cases of “participation”, but to observe the average background situation of alpine people’s relationship with their Commune’s forests. However, order to maximize the probability of finding residents interested in local forests, we chose Communes where forests are a substantial part of the territory, where most of that forested land is of communal ownership, and where forests are used for multiple uses of potentially conflictive purposes. We furthermore chose to study a selection of Communes that illustrated to some extent the diversity of socio-economic, demographic and geographical situations of alpine Communes.

B. Interview methods for listening to the actor in “place”

1) Pilot study

We conducted first a pilot study in Sixt Fer à Cheval (Haute-Savoie, France), and started by conducting a series of interviews with the regional Forest Services in both France and Switzerland. From the pilot study we drew the following lessons:

The need to situate the communal forest as part of a territory and landscape which include non forest-land uses and qualities and land of different ownerships;

The timber revenue from the communal forest is low but still constitutes a source of forest related jobs;

That we needed to be aware of the informal local forest based economy – of the subsistence value, as well as the patrimonial, aesthetic and tourism related values;

That people tend to be very talkative when addressed with questions about the place where they live, the profession they practice and in general when approaching the theme of the local forest;

The need to guide the discussion in order to produce results useful for a comparative analysis.

2) Interview methods:

For the final selection of six Communes we have conducted interviews with between nine and fourteen local actors (residents, users and managers of communal forests) for an average duration of about 1h.15, along the following semi-structured thematic interview guide:

- 1) *Perceptions about the forest*
- 2) *Forest uses and users*
- 3) *Forest economy*
- 4) *Forest management*
- 5) *Local governance*
- 6) *Visions for the future*

We have presented this set of six themes at the beginning of each interview. For each interview the questions relative to these topics have then been adapted to the interviewee, the situation of the meeting and to the flow of discussion. For each Commune, we have interviewed people working in the primary, the secondary and the tertiary sectors. We used mostly snow-ball sampling methods to select interviewees (starting with the local forester’s contacts), but for about one-quarter of the interviewees we randomly selected respondents during field observation, in order to ensure diversity along age, gender and socio-economic and political categories. We have conducted 65 interviews with local actors for the final selection of six Communes. All interviews have been transcribed as close as possible to the original discourse.

We differentiated three interview steps:

- a) First, with the local foresters (18 foresters), who helped in the selection of the research sites;

- b) Second, with the residents and/or workers or regular users of the final selection of six Communes, inquiring about their perceptions and diverse modes of interactions;
- c) Third, with local actors who are involved in a particular participation process, more or less directly related to the communal forest.

Most actors interviewed were full time residents in the Communes selected (56 out of 65), the nine remaining were working in the Commune.

We used the snowball and random field encounter interviewee selection methods. We started in all Communes with an interview of the local forest agent, and asked him at the end of his own interview for contacts of local actors he thought we could also interview. Contacted by telephone we asked for an appointment at a place in their Commune of residency or/and work. We pursued the snowball selection of further informants with some of them and complemented our set of informants with a few spontaneously encountered people met during our visits. By this on site more random kind of selection, we tried to bring gender, occupational, age and socio-political variation in our sample of informants.

Many informants did not like the idea to be taped, nor to see me writing constantly notes, while others could well cope with it and felt even valued by this willingness not to lose any one of their words. It was useful to tape some interviews, and do some very tedious analysis of the taped discussion, including for self-critically assessing the interview method. Some informants preferred to remain anonymous, while others announced their identities upfront. It was useful to adapt to these diverse behaviors, to put the informant at ease from the start on (the beginning being the most critical and difficult moment in the interview). We offered the informants access to their interview's transcript – some were interested in it others not, some returned the notes with some corrections. We promised to return at some point with some of the research's results, many expressed interest to know about these, and learn also from the other Communes. We learned also that people when talking about the forest became easily personal – but also that they often mentioned the forest as a place they live in with close people (mostly family or kinship relations). Talking to a stranger about these personal perceptions – and local interactions required trust. For creating this climate of trust, it was important to explicit the precautions we take with the use of the collected data (ensuring confidentiality, showing at some point results of the research). It was also important to avoid the use of technical words in the questions, and to show that we had no preconceived idea about what the interviewed should say, did not judge their knowledge nor their values, and were not trying to convince them of anything, but were willing to listen and learn from them. We had to create this trust already on the phone – as we contacted the majority of interviews first by telephone, to ask for the permission to meet and talk about their Commune's forest and their management, and to arrange a meeting time and place. Out of the over sixty informants contacted by telephone only two refused to meet, for both cases it was in Communes, where it turned out that there were quite important forest conflicts.

Following these open, semi-structured interviews, we enhanced our background understanding of the region by a series of complementary interviews and interactive opportunities:

- Twenty interviews with residents and local users in two other Communes in valley and urban settings, one in Haute Savoie (les Houches) and one in Valais (Vernayaz),
- Five interviews with district and regional forestry administrators (for Haute-Savoie, Valais and the canton of Vaud).
- We were also involved in a more research-action type of approach participation processes taking place in the larger-scale transboundary sampling area of 79 Communes - one aimed at the creation of a new national parc in Switzerland (Le Parc Naturel des Muverans in Valais) and another transboundary Initiative (French, Swiss and Italian) which federates

many local organizations into the association Pro-Mont-Blanc, aiming at the conservation and sustainable development of the Mont-Blanc region.

INTERVIEW GUIDE for the residents in the core sample of six Communes

The main research question is:

How do residents perceive their communal forests and how do they take part in their management, in the varied contexts of a selection of alpine Communes?

In order to address this question we have structured the interviews and their analysis along the following more precise questions:

1. *What are the different local actors' history and place specific **perceptions of their Commune's forest**, of the state – functions and values of these forests?*
2. *What are the uses and **conflicts in uses, interests and values** various actors associate with the communal forests?*
3. *What are local actors' varied perceptions of and involvement in **the local forest economy** (subsistence and market economy – formal and informal)?*
4. *What are the local actors' perceptions of and involvement in the **management of communally owned forests**?*
5. *How do various local actors perceive and take part in **communal governance** – concerning land use and related natural resources?*
6. *What **visions** do local actors express for the future of their communal forests – what forest values are they associating with their prospective or ideal visions?*

Inferring from the six questions, directly to the interviewees, we have two more questions in the analysis of the data:

7. *Through what **types of formal and informal social interactions** do local people get involved in the management of local natural and forest resources?*
8. *What **organized participation processes**, addressing at least partly communal forest management, are there in the Communes: who takes part, why and how?*

The eight questions above were not asked precisely in these terms in the interviews, but adapted orally to the circumstances and the actor encountered. We did not want to preempt and bias the spontaneous expression of the interviewed with concepts and perceptions that may be foreign to their perceptions and culture of communication. Our interviews style is inspired by the “naturalistic inquiry” which is “discovery oriented” in contrast to experimental research (Patton, 1980, 1990). Indeed we limited our own talking as much as possible; our main purposes being mainly to keep the interviewed follow her or his natural flow of thoughts. We just interrupted when they stopped and to reorient them in order to possibly cover the six themes presented as interview guide on a sheet of

paper in two words⁶²: *forest perceptions, forest uses, forest economy, forest management, communal governance, visions for the forest*. We used even the concepts of these themes carefully as they were already very general and misleading to people – rather than using the question: How do you perceive the forest? I would prefer a question like what is the forest you see, you go to, how do you feel about this forest, etc. ? Taking advantage of the place where we have the interview – I would ask these questions looking out the window at a view the interviewed must be most familiar with.

We wished to influence as little as possible the expression of the interviewed, not expressing more than we were following his / her thoughts, and asking questions that showed no judgment. The few judgment expressed were to confirm what the speaker said to build confidence and encourage him or her to pursue. Indeed because of the style of open and personal interviewing methods – mostly for a period of one to two hours – the speaker needs to test the interviewer too in order to ensure that he/she is understood, that his thoughts are valued, that she/ he can trust the interviewer not to misuse his/her inputs. Indeed, for J. Holstein and J. Gubrium:

“Both parties to the interview are necessarily and unavoidably active. Each is involved in meaning –making work. Meaning is not merely elicited by apt questioning nor simply transported through respondent replies; it is actively and communicatively assemble in the interview encounter (...) interview data are unavoidably collaborative, attempts to strip interviews of their interactional ingredients will be futile”. (1995: 4)

C. Data analysis inspired by a grounded theory approach

Our data and our analysis are mostly qualitative. Our preliminary research questions are open and we do not start with a precise set of hypotheses, but have two preliminary assumptions that guided our formulation of our thematic guide and background questions (as presented in the section E. above and adapted to each interview):

- The main reason motivating participatory processes at local levels are the expression, the resolution or avoidance of conflicts among actors’ resource uses and values;
- Residents involved in forestry at local levels tend to perceive forests as an integral part of various land uses (pastoral, etc.) and landscapes.

However, in a grounded theory approach the research problem is to be discovered along the field based inquiry – because the problem is supposed not to be the one of the researcher but the one of the setting of social interaction the researcher only chose to focus on⁶³. The method consists in entering a place of social interaction with little preconceived questions – the interviews are open and if the researcher has a question in mind – like we have – she/he does not ask the question directly (B. Glaser and A. Strauss, 1967; A. Strauss and J. Corbin 1990). In a grounded theory approach, the questions of research and the propositions or hypotheses emerge through a systematic analysis of the data (mostly discourse and observed behavior). Behind the incidents and the peculiar situation of the actors the objective is to crystallize underlying functions and patterns of interaction – and construct progressively through a comparative analysis categories and their properties or attributes. By elaborating proposals on the relations between these categories and their attributes, some core categories should eventually emerge, leading the researcher to refine his or her propositions and let thus emerge – from the ground - a theoretical framework. However this type of

⁶² This one sheet paper remaining with the interviewed announces the researcher’s identity, affiliation and the subject of the research “participation des populations locales dans la gestion des forêts communales” and our contacts.

⁶³ However, in any research process, the reasons of focusing on one setting presuppose at least some prior assumptions, which we have presented in the first part of this chapter’s section.

theory *generation* is more like a hypothesis formulation, which necessitates further research to be tested. This method of inquiry is well adapted for domains of research that have been little studied and for which it is therefore appropriate to have an open or more inductive type of research approach. The grounded theory approach encourages the use of multiple external theoretical frameworks to develop propositions, but their references need to be explicit and their relevance thoroughly tested by the discourse and behavior analyses.

Chapter IV.

Communal profiles

In France

- A. Vacheresse**
- B. Nancy sur Cluses**
- C. Châtel**

In Switzerland

- D. Leysin**
- E. Rossinière**
- F. Vollèges**

In this chapter we present a synthetic profile of the six Communes selected – situating the social interactions related with the Communal forest in the broader communal context and its social system. It is a descriptive account based on the interviews, on field observation, statistical and bibliographical research; analytical aspects are the ones of the informants.

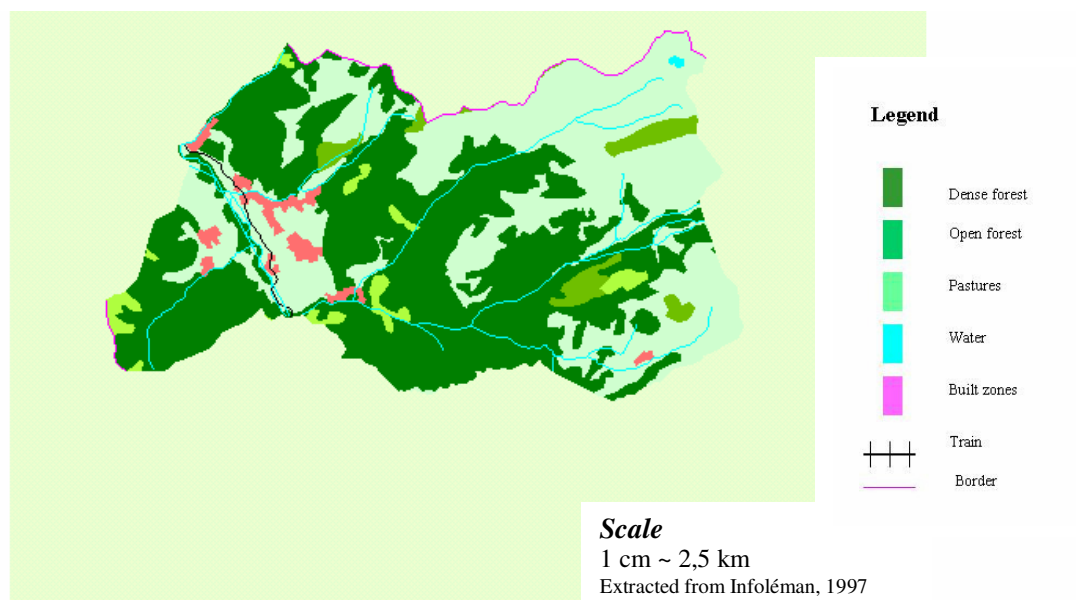
For each one of the Communes we present a table providing statistical data on:

- Communal surface in hectares
- Forest cover in hectares
- Communally owned forest cover in hectares
- Altitude
- Number of residents
- Economic type – relative importance of the primary, secondary and tertiary sectors

We present then one map showing the Commune and its main land uses – among which the relative importance of the forest. Follows a short description of the context - the geographical, socio-economic and historical situation of the Commune, and its main forestry characteristics. This section draws on statistical data obtained from state agencies, from literature, including forest management plans, and from some descriptive and contextual information obtained through the interviews.

A. Vacheresse (Haute-Savoie, France)

Communal surface :	3102 ha ¹ .
Forest cover	1717 ha.
Communal forest cover	1075 ha.
Altitude:	Mid range mountain 1020 m. – 2432 m., annual precipitation: 1621 mm,
Residents:	614 (INSEE, 2003), 606 en 1999 (INCREASE)
Economic type:	Active population: 296 (2003) And 234 in 1990 Jobs 26 in the commune among which 16 in the tertiary sector (4 hotels-restaurants and one elderly home) 25 farms in 2000 (against 49 in 1988) 1 sawmill employing about ten people



Context:

The actual population of 614 inhabitants is on a slow raise spread over six villages in the Commune. The highest population of Vacheresse was 1200 people in the XIX th. century. There is little tourism, mostly for trekking in the summer (4 hotels-restaurants, three bed and breakfasts and an elderly home), and few recreational uses of the forest. A retirement home of 40 beds has created new employment and income.

Vacheresse is a mountain forest Commune of Haute Savoie – covering 3102 hectares of which over two thirds are under forest cover. Most of this forest (1075 hectare) is of communal property (the rest being private). The Commune relatively low altitudinal range gives it a characteristic mixed deciduous and coniferous forest, beech constituting an important part of the lower altitudinal forest.⁶⁴ The forest cover is growing – mostly on abandoned pastures: in 1860, there were only 705 hectares of forests.⁶⁵

In the past Vacheressed used the river – la Dranse - to float the wood down the valley, up to the city near the Geneva Lake, Thonon. Napoléon III wanted since 1860 improve this floating technic with a hauling path between two places in the Commune (Feu Courbe and Bioge) with credits from the Emperor and of Thonon.⁶⁶ The communal flag represents three spruces.

The Commune has a rural character with an active primary sector (25 farms), a sawmill employing about ten people, and much part time wood and fuelwood related occupations. Between 1979 and 1996, the forest of Vacheresse produced 7390 m³ of fuelwood. The communal forest plan (1979-1993) says that it is necessary to continue this activity of beech extraction for fuelwood in order to maintain the spruce in the stands.

Vacheresse has a hunting reserve of 800 hectares with a varied wildlife including ibex that after their introduction have reproduced to high numbers. Vacheresse has also a nature reserve – classed as biotope - in the French environmental legislation. The biotope Bise straddles over 400 hectares the border with the nearby Commune of Chapelle d'Abondance. Most of this biotope is in mountain pastures or above the tree line. The biotope is a legacy of the former mayor, while the actual was in favor of creating a skiing resort in the same place of Bise. This development project was eventually abandoned also because of high avalanches risks.

⁶⁴

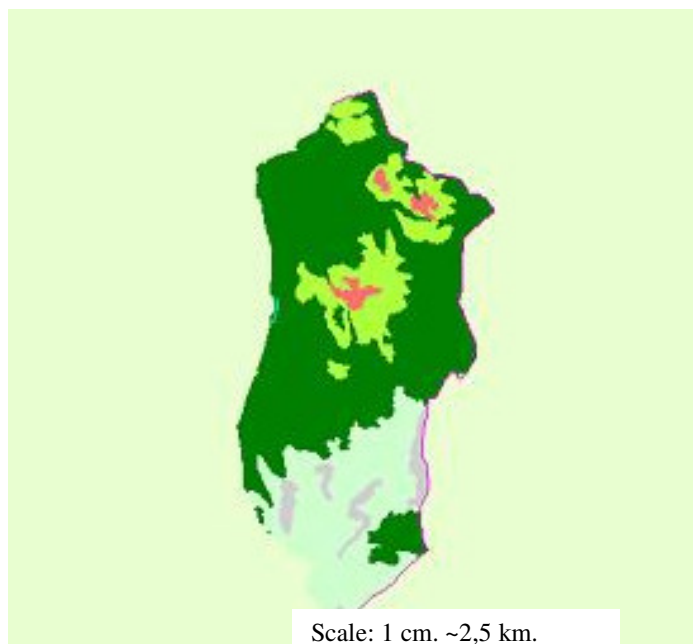
Of the 1075,46 ha, there is 887 ha of evergreen, (rotation cycle of fifteen years),

⁶⁵ The average annual rate of volume increment is of 3 m³ for one hectare by year. Therefore, on 809 hectares (the rest of the total 1074 ha. being considered as of marginal value) the increment is of 2427 m³/year

⁶⁶ Bonnevaux, Vacheresse, Chevenoz – Au Fil du Temps, M. Ticon – Annemasse.

B. Nancy sur Cluses (Haute-Savoie, France)

Commune surface:	1422 ha.
Forest coverage:	911 ha.
Communal forest:	636 ha.
Altitude:	Mid range mountain (mean 1300 m., from 690 to 1920 m.).
Annual precipitations:	1020 to 1570 mm.
Number of full residents:	348 (2003) and 357 (1999), until the eighties demographic decreases then increase during the nineties increase from 304 to 357 and now again a slight decrease
Main type of economic activity :	Active population: 177, mostly in the secondary sector Jobs all types confounded: in 1999: 17 and in 2003: 15 among which 2 in the tertiary sector, One farmer (This young full time farmer is not registered in the statistics of INSEE, even though he has 30 cows.)



Scale: 1 cm. ~2,5 km.
Extracted from Infoléman, 1997

Legend

	Dense forest
	Open forest
	Pastures
	Water
	Built zones
	Train
	Border

Context

The territory includes seven villages, a small skiing resort (four ski lifts) which cannot function all winter season round due to insufficient snow. It is the Commune, which owns and manages the skiing infrastructures of the upper village Romme. In this village two small hotels offer about 30 rooms, the village counts some secondary residencies. There is no other shop in the Commune.

Nancy sur Cluses has a remarkable forestry history with a communal economy, which was for long entirely tributary on forest revenues. However, since the beginning of the sixties, the main occupation and source of revenue of the Nancherôts is in the metal tool processing [décolletage] industries of the valley of the Arve river.

The population of Nancy has for long decreased – from its maximum of 505 souls in 1561, it fluctuated since according to the illnesses and emigration with a constantly decreasing tendency until 1975, when there were only 208 residents left. Since then the Nancherôts, taking advantage of an improved mobility, better road connections to the valley, and good employment opportunities in the valley the population of Nancy tends again to increase to reach today some 357 permanent residents. Some young people and some retired people returned to Nancy after having left it for studying or professional reasons. The primary school counts today some 50 children; some 10 to 15 years ago they were only about ten.

All the communal forest is classed as production forest, some places have however a function of protection. There are no nature reserves or protected areas. The forest, which is not submitted to the Forest Regime, represents some 10 hectares – mostly ancient pastures recolonized by the forest. The proportions of tree species are: 45% of spruce, 46% fir, 9% of beech and other deciduous trees. The fir has a tendency of invading a little and the beech to decrease. The forest management plan of 1987-2006 announces a rotation plan of 18 years. The storm Vivian of 82-83 has taken some 26 000 m³ of timber – Lothar only 1200 m³.

The forest revenue represents still a substantial part of the communal revenue (about 25%) and there are no forest subsidies, but after Lothar as the Commune could not cut for a year it received compensation credit at 0% interest rate. Most residents associate the communal forest mainly to a productive forest, with relatively little importance given to recreational and conservation values. In less than half a century the communal income has become relatively modest, all the loggers have left – two of the three sawmills have closed and the once numerous carpenters have closed their shops.

According to the interviews, the history of the communal forests is the key to understand the current relationship of these Commune's people with their forest patrimony. It is the commoners families of the region, who, helped by their families lived in Paris and from merchant activities in Switzerland, Germany and Austria, who bought collectively in the beginning of the 15th century (1417) the forest from Nancy (from the Chartreux –de la Devote related with the Maison du Reposoir). Then the largest part of the property they bought in 1699 from the Duc of Savoie Amédée II for the sum of 13'200 Florins. The parchment of the sale agreement signed describing the property and the terms of the transaction with the signature of both the commoners from Nancy sur Cluses and the Duc de Savoie is kept in the townhouse of the Commune and can still be seen. The Duc de Savoie had agreed to sell some of his land for having lost too much of his resources in the wars. The Nancherôts still bought a third but smaller acquisition from the Abbaye de Sixt in 1766⁶⁷. These forest investments of the commoners responded mostly to their will to disenfranchise

⁶⁷ Or in 1732, « Itinéraires de Découverte – Nancy sur Cluses, Pays de Borne et Bargy »

from the Duc de Savoie and the clerks, the latter, however, sold their property against the Nancherôts' promise to keep paying the tithe.

"All this together, it is our ancestors – also my 10th. generation of grand-parents, who contributed to the acquisition of these woods. All these parcels were their property. They have bled themselves white, with their families from Paris, and their people peddling in Germany, Switzerland and Austria. Nancy was the land of the hawkers, many have made fortune and have given a lot to their home parish" (3).⁶⁸

Nancy – Romme sur Cluses Village Haut Savoyard, Gilbert Maistre et al, Lescuyer et Fils, Lyon, undated, out of print.

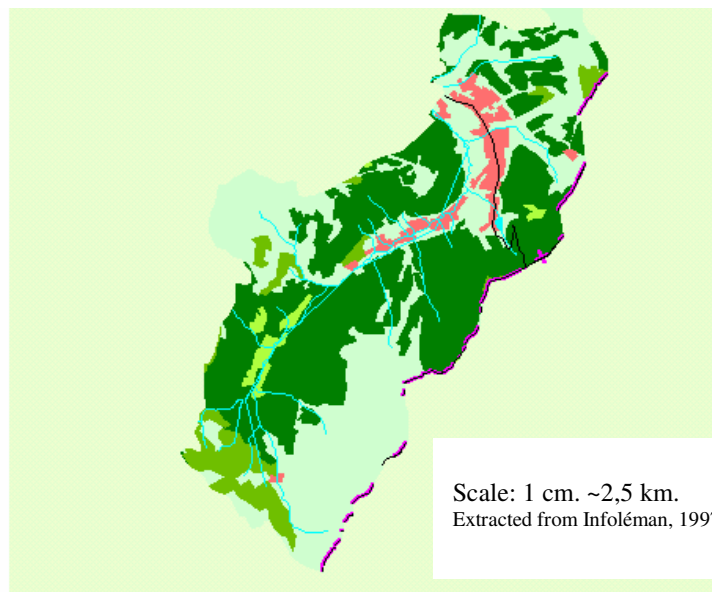
⁶⁸ *"Tout cela réuni ce sont nos ancêtres – ce sont aussi mes aïeuls de 10ème génération, mon petit aïeul était syndic de Nancy - qui ont contribué à l'achat de ces bois. Toutes ces parcelles c'était leur propriété, ils se sont saignés à blanc avec leurs familles à Paris ou des colporteurs en Allemagne, Suisse et en Autriche. Nancy était le pays des colporteurs, nombreux sont ceux qui ont fait fortune et ont donné beaucoup à leur paroisse d'origine." (3)*

C. Châtel (Haute-Savoie, France)

Commune surface :	3219 ha.
Forest cover	1705 ha.
Surface forêt communale	737 ha.
Altitude du chef lieu:	Alpine 1048-2432 m..
Precipitation :	1027 mm.
Residents (full time)	1328 (INSEE,2003) against 1255 in 1990, increasing pop.
Economic type	Active population: 751 in 1990 and 606 in 1999. Jobs: 979 in 2003 against 545 in 1990. Most jobs are tourism related: 945 jobs are in the tertiary sector 2003. In 2003, there are about 36 farms ¹

¹ This number is announced on the site of the farming associations of the Val d'Abondance (www.valdabondance.com)

INSEE announces different numbers: 41 farms in 2000 against 50 in 1988. According to the interviews there are about 32 farms left in 2003



Legend

- Dense forest
- Open forest
- Pastures
- Water
- Built zones
- Train
- Border

Context

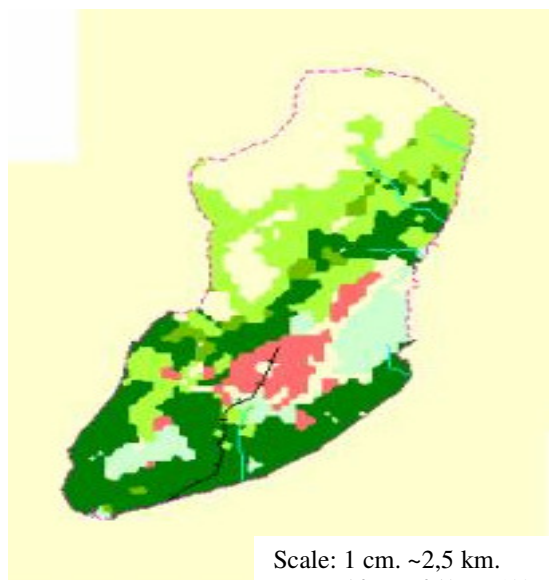
The Commune of Châtel has about 1193 inhabitants, its population is growing substantially and its economic activity is mainly based upon tourism (30 hotels –20 000 beds). Ski is the main attraction of the resort: 48 skiing slopes totaling some 83 kilometers. Agriculture remains an important sector – with 32 farms in activity (according to the interviews i.e. footnote 40), and forest and wood based economic activities are still the basis or a contribution to some local people's livelihoods.

Châtel is situated at the highest point of the Valley d'Abondance just before the pass of Morgins, going into Switzerland. The valley has been inhabited since the fifth century by the Burgondes. It is in 516 that the king of the Burgondes gave the territory to monks of Augustin – and the Valley, up to Châtel was for several centuries under strong religious influence – related to a monastery of the nearby Commune of Chapelle d'Abondance. Local agriculture – first mainly for sheep and later for cow rearing had to feed these monasteries. This activity has marked local landscapes, architecture and culture until nowadays. It is since the end of the XIXth century that Châtel attracts tourists – first with the development of thermal bathes and since after World War II it developed into a famous winter resort with a large offer in skiing infrastructure. Interviews and the material of publicity produced by the Commune and its office of tourism show that Châtel continues to value both tourism and agricultural activities. This mixed occupation is integrated in the very social organization of the place as, according to seasons and the times of the day, most residents working in the Commune switch from being farmer, ski teacher, carpenter, builder, shopkeeper, cook, etc. The local economy has been relatively prosperous if one considers the continuously population and the fact that the great majority of the inhabitants work in the Commune.

Out of a territory of 3219 hectares, 1705 hectares are forested land, and 737 of these are of communal property. With a mean altitude of 1450 meters (max. at 1873 m. and min. at 1060 m.) the vegetation is of mountain and sub-Alpine type (mean precipitation 1900 mm.). Most of the trees are evergreens spruce (77%) and fir (4%). The protection function of the forest is the priority for 371 ha of communal forest and 366 ha. are managed mainly for production. The mean annual extraction amount (possibility) has been estimated at 6500 m³ – or 49 ha. to be cut on an annual basis (rotation of 16-18 years), with an extraction proportion under 30% of the volume. In practice, however, the average yearly volume extracted has been about 3808 m³ over the last 30 years of which about 30 % under the form of dead wood. Forest management is of the "futaie jardinée" type (selective thinning). Lothar has taken 10 000 m³ of timber, the greatest part of which in the forest above the village. These logs have not been removed yet and the zone is perceived as a risk for log and rock fall, as well as for the progressing damages of the bark beetle. The damaged zone has a great visual impact.

F. Leysin (Vaud, Switzerland)

Communal surface :	1841 ha - 1853 ha (SCRIS) ⁶⁹
Forest Surface	1426 ha – or between 685 –785 ⁷⁰
Communal Forest Surface	720 ha (Service forestier, including Charbonnière – communal forest in Ormont Dessus.
Altitude	1260-1853 m. mid-range mountain
Residents (2000)	2998 in 2000 against 2057 in 1980 (Service cantonal de la statistique, 2000) INCREASING, however the difference is mostly due to incoming foreign students staying for the duration of their studies
Economic type	Active population: 1208 in the year 2000 against 1111 in 1980, over two thirds of the active population works in Leysin Main sector tertiary: 83,1% Secondary: 13,6 %, Primary: 3,3 %



Legend



⁶⁹ Numbers vary according to the source, the first are from the Forest Service and the second from the Service Cantonal de recherche et d'informations statistiques (SCRIS, Lausanne)

⁷⁰ According to the Statistical Office of the Canton de Vaud: 37% of the territory of the commune is forested (which brings it to 685) against, 33 % farming land, and 7% urban (habitat and infrastructure) and 22% unproductive. It is the latter category, which includes some unproductive woods, which makes the difference with the second numbers announced by the forest services.

Context

Leysin is situated in the medium altitudinal alpine areas of the canton de Vaud on an open plateau at 1263 meters. The communal territory is of about 1850 hectares, out of which about 785 ha. are forests, including 550 ha. of communal forest property. The Commune of Leysin owns in addition to these 550 ha, 170 ha. of a forest called Les Charbonnières, situated in the nearby Commune of Ormont-Dessous. Leysin owns therefore approximately a total forest area of 720 hectares⁷¹.

The forests of Leysin are mostly valued for their protection and recreation roles. Their production role is nowadays minimal, but was in the past quite important. The storm Lothar damaged mostly the forest of Les Charbonnières, about 3800 m³ of timber was damaged, of which some 2900 m³ have been removed since.

There is a natural reserve of 300 ha which the Commune leased in 1981 to the Swiss environmental protection association (Ligue Suisse de la Protection de la Nature or Pro-Natura) for a 50 years period. The reserve is part of the Federal Inventory of Landscapes of National Importance and is submitted to a total protection. Most of this reserve is above the timberline.

Some 2998 full residents inhabit the main (and only) village of Leysin, with a rapidly growing foreign population. Out of the 1160 active residents, 818 work in the Commune, mostly in the tertiary sector. We note the marginality of the primary sector, occupying only 3,3 % of the active population of Leysin. The Commune has an urban character with its many hotels it can hosts 12 000 visitors. About 90% of the local economy is based on tourism, 65% of which are earned over the winter season, and 35% during the summer. There are about 160 kilometers of foot and biking trails and there are many sport facilities. The international reputation of Leysin started at the beginning of the 20th century when the train connection to the nearest city in the Valley du Rhône, Aigle, was built. Leysin developed at the same into a great sanatorium centre. In 1930 Leysin was inhabited by 5698 people, of which 3000 were patients. The health tourism reputation of Leysin is partly due to Thomas Malthus who developed its theory of population in 1789 while studying the longevity of Leysin's population. He thought that Leysenouds' health was in great part due to the Commune's exceptional sun exposition and overall favorable climatic situation. In the late fifties the Commune converted some of its hospitals into hotels and started to develop winter tourism by building a cable lift to the Tour d'Aï-Berneuse. In the sixties Leysin started developing the educational sectors with the installation of the American School.

Nowadays, Leysin counts several international schools, hosting some 1000 students. Leysin totals about 4000 residents living most of the year in the Commune, out of which maybe one-fourth have family origins in the Commune. Tourism incomes are presently dropping – winter tourism declining partly because of irregular snow conditions; several hotels have closed (accounting to a loss of some 500 beds). The Commune wishes actually to recover its attraction, one of the proposed means being the prolongation of its train tracks to reach across a forested slope to its mountain summits of La Berneuse. However, there is substantial local opposition to this project and at the time of the interviews the government of the canton de Vaud had yet not approved the project⁷². All the skiing domain is on communal land and there are great interests in Leysin for developing infrastructures to connect its skiing domain with the one of nearby resorts (Les Roches, Les

⁷¹ We note in fact great statistical discrepancies in these land coverage estimates according to the source (i.e. footnote above)

⁷² But the canton has given a positive advance notice (préavis), as did the Confederation in 1994. www.berneuse.ch/prolongement.htm

Mosses.), the train of la Berneuse would be one means to accomplish this goal, as would be the installation of artificial snow making engines, for ensuring connections at lower altitudes.

The primary sector has decreased over the years: while in 1930, some 244 people practiced agriculture there are now about 10-12 left, four of which use communal land for pastures. The Commune has no longer a sawmill but five wood-processing enterprises, counting some 35 employees, they work little with local timber, and the largest one of these enterprises is in financial difficulty. In the neighbor Commune of Le Sépey there is the nearest sawmill to Leysin, this enterprise is still dynamic and it works almost exclusively with local high quality timber, following it through the entire processing chain to the finished product, including the construction of luxurious wooden chalets built along the region's traditional know-how.

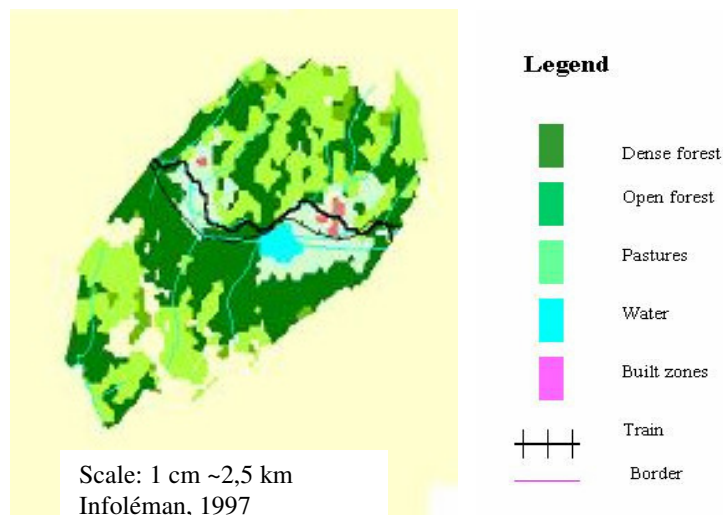
Timber was in the past one of Leysin's main economic resource, with a complex system regulating access to the communal forest' resources. In 1500-1600⁷³, preceding the constitution of Communes, these rights were allocated according to community property divisions called Sytes, each Syte had its school, pathways, etc.⁷⁴ Local timber was used intensively – including for the salt producing mine of Bex and for development of vine culture in the valley. Later the constituted Commune of Leysin bought the local customary rights to timber, pastures and chalets in order to become the exclusive owner. The Commune then leased rights temporarily to local farmers; these right holders were then called “ammodiateurs”. A municipal guard controlled uses; he distributed fines to who trespassed allocated rights. The flag of Leysin represents a magnificent spruce.

⁷³. The history of Leysin dates back to 515 when the royal abbey of St Maurice was constituted. Leysin situated behind a mountain slope cannot be seen from the Rhône valley, it was indeed originally built by local people who tried to escape turmoil pillaging the valley at the fall of the Roman Empire. During early medieval times, the valley of Ormont (of which Leysin is part) belonged to the Duché de Savoie. In 1475, after the wars of Bourgogne, the canton of Bern annexed Leysin. Ten years later Leysin however disenfranchises from Bern and in 1520 it elected its own council with 17 representatives. It will take Leysin another 200 years to separate from the parish of Aigle and to have its own church (Anex et al.)

⁷⁴ Paul Anex, M.C. Busset-Henchoz et al., *La Vallée des Ormonts – Ormont Dessus et Ormont Dessous*, H.L. Guignard, Lutry, 1994

E. Rossinière (Vaud, Switzerland)

Communal surface :	2334 ha. (SCRIS) or 2233 ha according to the site of Rossinière.ch
Forest coverage	1096 (SCRIS) or 1155 (FS)
Communal forest surface	693 or 642 ⁷⁵
Altitude of the main town:	920 m. highest altitude at the Mont Cray: 2070 m.
Residents (year round 2000)	507 – recent tendency to INCREASE slightly (1990: 479)
Economy:	Out of 232 active residents in 2000 (against 188 in 1980 ⁷⁶), 13,5 % are occupied in the primary sector, 19,1 % in the secondary, and 67,4 % in tertiary sector (SCRIS)



⁷⁵ The first numbers are from the Service Cantonal Nature et Paysage and the second from the web site of the commune: www.rossinière.ch

⁷⁶ The increasing activity is mostly due to women becoming active, while the trend for the men's active population decreases.

Context

Since the year 780- one finds the mention of Ransonery, which becomes Rossinière when it was attached to the Comté de Gruyère under the domination of Bern (imposing the protestant reform), before becoming an autonomous Commune of the Canton de Vaud, at the time of the revolution in Vaud, in 1798. Rossinière is the smallest of the three Communes of the Pays d'Enhaut along the valley of La Sarine. The Commune of Rossinière is constituted of three villages, besides the main village called Rossinière, there are two other smaller settlements, La Chaudanne and Tine. In 2000, its population counts 507 inhabitants (main residency) with a slight tendency to increase since 1980. Before this, since 1900, the demographic tendency has been decreasing. About 13% of the actual population is of a foreign citizenship, and the employment rate has been increasing from 1980 to 2000 by 23%, out of 227 actives residents, about 95 work in the Commune of which 67,4% are active in the tertiary sector, 19,1 % in the secondary and 13, 5 in the primary sector.

According to the interviews there are ten farmers in the Commune of Rossinière, mostly dairy farms, but the tendency decreases rapidly. The farms have between five and thirty cows. The Commune owns about 17 pastures. About all interviewed mention that the forest is growing into pastures, several mentioning that there are less and less farmers and that the remaining ones do not have the time to clear the invading forest.

The other local jobs are distributed between two hotels, four cafés-restaurants, one bakery and a grocery shop, a bank and a post office and the enterprises employing most people in the Commune – an elderly home and health center. In the secondary sector, there are two enterprises processing metal, and an electrical enterprise as well as a transport and an enterprise in general mechanics. Some people go to work to the nearest town in Château d'Oex – in relation with construction work or the tertiary sector – in its tourism sector, its regional hospital. Mostly the Commune has numerous carpenters practicing full or part time « *We are a great many small joiners, carpenters, at least thirty* »⁷⁷.

About half (47%) of the communal forest of slightly over 2000 hectares consists in forests, mostly of spruce, and on the Southern slopes of mixed deciduous/evergreen forests. In the Pays d'Enhaut, between 1980 and 1992, the forest cover has increased by 222 ha, while pastoral land decreased by 132 ha.⁷⁸

Timber was for long the main communal revenue – even of its richness thanks to which the inhabitants were exempted from paying taxes. The storm Lothar hitting on December 26th of 1999 caused however considerable forest damage: 20 000 m³ of timber fell, while the annual allowable cut at this time was of 2000 m³. The road leading to Rossinière was cut for three days. There was luckily no casualty, but the cleaning operations cost was 1,6 millions of Swiss Francs to the Commune, but the Confederation (Swiss government) reimbursed most of it and the intensive activity for repairing damages even induced some economic income – to the point that the Commune has not suffered economically, and some of its private enterprises have even known an improvement.

Rossinière is one of two Communes supporting the study of feasibility of a new protected area – a natural regional park or Biosphere Reserve. This initiative is supported by the regional office of tourism and a regional development association and Rossinière in particular as it considers that it needs to value its natural and cultural patrimony, in particular its rural – medium range mountain

⁷⁷ « On est énormément de petits menuisiers, charpentiers, une trentaine en tout cas » (3)

⁷⁸ www.pays-denhaut.ch, statistiques on the basis of SCRIS, Service Cantonal de Recherche et d'Information Statistique, Lausanne.

landscape, mostly for visitors interested in soft tourism, the altitude being too low for developing skiing tourism. The Commune enjoys a rich, mostly wood-based architecture and counts several chalets classed as historical monuments, among which one counts as the greatest and oldest Swiss chalet, constructed in 1754 and nowadays owned by the family of the famous painter Balthus. However, the former introduction of the lynx has spurred considerable conflicts among farmers, hunters and environmentalists and affects the project of the creation of a new protected area. One of the three Communes of the Pays d'Enhaut, Rougemont, has withdrawn from the project, as a result of these conflicts. Rossinière is the Commune - among the three of the Pays d'Enhaut – that has the least income. The subcommunal territorial identity of the Pays d'Enhaut collaboratively organizes public services, like the school, waste management; it is culturally integrated in local peoples' representations of the place. The identity of the Pays d'Enhaut has reinforced because of the Swiss mountain regional development subsidy policy⁷⁹. This regional approach, adopted by the actors promoting tourism as well as the Biosphere Reserve project, in which they believe would increase the attractiveness of the region and provide additional economic opportunities.

⁷⁹ The LIM policy “Loi sur l’aide aux Investissements dans les régions de Montagne (74,97) it concerns 54 mountain regions of Switzerland benefiting from an average annual credit of 40 million Swiss francs, see also note 72.

F. Vollèges (Valais, Switzerland)

Commune surface :	1793 ha ⁸⁰
Surface forestière	1005 ha ⁸¹
Forest coverage belonging to the bourgeoisie	965 ha of which 200 ha of forested pastures ⁸²
Altitude (town house)	836 m – mid range mountain area –
Residents:	1401, et en 1990: 1206, croissante
Economy:	Out of a 516 active people in 1990, 280 worked in the tertiary sector, 176 in the secondary and 37 in the primary (farming) – (estimated 3 full time) ⁸³



⁸⁰ Annuaire Statistique du Canton du Valais, Département des Finances et de l'Economie, Dec.2000, p. 108

⁸¹ ibid

⁸² Service des Forêts et du Paysage du Canton du Valais

⁸³ Annuaire Statistique du Canton du Valais, Département des Finances et de l'Economie, Décembre 2000, p. 130. These numbers have changed considerably since 1990, interviews shows that the number of people occupied in the primary sector has at least halved. Accordingly, there are at the end of 2004 about fifteen small and medium range farms left, while statistics from the canton of Valais announce that in 1996 there were 53 farms (Annuaire Statistique du Canton du Valais, 2000, p. 214).

Context

The Commune of Vollèges is part of the Entremont region in Valais,⁸⁴ counts two villages: Vollèges (Plan), Levron, Etiez, Cries, Vens, Chemin-Dessus. Its landscape is rural it counts about fifteen small and medium size farms, but most of its 4001 inhabitants are occupied outside the Commune, in the near towns of Martigny and beyond and in the large nearby tourism resorts such as Verbier. Since 1955, Vollèges knows a quite regular demographic increase - thanks to an increased facility in transportations by road and train - but to a lesser rate than the near towns and resorts.

Nor tourism, nor transportation and hydroelectric development have benefited the Commune of Vollèges as they did for some of the nearby Communes. The Commune perceives indeed few revenues. The enterprises installed on the territory are four restaurants, two grocery shops, a postal office a bank and some small cafés hold in the pastures over the summer season, five carpenters and joiner and one milk cooperative. One primary school of about 200 pupils is situated in the main town of Vollèges.

About fifty-six percents of the Communes' administrative territory consist in forest, which are mostly owned by the bourgeoisie of Vollèges, a common property to about two thirds of the inhabitants of the Commune. In the higher elevations there are mostly forested pastures with larch, spruce and on the lower elevations, pine forest. Two hundred hectares of forested pastures are classed as protected landscape by the Canton. Over half of the forest (53%) of Vollèges is protection forests. The Commune has not avalanche risks but fears, land and mudslides and inundations (in relation with the torrent Merdenson). Since several years, the volume of timber produced has been a mean of 1100 m³, which is below the annual allowable cut of 1600 m³. On the volume cut, one third is used for providing the residents with affouage wood.

The about 439 hectares of farmed surface⁸⁵ serve mostly the raising of cows (in particular the typical local breed of the Vache d'Herens) and the production of milk partly transformed in the valley in cheese – among which the AOC labelled Entremont. The southern slopes have some vineyards. In the past the dry and sunny exposition allowed there the cultivation of various cereals, such as rye.

The Commune of Vollèges is dry; it has no everlasting snows, nor glaciers. The natural resource that caused most problems and conflicts in the Commune's history is water. Vollèges has developed and managed during centuries a system of bisses (small water ways) of about forty kilometers long to bring water from the nearby Commune of Bagnes (*environ quarante kilomètres de canaux d'irrigation*). Vollèges had to negotiate and defend its water rights sometimes in exchange of forest resources and promises in protecting some of its forests critical for water, which often created conflicts⁸⁶. In 1967, with the support of a hydroelectric enterprise of the upper valley (Forces Motrices de Mauvoisin) the Communes of Vollèges and Bagnes built the construction of an aqueduct of twelve kilometers bring the water from the lake of Louvie up to Vollèges.

Vollèges had silver, marble and fluorine mines, exploited until World War II. Today remains one

⁸⁴ Ce district rassemble six communes : Bourg Saint Pierre, Liddes, Orsières, Sembrancher (chef lieu), Vollèges et Bagnes

⁸⁵ Annuaire Statistique du Canton du Valais, Département des Finances et de l'Economie, Décembre 2000, p. 108, based on areal photographs taken on 1992 and 1997.

⁸⁶ La Bataille pour l'Eau, 500 ans de lutte sans trêve ni merci, Clément Bérard, Les Editions Monographic, Sierre, 1982

small slate quarry. The forested pastures of the Pass called *du Lein, des Planches* et du *Mont Chemin* are used for soft tourism related activities. A walking tour called *Sentier des Mines* (Mining path), explains with information boards, the history of the place. In the same upper forested pastures, two ponds have been restored in (1992): the *Goilly du Lein* and *Goilly des Planches*. Some clearings have been realized in the areas surrounding the ponds in order to valorize a biologically diverse flora and fauna, among which dragonflies, batrachians⁸⁷.

Vollèges was a crossroad of the Southern (Italian and French) and the Northern Alps. The pass of Lein was the only way to go or from Sion (upper Valley of the Rhône) to Italy, via the Pass of St Bernard⁸⁸ pour se rendre à Sion, and the pass of les Planches the way to go to Martigny. Indeed until the end of the XIXth. Century, the bottom of the valleys of la Dranse flowing into the Rhône was then quite inaccessible, with marshland and regular inundations. Vollèges, then linked to the seigniory of Bagnes, benefited from these routes, levying passage rights and developing commerce. The region was one of the most populated of the Valais until 1870 – when people started to migrate out of the country and to the cities and industrial centers until 1950. Since 1955, this tendency reversed, with the development of tourism, the tertiary economy and transportation.

⁸⁷ Olivier Guex et Nadège Uldry, *Octobre 99. « Outil de contrôle pour le suivi du Goilly du Lein et du Goilly des Planches »*, *Section Nature et Paysage du Valais, Arrondissement 7*.

⁸⁸ The pass of the Grand St- Bernard was used by Jules César in 58 B.C. Napoléon in 1800 passed there with an army of 40 000 men.

Chapter V

Local actors' perceptions of communal forests

A. Social categories structuring the interview analysis

B. Conflict analysis

C. Value analysis

D. Integrating the conflict and the value analyses

In order to gain a clearer understanding of each Commune as well as to enable cross-Commune comparisons, text mentioning “conflict” was noted in each interview transcript. This analysis created a “frequency” number of the times any kind of conflict was mentioned by that person. This simple frequency for each interview showed that some types of interviewees expressed more conflicts than others. This finding is discussed below.

The next step beyond listing the conflicts was to examine their content. Using the similarities of kinds of situations where interviewees mentioned a conflict, a list of types of conflicts was generated using the theory approach of Glaser (1992). From this list, we developed a structured set of categories of conflict types. The result was a set of categories of conflict types within which the specific instances mentioned by interviewees fit. One very interesting finding was the distinction between “multiple land use conflicts” and “forestry conflicts”.

Not only were some actors more likely to discuss conflicts than others, some conflicts were more likely to be mentioned than others. Since we were interested in finding conflicts in order to study the nature of local interactions with the communal forest, we counted the number of times a conflict type was mentioned in the interviews and kept track of who mentioned them (type of actor) and in which Commune. However, in order to correct for having one interviewee discuss a conflict a number of times and thus make it seem more frequent, we only counted the conflict type once for each interview. From this analysis, it was possible to develop a relative sense of which conflicts and conflict types were more likely to be mentioned by different types of actors and within different Communes. Therefore, we considered conflicts as relatively more important when many informants mentioned them. This inference of relative importance of local “public issues” (Price, 1992) is reasonable since the more a problem is discussed in the public forum, the more likely it is to engage the interest of actors and policy makers (Schattschneider 1960).

In the Appendix we present six tables, one per Commune, showing the detailed results of this analysis of local conflicts. One critical caveat is that only the fact that a conflict is mentioned is recorded, not the specific content of the conflicting situation as understood by the actors, nor whether different actors define and understand the conflict in the same way. From the later analysis of social interactions and collective action processes (Chapter VI) part of the meanings these conflicts have for different local actors and why these conflicts emerge in different local contexts becomes clearer. In the present chapter, this simple frequency analysis is useful because it allows us to estimate what conflicts (in terms of thematic categories) are more or less mentioned by different actors in different Communes. Thus, for each Commune the conflict analysis gives a picture of what kinds of issues are in the public arena and what types of actors are most concerned about this public discussion.

The fact that there is little expression of conflicts does not indicate that there is no problem or no conflicts perceived by stakeholders outside the selected informants and territory. For instance, in Châtel, urbanization is not considered as a conflict for most residents, because they live upon the development of tourism and related infrastructures and housing. Urbanization interests of the

residents occupied in tourism are, however, often perceived as conflicting by secondary home residents' interests, who rather seek to escape urbanized places for their leisure time. However, we did not interview visitors and had few secondary home residents in our sample, also because we interviewed people mostly outside the tourism season.

It is important to emphasize that in the interviews there were no explicit questions about "conflicts". Such direct questioning would be a violation of the grounded theory approach. Our intention was to let the expression of conflicts spontaneously emerge from the discourse of the interviewees. Had we directly asked about a specific conflict once it was mentioned by an actor in the interview with the next actor, we might have generated an exaggerated or biased expression of conflicts and suspicious feelings among informants about the research and its impacts on the local communities.

Since these interviews were conducted informally and face-to-face, it was possible to notice when a person became uncomfortable as discussing some issues. Sometimes, once there was a relationship of trust, it was possible to ask follow-up questions exploring the topic. Often the interviewed heard the question but did not react readily to it, but responded later in a less direct way. While these observations were included in the research notes as background information to keep the interviewer alert to the overall situation and atmosphere of the interview, such information was not used in the analysis of conflicts discussed here. Thus, a critical caveat in interpreting these findings is that the conflicts counted were only those specifically stated by an actor by using terms referring to a conflict of opinion or interest between actors (at least two persons). We distinguished in this respect a conflict from *a problem*.⁸⁹

A. Social categories structuring the analyses of the interviews

As noted in Chapter III, the interviewees were selected in advance and spontaneously during site visits. In order to ensure that a similar range of actors was interviewed in each Commune, actor-based information was organized as follows:

- The informant's identity (associated number);
- The type of interview conducted with the informant;
- The main occupation announced by the informant;
- The private or organizational context in which we met the informant;
- The gender and approximate age of the informant.

For each informant we coded the following information:

⁸⁹ The storm Lothar and the damage it caused to the forest and the communities is a *problem*. But the *conflict* arise when people disagree about what to do about the problem. For instance, the forest service may prefer to leave the grounded timber on the forest floor and wait for natural regeneration, whereas some municipals may prefer to remove it and to replant. We count then the same *conflict* theme – i.e. *sanitation after the storm* as a conflict, and this once for each interviewee (i.e. with a local forest agent and with a municipal).

Table 1: information on the interviewees

Type of interview 1. Pre-arranged and taped 2. Pre-arranged, non-taped 3. Spontaneous - Noting times of begin and end of interview, place of interview and additional situational observations.	Situation in which the informant presents her/himself 1. Municipality 2. Forest service 3. Local association (which) 4. Resident / Working 5. Office of tourism
Main Occupation 1. Farmers 2. Wood/forest workers 3. Tourism, teachers, retailers, other services 4. Industry, building and house-work - Noting the place of work	Gender Male or Female Approximate Age (estimation based: below or above 40) - Locating the place of residency

The names of the interviewed are not presented but associate to a number, in order to protect his/her identity (Table 2). We distinguish the interviews on invitation (contacted by phone and arranging an appointment) from the spontaneous interviews undertaken according to encounters in the field. Because the interviews on invitation lasted between one and two hours, while the spontaneous interviews lasted during 15 and 40 minutes, we could not give them the same weight in the analysis. We have between one and four spontaneous interviews per Commune. Informants were identified with a snowball sampling method, starting with the local forest guard. This explains why there are not the same numbers of persons interviewed in each occupational category, nor by age and gender (i.e., Figure 9, p. 88). We tried, however, to guide slightly the snowball sampling in order to meet persons from the various occupation, age,- gender categories. In addition, some informants were selected spontaneously according to more or less random field encounters. We did not interview quite the same number of people in each Commune. For the bigger Communes, like Châtel and Leysin, we interviewed respectively 13 and 12 persons. Whereas for the smaller Communes, a sample of 10 interviews was enough to start noticing redundancies and this number of in depth semi-structured qualitative interviews provided enough data for assessing the relationship between local actors and their communal forests. Table 2 below summarizes the main characteristics of the 65 interviews conducted across the final selection of six Communes.

Table 2: List of informants: identity number, age, occupation, Commune of residency, type of interview

Communes	< 40 age	Occupation	> 40 age	Occupation	Total actors /sectors
Châtel (F)	1 2 4* 5* 10 13	T F/T T A T/F A	3* 6 7* 8* 9 11 12	T A S S A F F	4 A 3 F 4 T 2 S
Total nb actors/age sectors	6	3 P // 3T	7	4 P // 3 TS	
Nancy/Cluses (F)	1 4* 5* 6 9	T T F A S	2 3 7 8 10	F/A F F F F	1 A 6 F 2 T 1 S
Total nb actors/age sectors	5	2 P // 3TS	5	5 P // 0 TS	
Vacheresse (F)	4 5 7	A T F	1 2* 3* 6 8 9 10	T T F F F T A	2 A 4 F 4 T
Total actors/age sectors	3	2 P // 1 T	7	4 P // 3 T	
Tot. actors/age/gender/sectors France (33)	14 3 / 11	7P // 7 TS	19 5 / 14	13 P // 6 TS	7 A / 13 F 10 T / 3 S
Rossinière (CH)	1 2 5 9 10	F T A A S	3 4 6* 7* 8	F T F/A S T	2 A 3 F 3 T 2 S
Total actors/age sectors	5	3 P // 2 TS	5	2 P // 3 TS	
Vollèges (CH)	3* 5* 6 10	T T T T	1 2 4 7 8 9	F T S T(A) A T	1 A 1 F 7 T 1 S
Total actors/age/sectors	4	4 T	6	2P // 4 TS	
Leysin (CH)	1 7 8 10	F F A T	2 3 4 5 6* 9 11 12	T F T T T ou S A F T	2 A 4 F 6 T
Total actors/age sectors	4	3 P // 1 T	8	3 P // 5 T	
Tot. actors/gender/age/sectors CH (32)	13 4 / 9	6 P // 7 T	19 4 / 15	7 P // 12 TS	5 A / 8 F 16 T / 3 S
Total actors (65)	27 7 / 20	13 P // 14 T	38 9 / 29	20 P // 18 TS	12 A / 21 F 26 T / 6 S

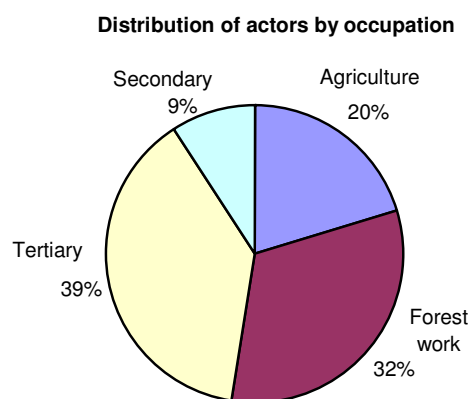
In the Table 2 above - in blue are the French Communes and in red the Swiss Communes

In pink are the women and in blue the men. The sign [*] indicates the spontaneous interviews

A stands for actors occupied in Agriculture, F for actors occupied in the Forestry sector, T for the Tertiary sector and S for the Secondary sector. The rows that show totals group the A and the F into the P (Primary sector) – and the T and S into the TS sectors (Tertiary and Secondary sectors).

The distribution of interviews by occupational group, for the six Communes, is as follows:

Figure 9



B. Conflict analysis

Based on the analysis of the interviews, the following thematic categories of conflicts are classified either as multiple land-use conflicts (resulting from various land uses that are in interface with the communal forest) or as forestry conflicts (resulting from forest economy, operation and management related conflicts).

I. Multiple land use conflicts are distinguished into six general categories applying to all Communes: *Recreation, Agriculture, Natural Risks, Conservation, Urbanization, Non timber forest product*. Each category is defined by a list of sub-categories, which are site-specific, and are fully listed for each Commune in the conflict tables given in Appendix.

1) Recreation: skiing infrastructures or practices damaging the forest; trekkers in the forest causing operational and safety problems to loggers or trekkers disturbed by loggers; access to forest treks for horseback riders; access to the forest by motorized vehicles (four wheels or motorbikes); garbage left by picnickers...

2) Agriculture: Conflicting browsing and forestry objectives; uses of forest or agriculture land roads by both farmers and loggers; agriculture decline; forest overgrowing pastures...

3) Natural Risks: Construction of protection infrastructures against avalanches; mitigation against fire hazards, inundations, earth and rock fall, wind and water borne erosion...

4) Conservation: Constitution or management of protected areas; protection of small biotopes, single trees or edges; water conservation; protection of rare species; reintroduction of species; mitigation against pollution or waste; relations with governmental and non-governmental environmental organizations...

5) Urbanization: Housing constructions, infrastructure development (for transportation – tourism or sports related activities), military...

6) Hunting and non-timber forest products: hunting, mushroom; berries; fodder...

II. Forestry conflicts concern three cross-communal categories: forest *operations*, forest *economy*; and forest *management*. For each we list some of the following sub-categories (i.e. site-specific sub-categories fully listed in Appendix).

1) Forest operations: Forest roads' construction; safety in forestry work; extraction methods and use of machinery; timber stocking sites; tree species selection; forest plantations and natural regeneration; amounts of extracted volumes; forest maintenance and sanitation; storm damage and forest restoration ...

2) Forest economy: Forest income; forest investment; forest jobs; local informal forest economy and global formal forest economy; relations between the forest sector and other economic sectors (tourism, etc.); access to subsidies; marketing of communal timber; use and valorization of local forest products...

3) Forest management: Forest planning; reconciling environmental with economic demands; recognition by experts of local knowledge; ownership and customary users' claims; communication (between foresters, residents and municipals); access to the forest; policing of forest uses...

Thematic variations

1) Multiple land-use conflicts:

The results across the six Communes for the six core categories of *multiple land use* conflicts are given in Table (3) below.

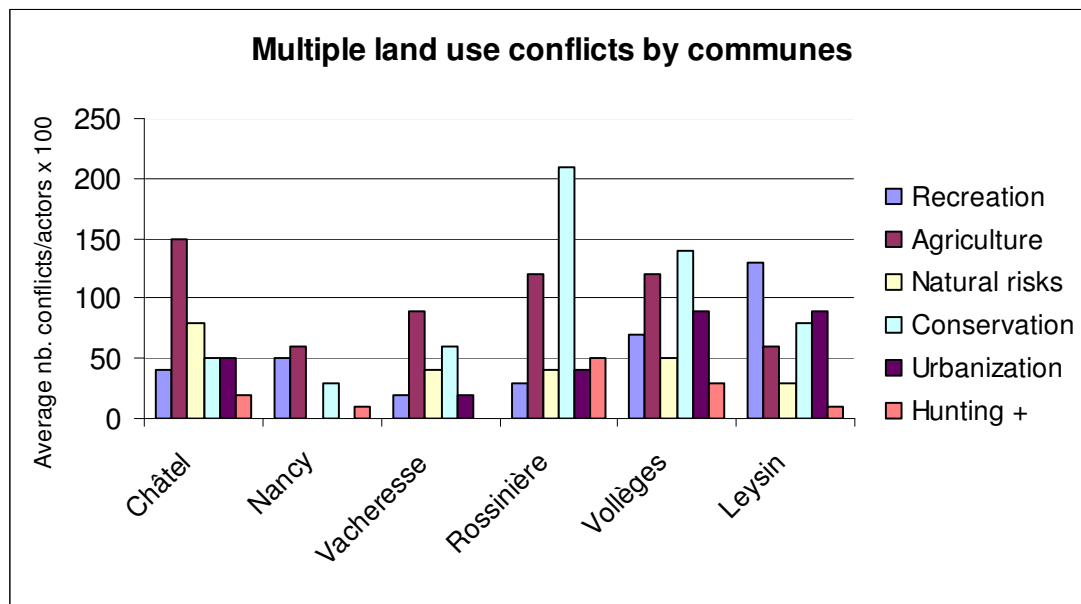
Table 3: Multiple land use conflicts / Commune

Communes	<i>Recreation (R)</i>	<i>Agricult-ure (A)</i>	<i>Natural ris (NR)</i>	<i>Conser-vation (C)</i>	<i>Urbani-zation (U)</i>	<i>Hunting+ NTFP (H)</i>	Total	Priorities
Châtel (13 interviews)	4/(5/0,4)	1/(19/1,5)	2/(10/0,8)	3/(7/0,5)	3/(7/0,5)	5/(2/0,2)	50/3,8	A/NR/C+U/R/H
Nancy / Cluses (10)	2/(5/0,5)	1/(6/0,6)	/0	3/(3/0,3)	/ 0	4/(1/0,1)	15/1,5	A/R/C/H
Vacheresse (10)	4/(2/0,2)	1/(9/0,9)	3/(4/0,4)	2/(6/0,6)	4/(2/0,2)	./ (0)	23/2,3	A/C/NR/R=U
Total F (33)	3/(12/0,4)	1/(34/1,0)	3/(14/0,4)	2/(16/0,5)	4/(9/0,3)	5/(3/0,1)	(88/2,7)	A/C/R=NR/U/H
Rossinière (10)	5/(3/0,3)	2/(12/1,2)	4/(4/0,4)	1/(21/2,1)	4/(4/0,4)	3/(5/0,5)	49/4,9	C/A/H/NR=U/R
Vollèges (10)	4/(7/0,7)	2/(12/1,2)	5/(5/0,5)	1/(14/1,4)	3/(9/0,9)	6/(3/0,3)	50/5,0	C/A/U/R/NR/H
Leysin (12)	1/(16/1,3)	4/(7/0,6)	5/(4/0,3)	3/(10/0,8)	2/(11/0,9)	6/(1/0,1)	49/4,1	R/U/C/A/NR/H
Total CH (32)	3/(26/0,8)	2/(31/1,0)	4 (13/0,4)	1/(45/1,4)	3/(24/0,8)	5/(9/0,3)	148/4,6	C/R/A/U/NR/H
Total (65)	2/(38/0,6)	1/(65/1,0)	4/(27/0,4)	1/(61/0,9)	3/(33/0,5)	5/(12/0,2)	236/3,6	A/C/R/U/NR/H

The first number in **bold** in the thematic columns indicates the order of importance of the six land use conflict themes – number 1 being the most important conflict in the corresponding Commune. The first number in the parenthesis is the total number of conflicts; the second number divides the first total number of conflicts by the number of actors interviewed (in order to obtain an average, for comparing the Communes in which we interviewed between 10 and 13 residents). The numbers highlighted in **blue** indicate results for the three Communes of the French sample and the **yellow** for the three Communes of the Swiss sample.

Across all six categories of the Table above, we see that frequencies for conflicts about **multiple land uses** are higher in the sample of the Swiss Communes than in the French Communes. In all French Communes (Châtel, Nancy sur Cluses, Vacheresse), conflicts in land uses concern mostly *agriculture* related activities. Whereas in the Swiss Communes (Rossinière, Vollèges, Leysin) there is a similar frequency of conflicts related to *agriculture*, there are substantially larger number of frequencies in conflicts related to *conservation*, as well as to *recreation* and *urbanization*, which explains the variation between the Swiss and French samples in total **multiple land uses** related conflicts (4,6 for Switzerland and 2,7 for France).

Figure 10



The Y axis shows the number of conflicts we counted in each Commune, divided by the number of actors interviewed in each Commune (since we have not interviewed the same number of actors in each Commune) and multiplied by 100 (in order to avoid numbers with decimals)

Figure 10 shows inter-communal variations for **multiple land use** conflicts. For the first category, *recreation*, it is Leysin, which has by far the highest frequency of conflicts. This result mirrors also the high *urbanization* related conflicts for this Commune. Indeed, this Commune has developed considerably tourism since long and its population is now divided about the project of extending a train line near a nature reserve and a forest considered to have a good biodiversity value, and which has been up to now relatively preserved (i.e. communal profile, Chapter IV).

For Rossinière it is mostly *conservation* issues, which are subject of controversy, the Commune being in the process of discussing the creation of a new protected area (possibly a Biosphere Reserve or and a Natural Regional Park). The Commune has experienced the reintroduction of the lynx that has created substantial controversy.

In Vollèges, farming related concerns related to the forest range high. Much of the common forest (forest belonging to the bourgeoisie) is pastured forest. While complementarities between forestry, pastoral and recreational uses are valued by all interviewed, and conflicts managed by the forest service, farmers still perceive that there are too many trees on the forested pastures and that pastoral uses are disturbed by picnickers, motorbikes and other visitors.

For Châtel, the interviewed expressed relatively few multiple land use conflicts for a large tourism resort. The reason may be that there is a local consensus about the desirability of tourism development and related urbanization, because many residents depend economically on this activity. Farmers in Châtel – who also benefit from the tourism sector (being at least seasonally active in the sector) - tend to complain only little about multiple use related conflicts but more about forestry conflicts. Indeed, farmers in Châtel show less commonality with forest workers than in more rural Communes, as they have turned away from forest related seasonal jobs to tourism related part time or seasonal occupations

Nancy sur Cluses has the lowest numbers of multiple land use conflicts. The residents of Nancy are mostly occupied in the valley's industries and there is therefore nowadays little pressure on the Commune's forest and farmland. The few conflicts mentioned in relation to recreation are by some residents saying that the municipality is not pro-active enough to develop tourism and recreation – including trails through the forest.

For Vacheresse the highest frequency of multiple land use conflicts has been expressed by the farming sector – mostly concerning the regulation, policing and the sharing of costs due to the construction and reparation of forest and pastoral roads. This conflict is also related to the marginalization of farmers from the municipality.

Across all six Communes, natural risk related conflicts are not expressed as important. Whether this means that there is little concern among local actors about them is discussible and will be checked also with the results from the value analysis in the next section.

Comparing results between the Communes, we see that the two Communes expressing the **most** conflicts about **multiple land uses** are the ones that have experienced most the benefits of non-timber related forest services: Rossinière and Vollèges. Rossinière experienced the storm Lothar, and many inhabitants voiced that this experience reminded them of the essential protection function of the forest. After Lothar, Rossinière was also encouraged to fully recognize the multiple benefits of forests in order to obtain federal subsidies and technical support from federal and cantonal forest services in order to realize forest restoration projects. Indeed, the granting of these subsidies was conditional on the application of forest projects aimed at valuing multiple forest benefits, in particular protection against natural risks. Rossinière also traditionally valued forests in relation with pastoral land uses (using woodfuel for processing cheese and for complementing livelihoods by selling timber logged over the winter season). In Vollèges, too we saw that the bourgeois forest is mostly a pastured open spruce and larch forest. Vollèges being situated in one of the sunniest and driest areas of the region, which makes forested pastures a more comfortable place for the livestock and its caretakers. The forested pastures of Vollèges have long attracted visitors, formerly caravans crossing the Alps and now trekkers and picnickers visiting from nearby cities and tourism resorts. While the bourgeoisie, the consortage (i.e communal profile chapter IV) have and do still take part in the management of the local resources for their multiple uses, the cantonal and district forest services play nowadays a greater role. However the two Communes differ substantially in their interest in forestry issues, Rossinière having in contrast to Vollèges a high quality forest and a strong forest economy, including a dynamic wood processing activity (several carpentry enterprises engaging about twenty residents). We see this difference reflected in the great contrast of numbers of forestry related conflicts expressed in the two Communes, showing less forestry interests in Vollèges than in Rossinière (i.e. Table 4 below).

Interestingly, the two Communes that express **least** conflicts about **multiple land uses** are the ones that are most dependent on communal forest revenues: Nancy sur Cluses and Vacheresse. The two Communes having a strong tourism sector, Châtel and Leysin are in between of the first group of Communes most concerned about multiple land use conflicts (Rossinière and Vollèges) and the ones least concerned (Nancy and Vacheresse). In fact both tourism oriented Communes have quite high frequencies of *recreation* and *urbanization* conflicts and to some extent also some conflicts with *conservation* interests. Châtel and Leysin show different results related to farming. In Leysin there are few farmers and fewer conflicts with *agriculture* related uses, while in Châtel where there are relatively many farmers, conflicts between farmers and forest workers are more frequent. The interviewed from Châtel (except for the forest workers) mentioned fewer conflicts in relation to *recreation*, *urbanization* and to *conservation* than informants from Leysin.

In general, across all Communes, there is a low conflict frequency on themes related to measures mitigating *natural risks*. Interviewees from Châtel expressed more natural risk conflicts out of concerns for a communal forest damaged by Lothar (1999) and now heavily infested by the Bark beetle. Indeed, damaged logs hanging over the village, lying on a quite inaccessible and steep slope, had not been removed at the time of the interviews and were perceived as threatening the village and the surrounding forest. Residents of the Swiss Commune Rossinière, who suffered even more from forest damages following Lothar than residents from Châtel, have had their forests cleaned and have now regained their confidence in their forests' capacity to regenerate. Indeed, four years after the storm Lothar, residents from Rossinière acknowledge natural risks related concern, but compared with Châtel, they express them less in terms of 'conflict'. Indeed in Rossinière, most interviewed expressed satisfaction with how their forest is being restored thanks to both forestry interventions (supported by cantonal and federal support) and by natural regeneration.

2) Forestry conflicts

Concerning **forestry conflicts** – and the associated categories of forestry *operations*, forest *economy* and forest *management*, the results for the six Communes are the following:

Table 4: Forestry conflicts / Commune

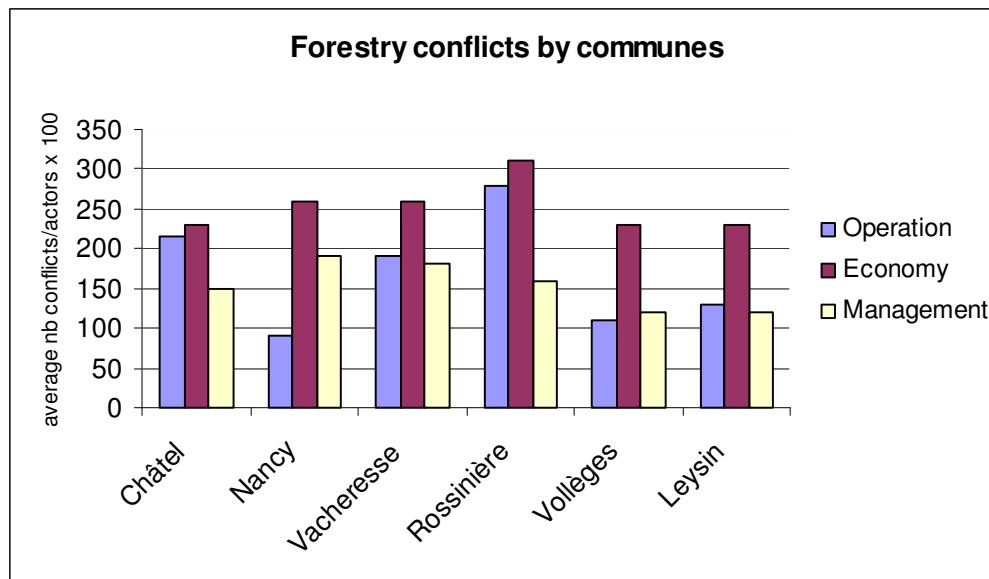
Communes/ Forestry	Forestry operations	Forest economy	Forest management	Total	Order of priorities
Châtel	2/ (28/2,2)	1/ (30/2,3)	3/ (19/1,5)	77/5,9	E / O / M
Nancy	3/ (9/0,9)	1 / (26/2,6)	2 / (19/1,9)	54/5,4	E / M / O
Vacheresse	2/ (19/1,9)	1/ (26/2,6)	3/ (18/1,8)	63/6,3	E / O / M
Total F	2/ (56/1,7)	1/ (82/2,5)	2/ (56/1,7)	194/5,9	E / O = M
Rossinière	2/ (28/2,8)	1/ (31/3,1)	3/ (16/1,6)	75/7,5	E / O / M
Vollèges	3/ (11/1,1)	1/ (23/2,3)	2/ (12/1,2)	46/4,6	E / M / O
Leysin	2/ (16/1,3)	1/ (27/2,3)	3/ (14/1,2)	57/4,8	E / O / M
Total CH	2/ (55/1,7)	1/ (81/2,5)	3/ (42/1,3)	178/5,6	E / O / M
Total	2/ (111/1,7)	1/ (163/2,5)	3/ (98/1,5)	372/5,7	E / O / M

(i.e. page 91 legend of Table 2 for the signification of the terms)

Forest *economy* related conflicts are the themes of conflicts most often expressed in all Communes, second come forest *operations* related themes and third, forest *management conflicts*. Nancy and Vollèges are the two Communes where there are more conflicts associated with forest *management* (Table 4, Figure 11). These Communes' profiles (Chapter IV) show that they have a history of disputed control over the communal forest property and its resources, between traditional forms of common property regimes (bourgeoisie/communiers) and State institutions. On the other hand, results show that these two Communes have presently relatively little concerns about forestry *operations*, which could mirror the fact that their residents have abandoned much of their interest in forestry, as they have turned to tertiary and secondary occupations in the Valley and nearby urban centers.

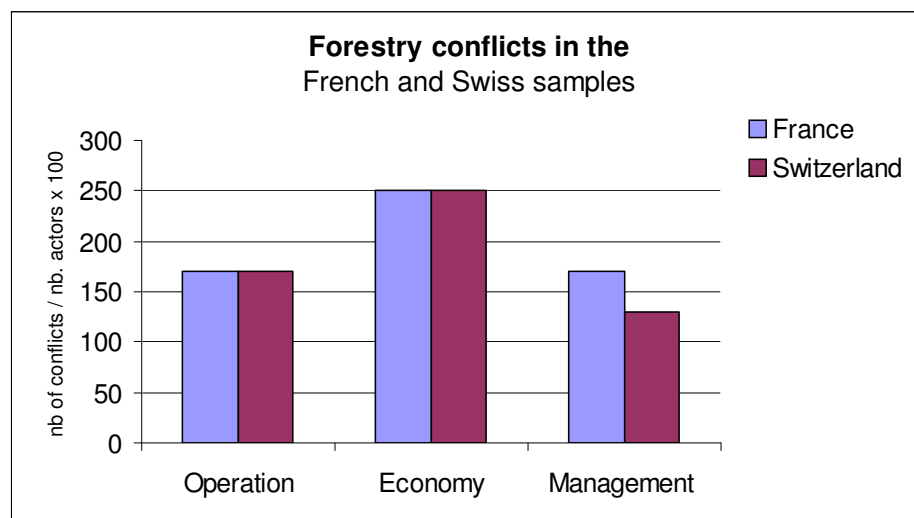
About the **forestry** related conflicts, it is the French Communes, which show most conflicts, whereas about **multiple land uses**, it is the Swiss sample (Figure 12). Comparing results between the six Communes, multiple land use conflicts (Table 3) vary more thematically and in their importance (i.e. frequencies given in Table 4). This indicates that multiple land use conflicts are more site-specific (Figure 10) than are the forestry conflicts (Figure 11).

Figure 11



For the Y axis, i.e. legend Figure 10

Figure 12

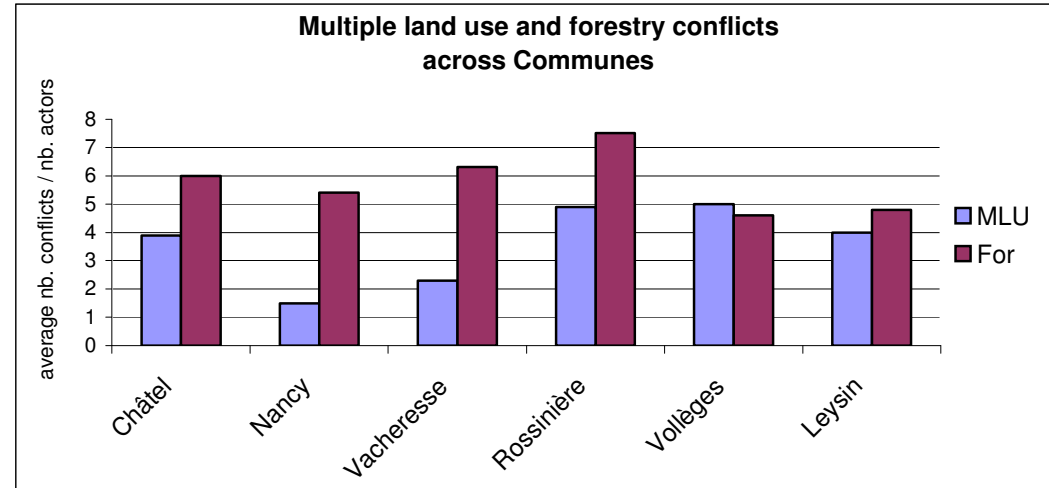


For the Y axis, i.e. legend Figure 10

Figure 12 above shows that the French sample has about the same number of expressed conflicts than the Swiss regarding forest operation and forest economy, and slightly more regarding forest management. Comparing the Communes for the relative importance of the multiple land uses versus the forestry conflicts, the French sample shows in total slightly more forestry conflicts than the Swiss sample, whereas the studied Swiss Communes have in total more multiple land use conflicts (Table 3, Figure 13). Figure 13 shows that the Communes which are more rural (least urbanized and tourism-oriented) have the least multiple land use conflicts (i.e. Nancy sur Cluses, Vacheresse). By contrast, the two Communes, which are in the medium position along the urbanization gradient (Vollèges and Rossinière), with a more diversified economic activity integrating rural and urban or tourism (mostly soft tourism activities), have more agriculture and

conservation conflicts, therefore a higher total of multiple use conflicts. In fact, the total of multiple use conflicts of these medium types of Communes are even higher than the ones of the more urbanized and tourism oriented Communes (Châtel and Leysin).

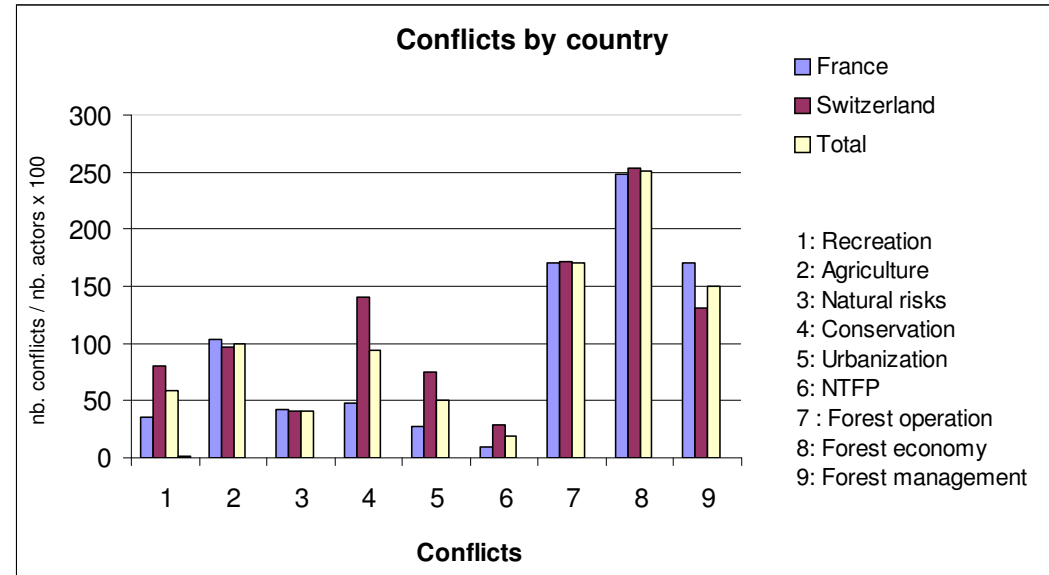
Figure 13



The Y axis gives the average number of Multiple Land Use conflicts (6 types) in blue and for FORestry conflicts (3 types) in purple.

Considering the differences observed in Figure 14, we see that the cross-country difference in **forestry** conflicts is for France mostly due to higher concerns about forest management, whereas for the Swiss sample, the difference is due to higher frequencies of **multiple land use** conflicts, in particular in relation to conservation, recreation *and* urbanization.

Figure 14



The Y axis shows the number of conflicts counted for each country, divided by the number of actors interviewed in each country sample. The result is then multiplied by 100 in order to avoid numbers with decimals.

Occupation based variations

Table 5 below shows for each Commune how actors classed by their main occupation expressed conflicts about **multiple land uses**:

Table 5: Multiple land-use conflicts by occupation and Commune

Actors/Sectors	Recreation					Agriculture					Natural risks				
	A	F	T	S	Tot	A	F	T	S	Tot	A	F	T	S	Tot
Châtel	1	2	2		5 0,4	14	3	2		19 1,5	2	4	2	2	10 0,8
Nancy		2	2	1	5 0,5	3	2	1		6 0,6					
Vacheresse:			2		2 0,2	1	4	4		9 0,9		2	2		4 0,4
Total F X 100	1 14	4 31	6 60	1 33	12 36	18 257	9 69	7 70		34 103	2 29	6 46	4 40	2 67	14 42
Rossinière :		1	1	1	3 0,3	4	4	4		12 1,2	1	2	1		4 0,4
Vollèges	2	1	3	1	7 0,7	4	1	5	2	12 1,2	1	1	2	1	5 0,5
Leysin	1	5	10		16 1,3	3	2	2		7 0,6	1	2	1		4 0,3
Total CH X 100	3 60	7 88	14 88	2 66	26 81	11 220	7 88	11 69	2 66	31 97	3 60	5 63	4 30	1 33	13 41
Total x 100	33	52	77	33	58	24	76	69	33	100	42	52	31	50	42

Actors/Sectors	Conservation					Urbanization					NTFP				
	A	F	T	S	Tot	A	F	T	S	Tot	A	F	T	S	Tot
Châtel	2	1	3	1	7 0,5	4	2	1		7 0,5	1	1			2 0,2
Nancy		3			3 0,3							1			1 0,1
Vacheresse		4	2		6 0,6		1	1		2 0,2					
Total F X100	2 29	8 62	5 50	1 33	16 48	4 57	3 23	2 20	0	9 27	1 14	2 15	0	0	3 9
Rossinière	5	6	8	2	21 2,1		2	2		4 0,4		2	3		5 0,5
Vollèges		2	8	4	14 1,4			7	2	9 0,9			2	1	3 0,3
Leysin	1	2	7		10 0,8		6	5		11 0,9			1		1 0,1
Total CH X 100	6 120	10 125	23 144	6 200	45 141		8 100	14 88	2 66	24 75		2 25	6 38	1 33	9 28
Total x 100	67	86	100	11	94	31	52	62	33	51	8	19	23	17	20

A / F / T / S standing for Agriculture, Forestry, Tertiary and Secondary sectors. The totals for the Swiss Communes are in red and – for the French Communes in blue. The rows named **Total** show the total number of conflicts and below on the second line this same total is divided by the number of actors interviewed (in each occupational group, each Commune or country sample according to the column as given in Table 2) multiplied by 100.

Considering the occupation-based variations in the expression of *forestry conflicts* Table 6 below presents the following results along the six Communes.

Table 6: Forestry conflicts by occupation and Commune

	Forestry operations					Forest economy					Forest management				
Actors/sectors	A	F	T	S	T	A	F	T	S	T	A	F	T	S	T
<i>Châtel</i>	4	13	9	2	2 2,2	8	13	9		3 2,3	5	9	4	1	1 1,5
<i>Nancy</i>		2	6	1	9 0,9	2	22	2		2 2,6	3	1	4	1	1 1,9
<i>Vacheresse</i>	2	10	7		1 1,9	8	10	8		2 2,6	6	5	7		1 1,8
<i>Total F x 100</i>	6 86	25 192	22 220	3 100	5 170	18 257	45 346	19 190		8 248	1 200	2 192	1 150	2 66	5 170
<i>Rossinière</i>	6	9	9	4	2 2,8	11	9	8	3	3 3,1	3	4	8	1	1 1,6
<i>Vollèges</i>	3	1	4	3	1 1,1	3	1	16	3	2 2,3	2		7	3	1 1,2
<i>Leysin</i>	3	5	8		1 1,3	7	15	5		2 2,3	4	4	6		1 1,2
<i>Total CH x 100</i>	12 240	15 188	21 131	7 233	5 172	21 420	25 313	29 181	6 200	8 253	9 180	8 100	2 131	4 133	4 131
<i>Total x 100</i>	150	190	165	167	166	325	333	185	100	255	199	155	133	100	155

Totals are divided by the number of actors interviewed and multiplied by 100 (i.e legend under Table 5)

We will analyse these results first Commune by Commune, then across Communes, differentiating the Swiss from the French samples.

Communal level conflicts

- **Châtel:** It is the farmers from Châtel who expressed most multiple land-use conflicts, whereas the forest workers have expressed most forestry conflicts (Figure 15). The *agriculture* related conflicts mentioned by the farmers are mostly expressing the pressure on pastoral uses due to urbanization (including tourism infrastructure and housing development). Farmers in Châtel expressed often conflicts they had with forest workers about the use, construction, reparation and payment of forest and pastoral roads and about cutting back the forest which tends to invade pastures. Agriculture in the Commune has succeeded in maintaining a quite sustained activity with fourteen farms. Farming in Châtel actually benefits from tourism, which provides part time jobs, in particular in the winter around the skiing activities. Tourism also creates the opportunity for earning extra incomes, by valuing farm products and services, such as experiential visits and accommodation at the farm, cheese tasting and sale at the farm, etc.

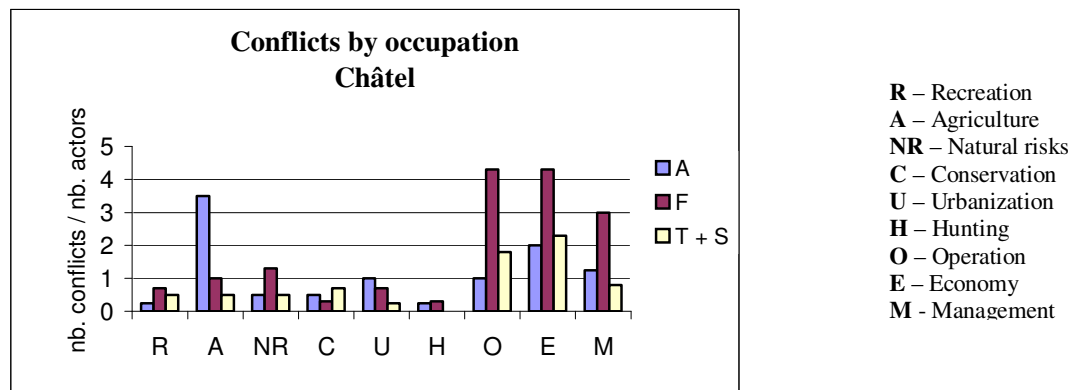
We see by the high number of conflicts expressed by forest workers from Châtel that this occupational category is in a difficult situation in this Commune. Indeed tourism development, for skiing in particular, has been less compatible with forestry activities than it is with pastoral activities. The development of housing in the valley inhibits forest exploitation, and the intensity of recreational uses makes timber extraction dangerous. Several loggers said to be unwilling to extract timber in some intensively visited forest areas, because tourists would too often trespass signs and barriers and enter the exploited zones; a memory of a deadly accident being often cited in this respect.

The farming sector managed better than the forest workers to organize its interests, mainly through an active farmland owners' association (Association Foncière Pastorale). The association helps obtaining subsidies and to defend farmers' interests in the Commune, maintaining also some farmers in the position of municipals. The forestry sector, which was strong in the past, Châtel

having a large and good quality spruce forest, has been marginalized over the last decades. Until thirty years ago, the Commune regularly reinvested its forest income in the development of skiing infrastructures. Even nowadays the communal forest budget is kept even. However, forest workers expressed the frustrations of a marginalized sector. Their marginalization is also visible by the fact that there is no forest worker among the municipals. Even the municipal commission, that cumulates both agriculture and forestry responsibilities, involves only farmers.

The conflict about *Natural Risks* in Châtel concerns particularly the forest workers, because large logs, which were not removed after Lothar struck the communal forest, threaten now to fall onto the village. These logs are also perceived as spoiling the landscape and causing further forest damage since they are infested with bark beetle. The discussion about the lack of sanitation measure in this forest raises considerable controversy. The project to construct a protection wall above the village on private forestland, in order to prevent the above damaged communal forest to cause log and rock fall, or mudslides on the village, has become a public issue. This conflict concerns mostly private landowners that should be expropriated to build the wall. Besides ownership interests, some mention also landscape and environmental considerations. The conflict concerns also the municipals and ONF (Office National des Forêts) and the related RTM (Restauration des Terrains de Montagnes) service. The municipality that would be liable in case an accident happened (while the administrations had advised the construction of the protection wall) tries to gain the agreement of the concerned forest owners to give their land and the financial support of the State to pay for the construction.

Figure 15



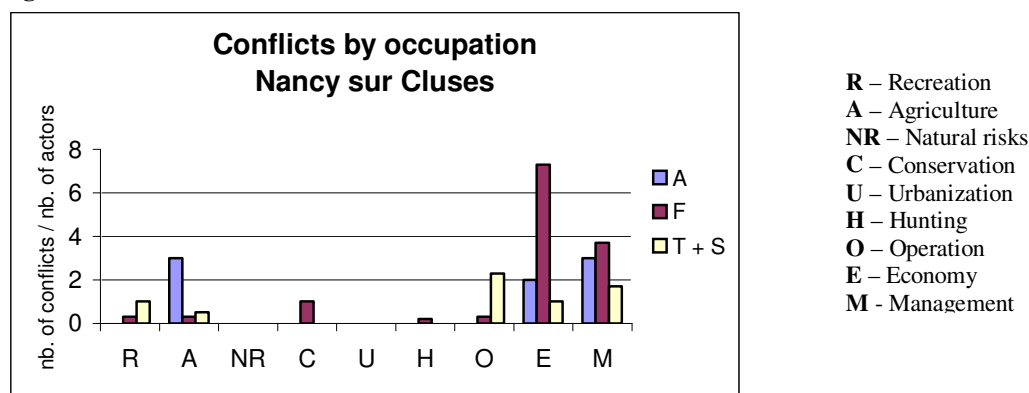
Y axis: Total number of conflicts expressed by the actors active in the same occupational category divided by the number of actors interviewed in each occupational category.

- **Nancy sur Cluses:** It is the only remaining (full time) farmer in the Commune who has expressed the most multiple land use conflicts. In Nancy farming has indeed been largely abandoned. Forestry related interests are on the other hand better represented than farming interests in the municipality, probably because communal forests still represents between 20-25% of the Commune's annual revenue. However, this revenue has shrunk considerably after the storm Vivianne (winter 82-83, 26'000 m³ of grounded wood). Until then the Commune almost exclusively relied on its forest revenue. Several interviewees remembered that in the past forest revenues were large enough for residents not to pay any taxes and enjoyed several community services for free. Until the sixties, the Commune also provided residents with substantial *affouage* timber (fuelwood and construction rights allocated to local residents on a yearly basis). Presently, a municipal wood commission (Commission Bois), constituted of four elected residents and one former forester consulted for technical aspects, regularly discusses

forest management with the Forest Service (ONF). Issues of divergences between the wood commission and ONF are mostly related to the *forest economy* and the *forest management* conflict categories. They involve questions about the definition of volumes that can be annually extracted and marketing questions, as well as questions about access to timber for residents. These questions cause also disagreements between municipals from the wood commission and local forest workers, private forest owners and residents of younger and older generations.

Nancy sur Cluses with little tourism and farming activities, with no substantial conservation or urbanization project, counts few multiple land use conflicts. Nevertheless, some residents (especially the young and women) expressed regrets about the lack of access to the forest due to insufficient trails and too much dead wood lying on the forest floor. Besides, several residents expressed regrets about a forest service that was not enough communicative.

Figure 16



Legend for Y axis, see Figure 15.

- Vacheresse: This Commune shows few multiple land use conflicts but quite a lot of concerns about forest economy and management expressed mostly by farmers and to a lesser extent by forest workers. This can be explained by the fact that the forest economy is still of interest to the farmers of Vacheresse as a secondary economic activity (most participants to affouage are farmers). One of the most mentioned multiple land use conflicts concerns the construction and use of forest and pastoral roads (included in the *Agriculture* category) – for various reasons according to the actors, impacts on the landscape, damage and payment for reparation induced by hauling timber for the farmers and the forest workers. Another conflict receiving equal concern is the decreasing activity of forest workers and the felt unfair competition with timber from Switzerland that is sold at uncompetitive prices, because of subsidized extraction in the nearby Swiss Alps. Several people interviewed regretted decreasing interest in forestry work and difficulties of private forestry enterprises to remain or start a business – not only because of the unfavorable timber market but also because of increasing social security costs, safety norms and increased conservation interests. Part time – non professional loggers residing in Vacheresse find that the formal timber economy and forestry professional rules as little compatible with their activity, which is however necessary for removing for instance small patches of trees in remote areas. The Commune hires local small-scale and part time loggers – often farmers - for removing also trees contaminated by the bark beetle. In fact large enterprise often refuse to do such small-scale extraction in less accessible areas, as these operations are not cost effective to them. The small-scale production of local fuelwood is also mostly externalized from the formal economy, while it provides extra incomes

and part time occupation to numerous residents, mainly farmers, but also from other occupational sectors – including the retired.

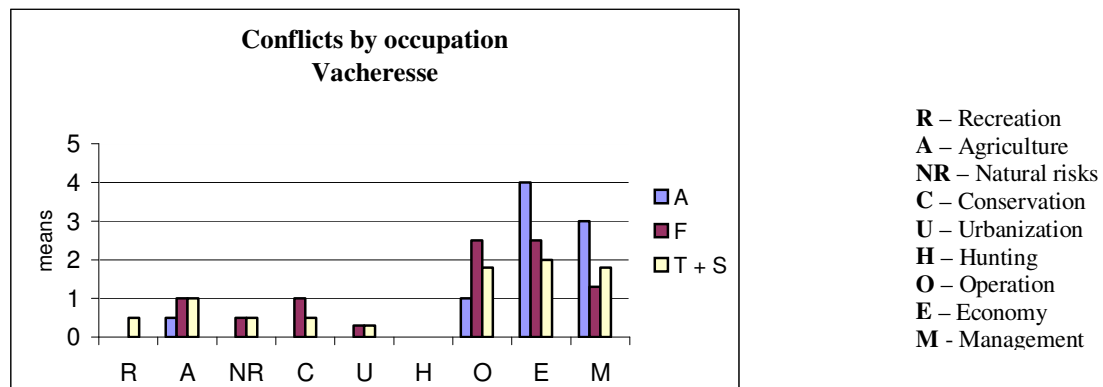
We see also quite a lot of concerns expressed by forest workers, as well as the tertiary sector about forest *operation*. These latter conflicts have been expressed in relation to changes in forest technology, in particular with increased mechanization, due to the degradation of the timber economy and increasing forestry labor costs (i.e. the augmented use of large tractors).

The municipality and the forest service are occupied at mitigating forestry conflicts, by arranging local regulation of access and use of affouage wood, by compromising between:

- Local residents demanding preferential access to communal forest resources;
- The Commune which is interested in selling communal timber and obtain some revenue;
- The forest service appreciating that local people extract deciduous trees at no cost, the Service favoring spruce which is economically more valuable;
- The timber merchants, who do not appreciate, that residents have preferential access to local timber.

Vacheresse shares also a protected area of 400 hectares with a nearby Commune. Due to local conflicts among opponent political groups – and mayor candidates - this protected area did not become a nature reserve. It would have meant a higher and more permanent protection status, an arrêté de biotope involving less use restrictions. The conflict confronted conservation and mountain recreation associations with local actors interested in the potential development of a skiing resort. This conflict was matter of deliberations during the last communal elections. The protected area is situated mostly above the timberline in mountain pastures, and concerns therefore little forestry interests, however, eight small protection sites (ZNIEFF⁹⁰) in the Commune have some forest management implications.

Figure 17



means: number of conflicts mentioned divided by number of actors interviewed in each occupational group

Rossinière: About multiple land uses we note that the greatest number of conflicts have been expressed in relation with *conservation* and then with *agriculture*. Conservation related conflicts have been generated after the reintroduction of lynx and the still actual project of creating a new protected area including the territory of Rossinière with that of two nearby

⁹⁰

ZNIEFF Zone naturelle d'intérêt faunistique et floristique

Communes. Farmers have been particularly concerned about a series of regional conservation projects, including protection of wetland areas and the reintroduction of lynxes, which conflicted with their pastoral activity.

Hunters, of various occupation, expressed high concerns in relation to the category of hunting and non-timber forest products. The region's hunters have indeed strongly opposed cantonal and state governmental and non-governmental actors promoting the reintroduction of the lynx. These same actors tend to oppose the new protected area project.

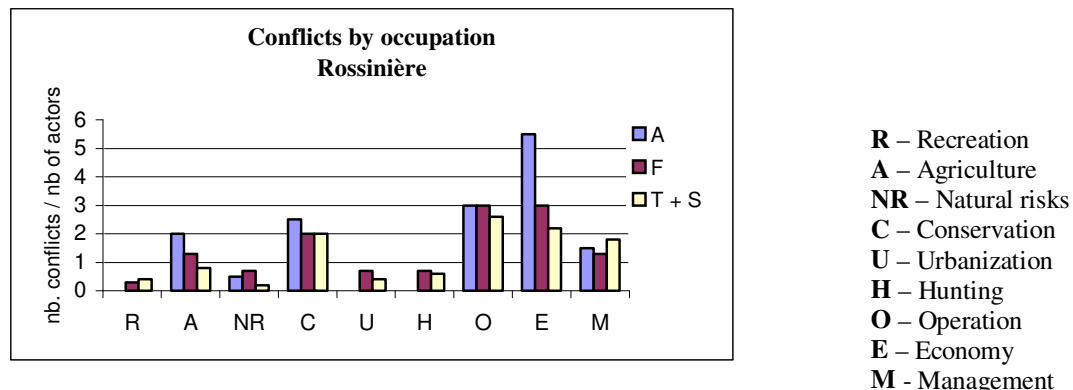
The forest sector has been profoundly shaken by the storm Lothar and the changes in its communal forest management (20 000 m³ of dead timber) it generated. While the Commune relied mostly on timber incomes from its communal forest until the eighties, it has done its best since – and especially after Lothar – to keep its forest budget positive. The Commune is still dependent on local timber for its dynamic sector of timber processing enterprises, valorising local wood with some thirty jobs in joinery and carpentry. The residents value also the use of local fuelwood for heating (the primary school is heated with fuelwood), and for some also for cooking and processing cheese. Rossinière has together with two other nearby Communes constituted a forestry group which is to function as a private/public inter-communal partnership enterprise. Its main objective is to maintain local forestry jobs and a local forestry capacity in training loggers and assisting forest owners in obtaining financial and technical support by the state or the canton and in marketing their timber.

Farmers show particularly high concerns about the degradation of the forest economy. Farmers were until Lothar the ones doing the main logging work in the Commune. The degradation of the forest economy, the profesionalization of logging for enhanced security measures promoted by the State in particular after Lothar, the influx of professional loggers from other Swiss regions who came to rescue the damaged areas of Rossinière, all induced local farmers to quit forest work. However results from the interviews show that farmers are still very concerned for the loss of jobs and also of income this decreasing forest activity entails – probably also because many of them are forest owners too.

Figure 9 shows shared concerns among all occupational sectors in forestry *operations*. The relatively high concerns of the tertiary sector have been expressed in particular by residents active in environmental protection associations challenging some forestry practices, concerning important forest extraction activities, mono species plantations, and now after Lothar also forest sanitation operations to remove trees affected by the bark beetle.

Residents show in general relatively concerns about forest *management*. Forest management has been increasingly delegated to the forest services, especially after Lothar. We note that the tertiary sector was the sector expressing most concerns about forest management. This intensity of concerns is mostly related to environmental interests – shaped also by the regional conservation projects: the creation of a natural regional park, possibly a biosphere reserve.

Figure 18



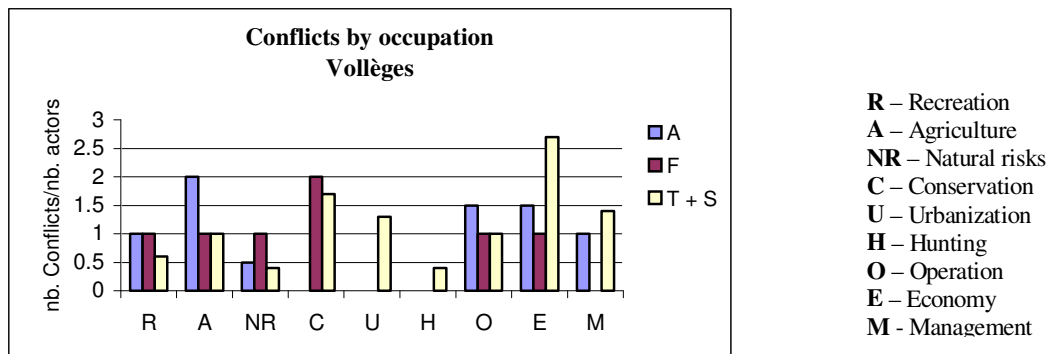
- **Vollèges:** Comparing with the other Communes, we note that actors from all occupational sectors expressed quite numerous and varied multiple land use conflicts, mostly about *conservation, agriculture* and *urbanization* related issues. But we note that residents of Vollèges expressed the least conflicts of all six Communes in forestry related issues. Very few residents are involved in forest related work in this Commune, but they remain interested in obtaining fuelwood: some 20 families practice affouage. The relatively high forest economy concerns expressed by the tertiary sector are an ownership related concern of the bourgeoisie of Vollèges that owns most of the forest in the Commune. The Commune – as represented by the municipality – is not a forest owner, at the difference of the five other Communes in our sample. The very institutional survival of the bourgeoisie, nowadays mostly composed of members working in the tertiary sector, is at stake. Indeed, the forest represents nowadays a net cost to the bourgeoisie and the forest economy is therefore perceived as a conflictive situation – affecting the relation between the bourgeoisie owning the resource, the Commune and the federal and cantonal forest agencies which may mitigate but cannot redress this situation. Indeed, the bourgeoisie owning the forest has actually no longer the financial nor the organizational capacity to manage its forested commons and relies mostly on the cantonal forest services and federal subsidies for maintenance operations.

Farmers have expressed quite many conflicts. Indeed their pastures are mostly an open larch and spruce forest (Figure 19). They have to adapt their pastoral uses, taking into account recreation and landscape values of these same pastures. Farmers have also some forestry concerns, in particular about plantations of new larch in their pastures and the growth of the forest stand at the detriment of pastoral space. They express concerns about the declining timber prices, which make their timber extraction work worthless.

The actors from the tertiary and secondary sectors perceive the communal mostly pastured forests, mainly in terms of conservation, and secondarily in terms of agriculture related concerns. Compared with other the other Communes of our sample this sector shows also high concerns related with urbanization, we note that these concerns are mostly related to rapid urbanization in nearby Communes and to some extent to housing developed in Vollèges.

The foresters expressed some concerns about two conservation projects, one being the legally protected landscape of the forested pastures and the other the restoration and management of two ponds – part of these forest pastures - for which multiple uses need to be reconciled, in particular related to recreation, water quality, pastoral and conservation objectives.

Figure 19



Leysin: Conflicts related to recreation, urbanization and conservation are of greatest concern to residents from Leysin working in the tertiary sector (Figure 20). The development of tourism related infrastructures – the construction of a new train line in particular - is perceived as a threat to the local environment. The affected mountain zone includes a communal forest that has been so far relatively well preserved from recreation related uses – mostly thanks to an informal local recognition of its relatively high biodiversity value.

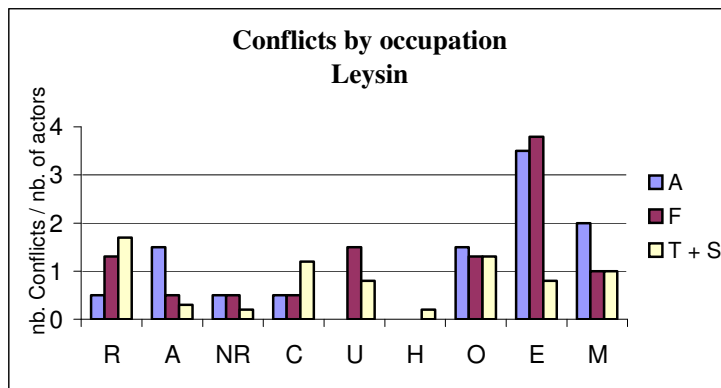
Forest workers have expressed most conflicts in relation to forestry issues in Leysin, because of the decline of the local forest economy and the falling forestry interest and competency by the municipality. This is also manifested in the present municipality's interest in selling one of its formerly most productive forest – *Les Charbonnières*. This communal property is an exclave in a nearby Commune, and has been greatly damaged by Lothar, and now by the infestation of the bark beetle. Because this forest has not the status of a protection forest, Leysin does not receive subsidies to recover from its forest restoration and sanitation costs. Forest management in this forest is further complicated by the presence of military activity all around the property and by multiple users (for various leisure and sports activities and for picking mushrooms in particular).

Forest workers in Leysin are concerned that the present communal trend to neglect the forest could represent a potential threat to the multiple forest services, including their protective, and conservation functions.

The second group expressing most conflicts is the farming sector: it feels marginalized, like the forest sector, next to the dominant tourism sector. Farmers in Leysin are users of forested pastures and are often forest owners. They expressed concerns about the declining forest economy and the absence of economic support they received for maintaining and exploiting their private forests. They expressed also concerns about forest agencies not recognizing enough their know-how, their ownership rights and responsibilities over the land they work.

The figure below shows that in Leysin, the tourism sector is noticeably little concerned about the difficulties of the forest economy. Several actors expressed concerns that local infrastructures and modern construction did not valorize enough local timber and wood processing capacities.

Figure 20



Cross communal analysis

We classed the totals of conflicts mentioned according to the main occupation of the interviewed for analyzing which type of users expressed more or less conflicts in relation with the multiple land uses and forestry in the Commune. Table 7 below shows these occupation-based variations

Table 7: Conflict frequencies according to occupation and Commune

Communes	Agriculture (A)	Forestry (F)	Tertiary (T)	Secondary (S)
Châtel	10,3 – 12 / 11,4*	16	8-11 / 10	3
Nancy sur Cluses	10	8,0-8,2 / 8,1	4,5-6 / 5,5	2
Vacheresse	8,5	9,0-9,7 / 9,5	8,3-10 / 9,4	/
Total F	10	11,2	8,3	2,5
Rossinière	15	13,3-18,5 / 16,8	14,7	5,5-9 / 7,8
Vollèges	15	7	9-12,5 / 11,3	10
Leysin	10	10,3	7,5-8,8 / 8,4	/
Total CH	13,3	11,4	11,5	8,9
Total	11,7	11,3	9,9	5,7

* the double values differentiate spontaneous interviews from interviews on invitation (that last at least double the amount of time) the number in bold considers only results from interviews on invitation – while the number in regular indicates the overall value – including both types of interviews. In brackets we calculated an average by doubling the value of the interviews on invitation (more numerous and longer).

Considering all six Communes together, and for all types of conflicts (multiple land use and forestry), we note that it is informants working in agriculture related occupations that express most conflicts, then from the forestry sector and last from the tertiary sector. The lower values of the secondary sector are not quite representative given the few interviews we had of people occupied in this sector. When considering separately the French from the Swiss samples of three Communes each, we see that for the French sample, it is the forest workers who expressed most conflicts, while for the Swiss sample it is the farmers.

The relatively small sample of interviews per Commune and the fact that we have sometimes only one or two actors per category shows that these occupational variations are more meaningful to consider at a cross communal level (at least three Communes at a time). For instance, in Nancy sur Cluses, we have only one farmer left – and whose interview shows quite numerous conflict, however the weight of this farmers' interview compared with the six forest

workers we interviewed in the same Commune – is then much higher in the mean – based rating system we used for our conflicts (this system being necessary since we did not have the same number of interviews in each Commune – or we would not be able to do a cross-communal analysis).

Considering *multiple land use* conflicts, we see that for the French sample, it is the interviewed from the **agriculture** sector who express most conflicts, while for the Swiss sample it is the **forest workers**.

Farmers are by far mostly concerned about *agriculture* related conflicts. In France farmers are secondarily mentioning *urbanization* related conflicts, while in Switzerland their secondary concerns are *conservation* related.

The **tertiary sector** is the occupational group mentioning the third highest total *multiple land use* conflict rate for all six Communes – while it is second in the Swiss sample. Actors from the tertiary sector mentioned most often in the French sample, *agriculture* and then *recreation* related conflicts, and in the Swiss sample, primarily *conservation* related conflicts and secondarily *recreation* and *urbanization* related conflicts (same frequency).

In our French sample it is the **forest workers** who have by little the highest mention of *conservation* related conflicts (just before the tertiary sector), while in Switzerland it is more clearly the tertiary and the secondary sectors (Figure 13 and 14). However the forestry sector comes first in the expression of the total of *multiple land uses* related conflicts in Switzerland. In France forest workers come second – after the farmers - and express most *MLU* conflicts in relation to *agriculture* and second to *conservation*.

We note in the results about *forest operations* for the French sample, that the tertiary sector mentions the highest rate of conflicts and then farmers. Their perceived conflict is that the forest is not cleaned after logging, the construction of forest roads disturbing in the landscape and so are plantations. In the Swiss sample the highest rate of conflicts expressed in relation with forest *operations* is the secondary sector and then the farmers.

Concerning forest *economy*, it is the forest workers who are most concerned in the French sample and the farmers in the Swiss sample. While about forest *management* the highest number of conflicts are for both countries' samples expressed by the farming sector.

Figure 21

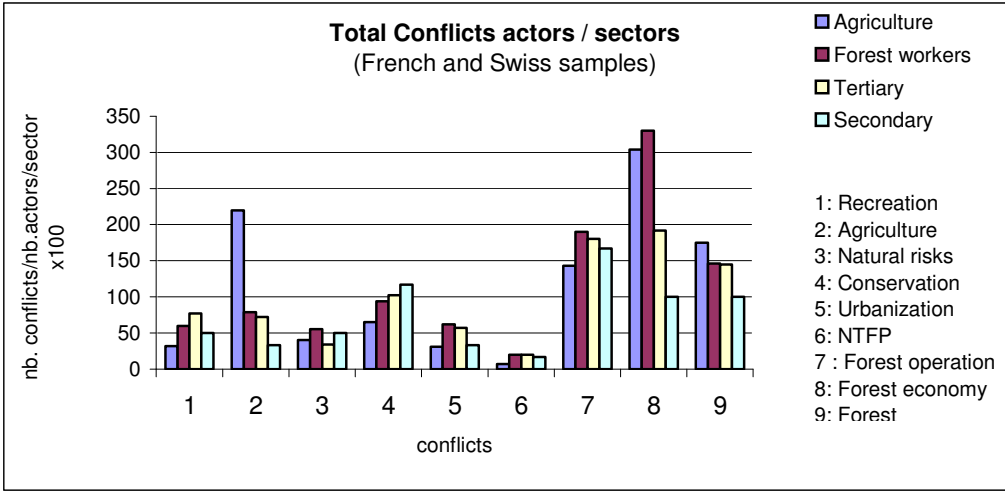


Figure 22

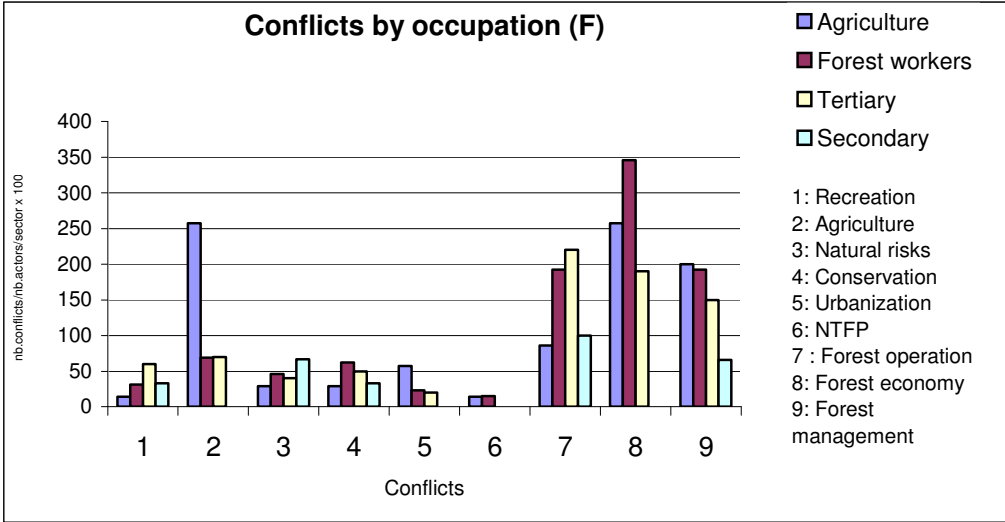


Figure 23

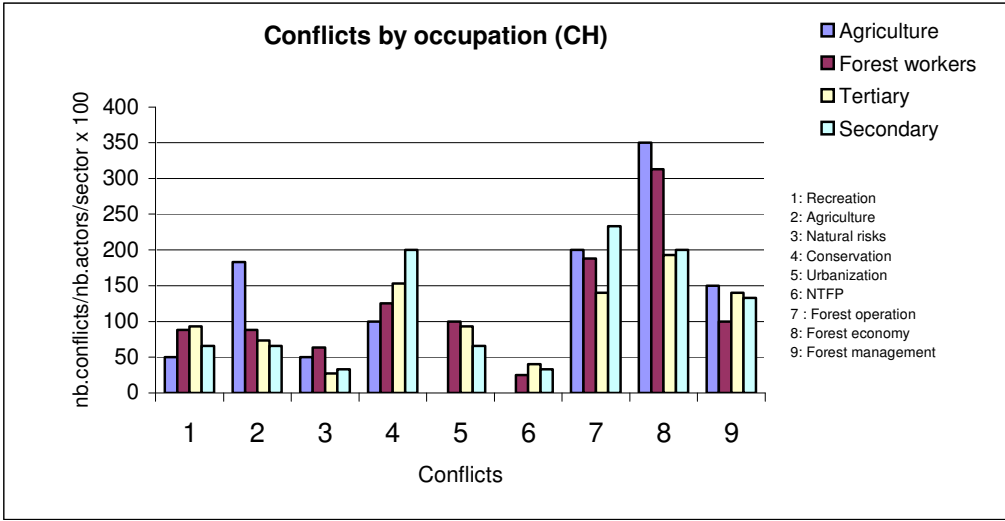


Table 8: Total multiple land use (MLU) and forestry (FOR) conflicts by sectors

	Agriculture	Forestry	Tertiary	Secondary
MLU French	400	246	240	133
MLU Swiss	383	489	479	464
MLU Total	783	735	719	597
FOR French	543	730	560	166
FOR Swiss	700	601	473	566
FOR Total	1243	1331	1033	732

Concerning *multiple land use*, in the Swiss sample, it is the **forest workers** who express most conflicts, however with the tertiary sector coming close.

While in France, it is the **farmers** who by far express most conflicts (the forest workers and the tertiary sectors expressing much less and among them approaching conflict frequencies)

Concerning *forestry* conflicts, in Switzerland it is the **farmers**, who express by quite a lot most conflicts.

While in France, it is the forest workers who express significantly more conflicts.

For the **total sample**, it is the **farmers** who express most *multiple land use* conflicts and the **forest workers** who express most *forestry* conflicts

Figure 24

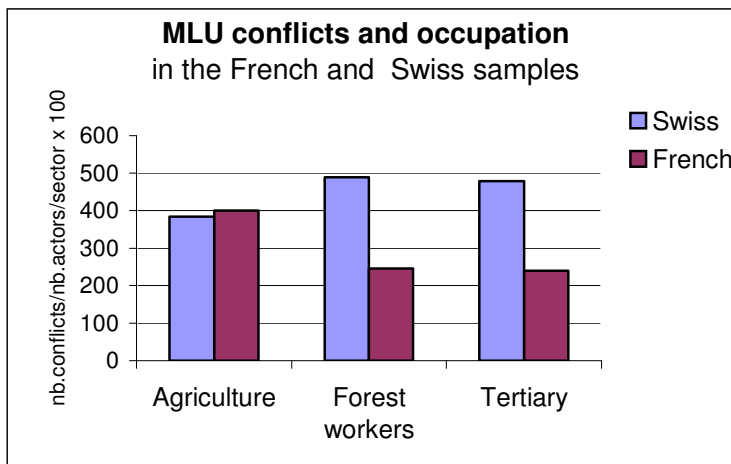
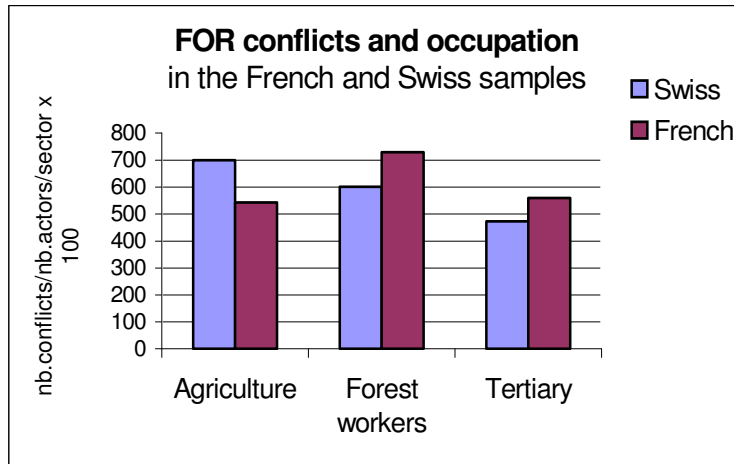


Figure 25



In relation to *forestry* issues it is surprising to note the high rate of conflicts expressed by residents primarily occupied in the *agriculture* sector, in Switzerland (Table 7, Figure 14). The agriculture sector of the French sample has expressed fewer forestry conflicts related to *operational* and *economic* aspects of forestry, but it expressed the highest rate of conflicts about forest *management* (Figure 13). We could propose as explanations, which need to be further tested, that farmers in Switzerland – who are often relatively small forest owners – receive little state support for forestry work in comparison to subsidies going to communal and public forests. It seems also that mountain farmers in the Swiss context have been more involved in the forest economy than they have been in France, at least until the beginning of the eighties (i.e. profile of Rossinière in particular), they are therefore also more concerned about forestry conflicts – in particular the declining market conditions for timber and their lesser say in forest management. The fact that French farmers expressed fewer conflicts than their Swiss counterparts in relation to *forestry* issues in general (in particular on forest *operation* and *economy*) may indicate that they have been institutionally and politically marginalized from forestry before even being marginalized economically – and this since longer than have the Swiss farmers. However, our interviews and field observation across the three French Communes show that French farmers are still working in the forest, that the forest still contributes to their livelihoods – be it for their direct consumption or direct selling of fuel wood – but their logging and wood processing activity is mainly relegated to the informal economy.

Considering the entire sample of interviews across both countries, we note that forest workers are not significantly more concerned about multiple land use conflicts than are people from other sectors, they are second to the farmers and their conflict rate is only little higher compared to the one of the tertiary sector (Table 7). In general (across countries), forest workers are more concerned about forestry conflicts – in particular their economic and operational aspects. However, concerning forest management they expressed slightly less conflicts than farmers and actors from the tertiary sectors. Forest workers, in the French sample, express more conflicts related to the *forestry* themes than the same occupational category in Switzerland. About *forest economy* we note that in France the most concerned by far are forest workers. Results show that forest workers in France perceive substantial frustrations, because of increased economic constraints impairing forest practices constraining them to use heavy tractors rather than cabling or helicopter extraction, etc.), and also because of augmenting *recreation*, *urbanization* and *conservation* pressures making logging activities increasingly difficult (unsafe logging near housing and infrastructure, lack of logging acceptance due to noise, shortened logging seasons

to accommodate tourism seasons, etc.). Forest workers in Châtel who suffer particularly under such unfavorable working conditions have expressed particularly high conflict frequencies in relation to forest *operation* and forest *economy*, which threatens their jobs.

Forest workers from the Swiss Communes expressed more concerns about *multiple land uses* than did their French counterparts but less concerns about *forestry* concerns. Forest workers in Switzerland seem a little less concerned about economic aspects of forestry, because they rely more on subsidies, which in Switzerland support mainly non-timber benefits of mountain forestry (in particular protection against natural risks) and also because the Swiss area studied is more urbanized and its tertiary economy more accessible and stronger to the mountain populations than it is for residents of the French area. Concerning *subsidies* we may question if State-paid forest workers expressed more or less - or different types of - conflicts than have forest workers from the private sector. Public forest agents represent at least one of the interviewed forest workers in each Commune (two for Leysin). We note that in Switzerland forest workers from the private sectors tend to express more conflicts than those from the public sectors. In the French sample we observe however a contrary trend (except for the forest management related conflicts). (i.e. tables of conflicts by Communes, appendix).

In the entire sample we noted that forest workers from private or public agencies when trying to develop the local mountain timber economy face obstacles of legal and market standards. For example, standards in the construction of par-avalanches, which favor the use of infrastructures built in metal and concrete rather than in wood. Or the length of boards requested in large sawmills that inhibit the extraction of smaller size logs, that is more adapted to mountain regions, or the simple preferences of industrial sawmills, furniture and construction enterprises, for wood from straight poles and with few nodes (mountain timber having typically lots of nodes and curved poles).

Most forest workers express their passion for the forest but add often that their jobs are difficult (for economic, climatic and safety reasons), and often not well considered by urban residents or visitors. They feel uncertain about the future of their jobs with increasing market pressures (in particular importation of timber from Russian Federation and European countries from the east) and also because of regulatory pressures (including environmental and safety standards) and difficulties to create and run small enterprises (for the social insurances in particular). Forest related workers in the tourism-oriented Communes perceived their situation as more marginalized than in the more rural Communes.

Residents mostly occupied in the tertiary sector show less concern in both countries. In Switzerland they express more conflicts about the forest economy than about forestry operations and forest management. In France the tertiary sector is more concerned about operational conflicts, then about the economy and least about forest management. For all three categories, the tertiary sector shows more concerns about *forestry* in the French sample, than in the Swiss. One possible explanation is that pluri-occupation may be a strategy that is more developed in the French alpine contexts than in the Swiss contexts and that forestry related work is still a concern of many actors primarily occupied in the tertiary sector of the French alps. However, the Swiss in general, the tertiary sector expresses the same rate than the French in relation to economic difficulties of communal forestry. However, text analysis shows that tertiary sector actors from both country samples are unwilling to invest financially in the forest sector (from their own sector's income). The results about forest *operations* show that there is a high rate of conflicts mentioned by the tertiary and secondary sectors – in fact they are the occupational group expressing most operation related conflicts in France (Figures 13 and 14).

Gender based variations

For both samples from France and Switzerland, grouping all issues, **multiple land use** and **forestry**, Table 9 below shows that men expressed more conflicts than women, and so did the local actors over forty years, compared with the age groups below forty.

Table 9: Conflicts by gender, by age and by Commune

Com-munes	GENDER						AGE					
	Nb. of males*	Conflicts males	Average	Nb. of Females*	Conflicts Female	Average	Nb. of young*	Conflicts <= 40	Average	Nb. of elder	Conflicts > 40	Average
Châtel	9	99	11	4	28	7,0	6	54	9,0	7	73	10,4
Nancy	8	60	7,5	2	9	4,5	5	28	5,6	5	41	8,2
Vache-re	8	75	9,4	2	11	5,5	3	24	8,0	7	62	8,9
Total F	25	234	9,4	8	48	6,0	14	106	7,6	19	176	9,3
Rossi-niè	7	94	13,7	3	30	10	5	65	13	5	59	11,8
Vollèges	7	85	12,4	3	11	3,6	4	21	5,3	6	75	12,5
Leysin	10	92	9,2	2	14	7	4	42	10,5	8	64	8,0
Total CH	24	271	11,3	8	55	6,9	13	128	9,8	19	198	10,4
TOTAL	49	505	10,3	16	103	6,4	27	234	8,7	38	374	9,8

i.e table 2 which gives the numbers of actors interviewed (both on invitation and spontaneously) by gender, by age, as well as by Commune.

However, comparing results across Communes, Rossinière and Leysin distinguish themselves from the other Communes by the fact that their younger residents mention more conflicts than the above forty ears old. It is also in these two Communes that women have expressed most conflicts, but still les than the men. In Châtel, women have expressed about the same number of conflicts than women in Leysin. Châtel has also the highest conflict frequency from the French sample for the women and the men below 40 years old. While we saw that Communes which have more tertiary and tourism oriented economies tend to have more **multiple use** conflicts, the results on age and gender indicate that the tertiarization of the local economy furthers the expression of conflicts by the young and women, more than does a rural context. Rossinière is, however, a particular case in this respect, since it is more a rural type of Commune. Here, the relatively high concerns about conservation (related to the project of creating a new protected area and around the reintroduction of the lynx) explain at least partly that the young and the women perceive more conflicts than in other Communes.

Conflicts by themes and by gender

Table 10: Conflicts by theme and by gender

Themes	R		A		NR		C		U		H		O		E		M		Total conflict	
Gender	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Châtel F: 4 / M: 9	0	5	5	14	4	6	1	6	1	6	0	2	6	22	7	23	4	15	28	99
	0	0,6	1,3	1,6	1	0,7	0,3	0,7	0,3	0,7	0	0,2	1,5	2,4	1,8	2,6	1	1,7	7	11
Nancy F: 2 / M: 8	2	3	0	6	0	0	0	3	0	0	0	1	1	8	2	24	4	15	9	60
	1	0,4	0	3	0	0	0	1,5	0	0	0	0,5	0,5	1	1	3	2	1,9	4,5	7,5
Vacheresse F: 2 / M: 8	1	1	1	8	1	3	0	6	0	2	0	0	1	18	3	23	4	14	11	75
	0,5	0,1	0,5	1	0,5	0,4	0	0,8	0	0,3	0	0	0,5	2,3	1,5	2,9	2	1,8	5,5	9,4
Total F F: 8 / M: 25	3	9	6	28	5	9	1	15	1	8	0	3	8	48	12	70	12	44	48	234
	0,4	0,4	0,8	1,1	0,6	0,4	0,3	0,6	0,3	0,3	0	0,1	1	1,9	1,5	2,8	1,5	1,8	6	9,4
Rossinière F: 3 / M: 7	0	3	4	8	0	4	6	15	1	3	1	4	5	23	9	22	4	12	30	94
	0	0,4	1,3	1,1	0	0,6	2	2,1	0,3	0,4	0,3	0,6	1,7	3,3	3	3,1	1,3	1,7	10	13,7
Vollèges F: 3 / M: 7	1	6	0	12	0	5	1	13	4	5	0	3	0	11	2	21	3	9	11	85
	0,3	0,9	0	1,7	0	0,7	0,3	1,9	1,3	0,7	0	0,4	0	1,6	0,7	2,3	1	1,3	3,7	12,1
Leysin F: 2 / M: 10	4	12	0	7	0	4	3	7	1	10	0	1	4	12	1	26	1	13	14	92
	2	1,2	0	0,7	0	0,4	1,5	0,7	0,5	1	0	0,1	2	1,2	0,5	2,6	0,5	1,3	7	9,2
Total CF F: 8 / M: 24	5	21	4	27	0	13	10	35	8	18	1	8	9	46	12	69	8	34	55	271
	0,6	0,9	0,5	1,1	0	0,5	1,3	1,5	0,8	0,8	0,1	0,3	1,1	1,9	1,5	2,9	1	1,4	6,9	11,3
Total F: 16 / M: 49	8	30	10	55	5	22	11	50	7	26	1	11	17	94	24	139	20	78	103	505
	0,5	0,6	0,6	1,1	0,3	0,4	0,7	1,0	0,4	0,5	0,1	0,2	1,1	1,9	1,5	2,8	1,3	1,6	6,4	10,3
Total conflict	38		65		27		61		33		12		111		163		98		608	

R-ecreation

A-griculture

N-atural R-isks

C-onservation

U-rbanization

H-unting and NTFP

Forest O-peration

Forest E-conomy

Forest M-anagement

In the first column – under the name of the Commune are in **pink** the total numbers of Female and in **black** the total number of Male actors interviewed for each Commune. The first numbers in each row are the numbers of conflicts and the numbers below are the total number of conflicts by theme divided by the total number of interviews for each gender category, by Commune – i.e. Table 9.

Relative importance of conflicts by gender groups in decreasing order

Decreasing Order of conflict frequencies	1	2	3	4	5	6	7	8	9
Female	E	M	O	C	A	R	U	NR	H
Male	E	O	M	A	C	R	U	NR	H
Combined	E	O	M	A	C	R	U	NR	H

Comparing the total averages of conflicts by themes between gender categories (second last column of Table 10 reorganized in the summary table above in decreasing order of importance), the economy related conflicts are the most mentioned for both male and female categories. However, distinguishing results by country and then by Commune, reveals that for the French sample, women have expressed the same number of conflicts about forest management than about forest economy. Women expressed mostly forest management issues in two Communes: Nancy sur Cluses and Vacheresse, which are rather rural types of Communes. Women's concerns for these two Communes were mostly related to conflictive perceptions related with difficult access to the forest with children (because of lack of trails, of too dense forest or branches on forest floors).

Among the multiple land use conflicts, women in the Swiss sample express first conservation related conflicts, while women in the French sample express mostly agriculture related conflicts. (Table 10, Figures 26-28). Results for natural risk related conflicts indicate more concerns from women residing in France, however, these concerns have been mostly expressed in the Commune of Châtel, which indicates that natural risk related conflicts are very site specific.

Analyzing the gender-based variations, we see that 21 out of the 49 male respondents (for the total sample) are from the forest sector, however, no women in our sample is occupied in forestry. Most women are occupied in the tertiary and secondary sectors (we included women working at home in the latter) and some in the farming sector (two in our sample). Women are indeed part of the occupational sectors expressing in general fewer conflicts (the tertiary and the secondary sectors). Comparing the difference in frequencies of conflicts between the women category (6,4) and the men (10,3), we see that it relates with the difference in numbers of conflicts expressed by on one hand the tertiary and secondary sectors (respectively 9,9 and 5,7) and on the other hand the primary sector (11,7 for agriculture related occupation and 11,3 for the forestry sector) (i.e. Table 7). The gender based difference being of 3,9 and the sector based difference of 3,7 (taking the averages of on one side the 3^{ry} and the 2^{ry} sectors and on the other between the agriculture and the forestry sectors), we can conclude that gender variations are largely related with occupational variations. Women are then part of the occupational sectors expressing most conflicts in relation with *conservation* and they do indeed show relatively high *conservation* related concerns when these become a public issue in the studied Communes, like in Rossinière and in Leysin (Table 10).

Figure 26

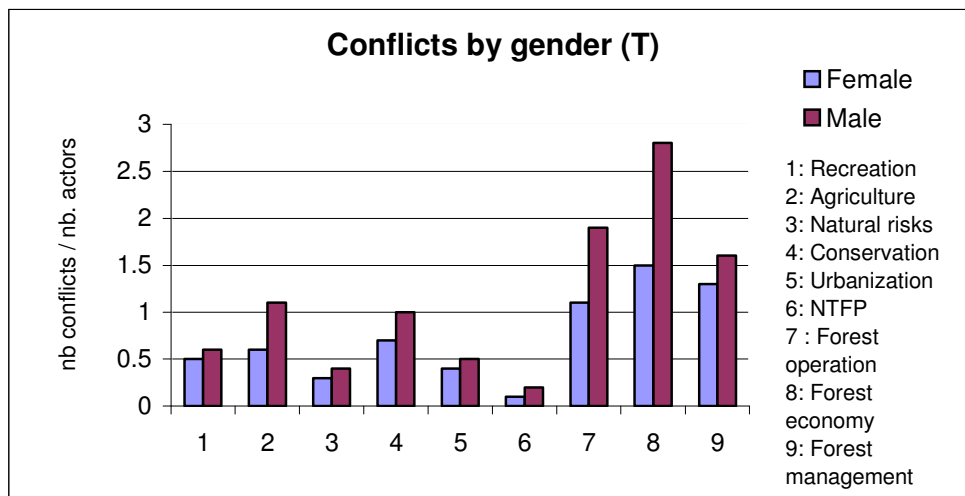


Figure 27

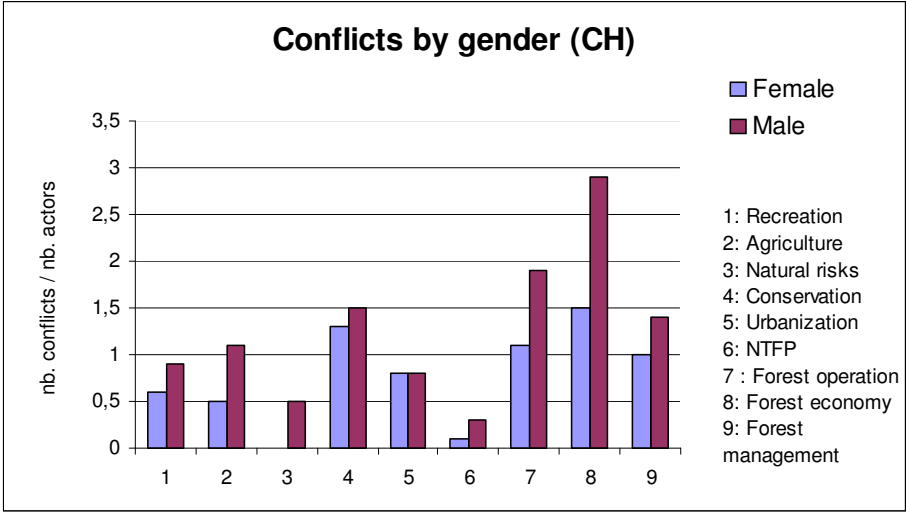
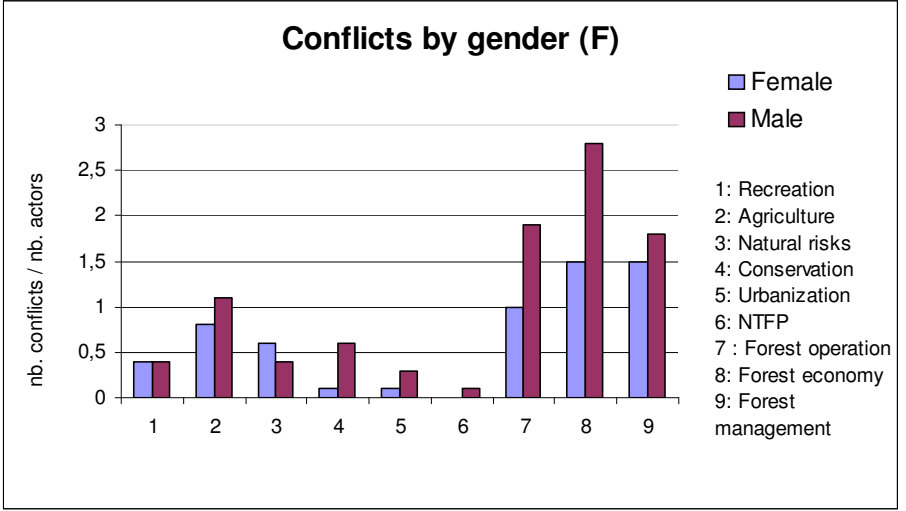


Figure 28



Age based variations

Table 11: Conflicts by age

Themes	R		A		NR		C		U		H		O		E		M		Total conflicts	
Age	Y	E	Y	E	Y	E	Y	E	Y	E	Y	E	Y	E	Y	E	Y	E	Y	E
Châtel Y: 6 / E: 7	2 0,3	3 0,4	8 1,3	11 1,6	2 0,3	8 1,1	4 0,7	3 0,4	4 0,7	3 0,4	0 0	2 0,3	12 2	16 2,3	13 2,2	17 2,4	9 1,5	10 1,4	54 9,0	73 10,4
Nancy Y: 5 / E: 5	4 0,8	1 0,2	3 0,6	3 0,6	0 0	0 0	0 0	3 0,6	0 0	0 0	0 0	1 0,2	4 0,8	5 1	6 1,2	20 4	11 2,2	8 1,6	28 5,6	41 8,2
Vacheresse Y: 3 / E: 7	1 0,3	1 0,1	3 1	6 0,9	1 0,3	3 0,4	0 0	6 0	0 0	2 0,3	0 0	0 0	4 1,3	15 2,1	7 2,3	19 2,7	8 2,7	10 1,4	24 8	62 8,9
Total F Y: 14 / E: 19	7 0,5	5 0,3	14 1,0	20 1,1	3 0,2	11 0,6	4 0,3	12 0,6	4 0,3	5 0,3	0 0	3 0,2	20 1,4	36 1,9	26 1,9	56 2,9	28 2,0	28 1,5	106 7,6	176 9,3
Rossinière Y: 5 / E: 5	2 0,4	1 0,2	6 1,2	6 1,2	3 0,6	1 0,2	13 2,6	8 1,6	2 0,4	2 0,4	2 0,4	3 0,6	16 3,2	12 2,4	16 3,2	15 3	8 1,8	8 1,4	68 13,6	56 11,2
Vollèges Y: 4 / E: 6	1 0,3	6 1	0 0	12 2	0 0	5 0,8	3 0,8	11 1,8	6 1,5	3 0,5	0 0	3 1,8	0 0	11 1,8	7 1,8	16 2,7	4 1	8 1,3	21 5,3	75 12,5
Leysin Y: 4 / E: 8	6 1,5	10 1,3	3 0,8	4 0,5	1 0,3	3 0,4	3 0,8	7 0,9	5 1,3	6 0,8	0 0	1 0,1	4 1	12 1,5	15 3,8	12 1,5	5 1,3	9 1,1	42 10,5	64 8
Total CH Y: 13 / E: 19	9 0,7	17 0,9	9 0,7	22 1,2	4 0,3	9 0,5	19 1,5	26 1,4	13 1	11 0,6	2 0,2	7 0,4	20 1,5	35 1,8	38 2,9	43 2,3	17 1,3	25 1,3	131 10,1	195 10,3
Total Y: 27 / E: 38	16 0,6	22 0,6	23 0,9	42 1,1	8 0,3	20 0,5	23 0,9	38 1	17 0,6	16 0,4	2 0,1	10 0,3	40 1,5	71 1,9	64 2,4	99 2,6	45 1,7	53 1,4	237 8,8	371 9,8
Total conflicts	38		65		28		61		33		12		111		163		98		608	

1: R-ecreation
2: A-griculture
3: N-atural R-isks
4: C-onservation
5: U-rbanization

6: H-unting and NTFP
7: Forest O-peration
8: Forest E-conomy
9: Forest M-anagement

In the first column are given in **green** the total number of **Young** (below 40 years old) and in **black** the total number of **Elderly** actors (equal or above 40 years old) interviewed for each place. The second lines in each row give the average number of conflicts by age group (considering the number of actors in each age category interviewed in each Communes and country samples).

Relative importance of conflicts by age groups in decreasing order

Decreasing order of conflict frequency	1	2	3	4	5	6	7	8	9
< 40	E	M	O	A=C	R=U	NR	H		
= or > 40	E	O	M	A	C	R	NR	U	H
Combined	E	O	M	A	C	R	U	NR	H

Concerning **multiple land uses**, the young people interviewed in the Swiss Communes have expressed more conflicts than the people above forty years in relation to *urbanization* and to *conservation* (even though to a lesser extent), and substantially more of these conflicts than the young in the French sample.

About **forestry** issues, forest *economy* related conflicts are for older and younger generations, in all studied Communes likewise a top concern. For Switzerland, it may appear surprising to see that the

younger generations have expressed even more forest *economy* related conflicts than did the above forty years old. The fact that the younger people interviewed in Switzerland expressed more forest *economy* conflicts than the young French may have to do with the current events at the time of the interviews: the raising forest policy debates about the Swiss Confederation's intentions to substantially reduce forest subsidies. By contrast, it is in relation to forest *management* that the younger categories in the French sample have expressed more conflicts than the above 40 years old, whereas in the Swiss sample forest *management* conflicts have the same frequencies for both age cohorts (Table 10, Figure 29). We will discuss later some structural explanations for these different perceptions about forest *management* according to the age groups, comparing the French and the Swiss institutional forestry contexts.

Taking the overall results concerning **forestry** conflicts, the age factors shows to be less determining than the occupation factor. However, results along age-based variations are more significant in the Swiss Communes, which have some conservation or urbanization projects, in particular for Leysin and Rossinière (Table 11). It is only in these two Communes that the young have expressed more conflicts. It is also remarkable that the young in both these Communes have expressed a high number of forest *economy* related conflicts. In fact, in Leysin and in Rossinière we interviewed young actors, who felt personally concerned by the viability of the local forest economy. Indeed, given the size of our sample of qualitative interviews (65) the personality and the opinion of each actor interviewed influence sensibly the results.

Intergenerational differences in relation to forestry conflicts are manifest in the least urbanized Communes, where there is little tourism and few local employment opportunities. In these Communes the younger commute daily for their work to the nearby valleys and cities, while the elder tend to stay in - and manage - the Commune. In our French sample it is Nancy sur Cluses and in Switzerland, Vollèges, which correspond to this social profile. In these Communes, the young are substantially less concerned by forestry issues than the above forty years old, who in their past have known an active forestry and farming related occupational life and today are still in the position of being decision-makers in the municipalities. We see also that for the Communes having little tourism development - Nancy sur Cluses, Rossinière and Vollèges - it is the younger generations, who express slightly more conflicts related to *recreation* (or *urbanization* in Vollèges), than do the above 40 years old. However, text analysis shows that these conflicts are not associated with actual disturbances related to existing recreational activities or urbanization, but are the expression of younger generations' frustration with their Commune not investing more into recreational and tourism development that could create employment opportunities.

The occupational variable influences the difference between both age cohorts' results. For the French sample, we interviewed over twice as many primary sector actors for the above forty years old than for the tertiary/secondary sectors, whereas the occupational proportions were more balanced for the younger age cohorts. In the Swiss sample, the above forty years old were on the contrary twice as many from the tertiary or secondary sector. This difference in the composition of the interview samples explains in part the relatively lower forest *economy* conflict rate of the above forty from the Swiss sample, compared with the French sample. However, the effects of these differences (due to the snow-sampling interviewee selection method) are minimized because we compare averaged frequencies (dividing totals of conflicts by the number of actors interviewed in each category considered). The different occupational composition of the elder samples between the French and the Swiss samples is also representative of an actual difference in the pace of tertiarization which has happened earlier and with greater force in the Swiss than in the studied French territory.

Relations between results for the gender, age and conflicts expressed in the interviews:

It seems that the gender variable is more determining than the age difference, in numbers of conflicts expressed:

Men mention more conflicts than women: [10,3-6,4], difference of **3,9**

People over 40 years mention more conflicts than younger people [9,8-8,8], difference of **1**.

Table 12: Relations between age and gender

Communes/a and gender	<i>YF</i> <i>Nb.acto</i>	<i>YF</i> <i>Conflit</i>	<i>EF</i> <i>Nb.acto</i>	<i>EF</i> <i>Conflit</i>	<i>YM</i> <i>Nb.acto</i>	<i>YM</i> <i>Conflit</i>	<i>EM</i> <i>Nb.acto</i>	<i>EM</i> <i>Conflit</i>	<i>Total</i>	<i>Total act</i>
Châtel	0	0	4	28	6	54	3	45	127	13
Nancy	2	9	0	0	3	19	5	41	69	10
Vacheresse	1	9	1	2	2	15	6	60	86	10
Total F	3	18//6	5	30//6	11	88//8	14	146//10	282	33
Rossinière	1	14	2	16	4	51	3	43	124	10
Vollèges	3	11	0	0	1	10	6	75	96	10
Leysin	0	0	2	14	4	42	6	50	106	12
Total CH	4	25//6,2	4	30//7,5	9	103//11	15	168//11	326	32
Total	7	43	9	60	20	191	29	314		65
Averages	6,1		6,7		9,6		10,8			

Y = Young / **F**=Female / **E**=Elder / **M**=Male

Even though we interviewed three times as many men than women across both age groups for both countries⁹¹, Table 12 shows that there are close numbers of young and of elder women interviewed in each country sample, as well as of young and elder men. The elder women have expressed some more conflicts than younger women (difference of 0,6), so have the elder men expressed more conflicts than the younger men (difference of 1,2). It seems that the age factor is more determining than the gender factor, which as shown before is largely influenced by the occupation variable. However, considering the large variations between the Communes' results and the relatively small size of interviews' sample (especially when considering smaller groups of interviews according to the occupation, age and gender categories), we can only propose some hypotheses that need further testing before concluding on generally valid patterns. With these precautions in mind, we notice the following differences according to age, gender and place:

- In more urban and tourism-oriented Communes (Châtel and Leysin), the young men have expressed more conflicts than their homologues in rural types of Communes (no interviews for young women for these Communes) (Table 11);
- In rural and dormitory types of Communes (Nancy, Vacheresse, Vollèges), there is a clear generational gap, with the young less concerned about forestry than the elder (Table 11);
- The young women and young men from the Swiss sample have expressed more conflicts than their homologues in France. We saw that these differences concerned mostly the conflict themes related to forest *economy*, *urbanization* and *conservation* (Figures 29-30);
- For the French sample, it is the young, who have expressed most forest *management* related conflicts, and for two French Communes out of three (Nancy/Cluses and Vacheresse) the women and the young have expressed more conflicts related to both forest *management* and *recreation* (Figure 30).
- The only issue for which women have expressed more conflicts than men was for the French sample about *natural risks*. And for the Swiss sample, it is only about *urbanization* that they expressed as many conflicts as have the men (Table 10).

⁹¹ This irregularity is due to the snow-sampling method as explained in the beginning of Chapter V.

Figure 29

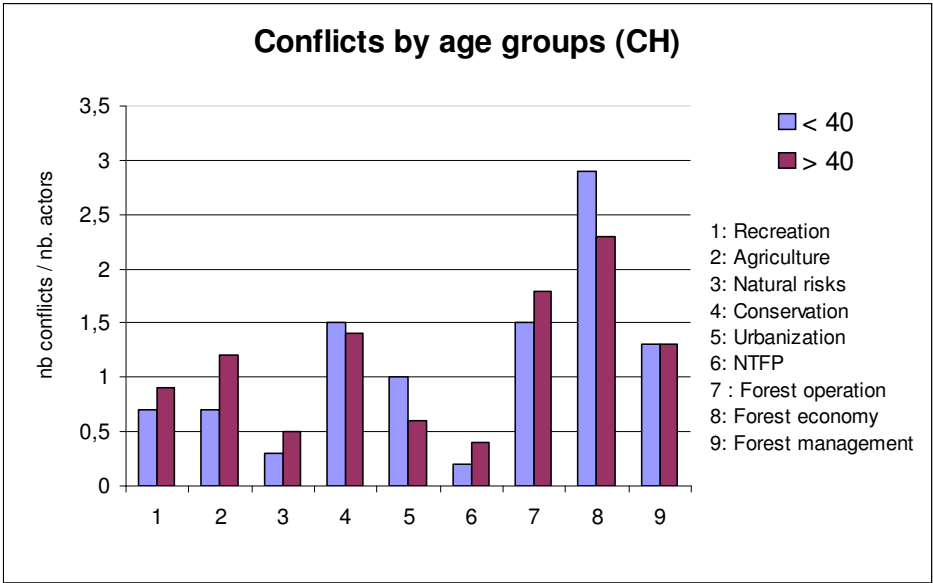
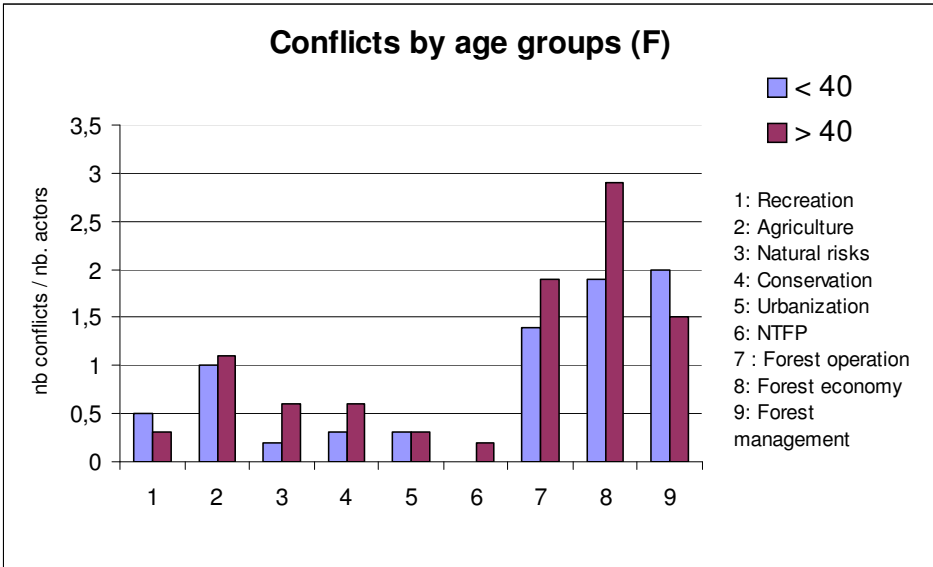


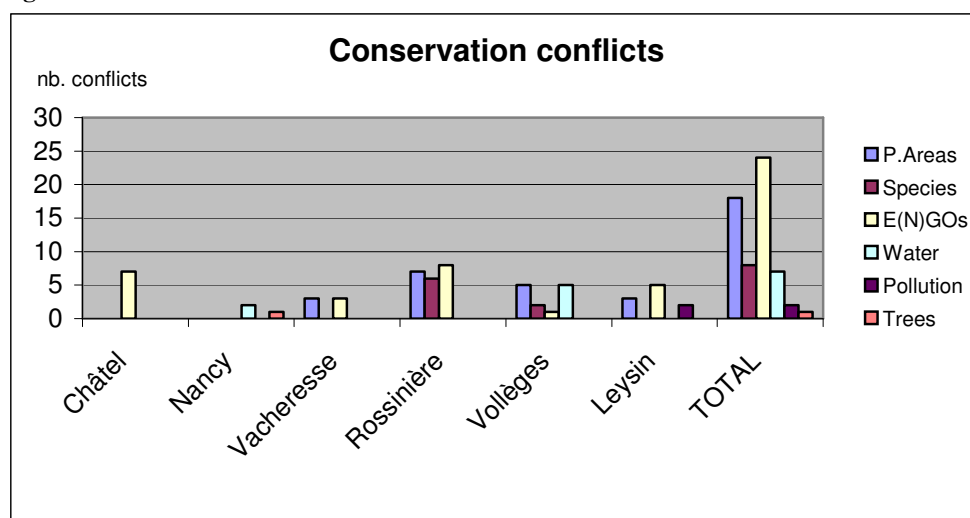
Figure 30



Variations at the level of the subcategories

At this point we discuss only the subcategories of the two main multiple land-use conflicts: conservation and agriculture related conflicts. Looking closer at which Communes mention most land use conflicts in the Swiss sample, it is the ones expressing most conservation related conflicts. The type of issue in the conservation related conflicts that involves most concerns are the creation and the management of protected areas and related conflicts over who holds the decision-making power over local land and resources uses. Text analysis about these conservation related conflicts shows that it is less the content of conservation policies, which is matter of conflict than their structural aspects, meaning shifts in power relations perceived by local actors as constraining their autonomy in deciding how to use local land, forest and water resources.

Figure 31



The subcategories of conservation conflicts are defined on the basis of the comparative text analysis of the interviews, they are: protected areas; reintroduction or protection of rare species; governmental and non-governmental environmental organizations; water conservation; pollution (solid waste and air-borne); protection of trees of particular interest.

Because local actors perceive landscape conservation as conflictive mostly in terms of the invasion of forests into pastoral land as a result of agricultural decline, we did not class it in the conservation category but in the agriculture category of conflicts. Interviews show that negative perceptions related with growing forest surfaces are primarily associated with a loss of pastoral activity and a related loss of local cultural identity, and only secondarily with an aesthetic loss.

In the French Communes, conflicts in multiple land uses are mostly related to *agriculture* activities. However, the frequency of conflicts for *agriculture* in the French sample is the same than for the Swiss sample (Table 3). The analysis of conflicts around agriculture decline reveals the concern for a diminished social capacity in collaborative work for maintaining pastures and forests and that the shrinking farming population is left alone in front of this task. The farmers feel overwhelmed by their work and have often expressed concerns about their eroding representation in municipalities and land use decision-making structures. Some expressed limited availability of winter pastures in the rapidly urbanizing valleys. For both, the French and the Swiss samples, there are similar concerns about *forests invading pastures* (Figures 32-33), the decline in pastoral activities it signifies and the associated closing of the landscape. Present conflicts about pasturing in the forest were only mentioned in Vollèges (Figure 32), but in this Commune local actors are historically engaged in integrating agriculture with forestry activities, constantly adjusting them. Nowadays the

integrative management of these two functions is also valued in terms of landscape conservation: the forested pastures of Vollèges are actually protected by the canton of Valais.

Figure 32

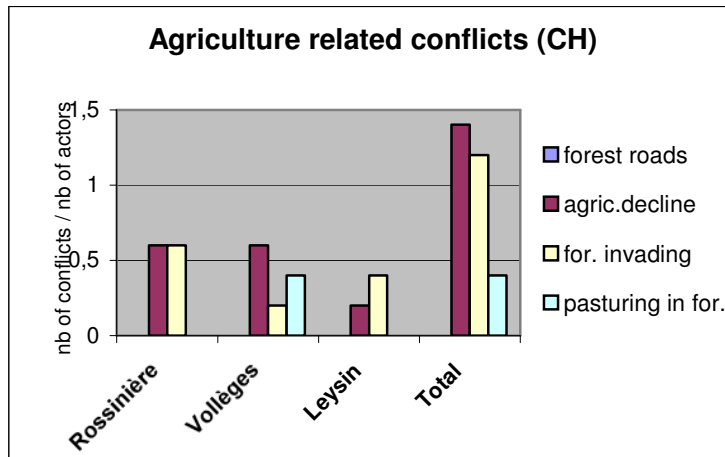
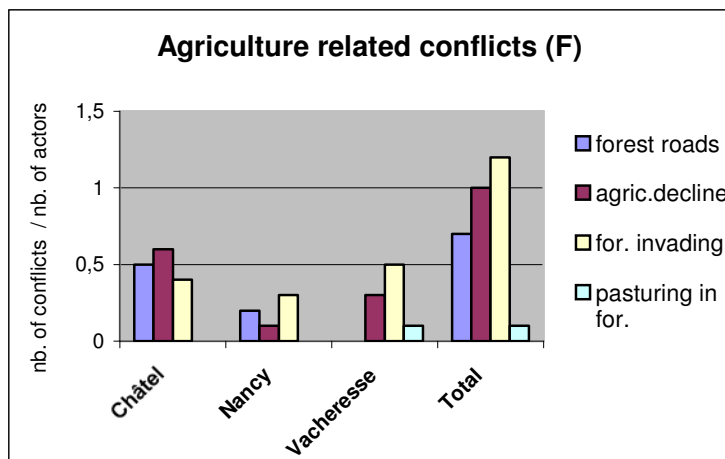


Figure 33

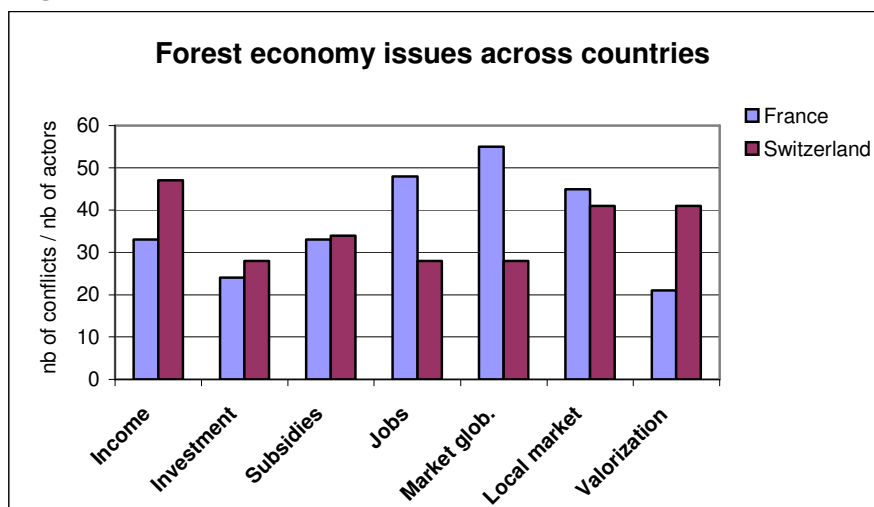


Concerning **forestry conflicts**, we saw that forest *economy* and *operation* related conflicts have been expressed to a similar extent in Switzerland and France, but that *management* conflicts are more often expressed in the French sample.

The subcategories generally defined as forest *economy* conflicts are:

- (1) Decreasing forest income;
- (2) Insufficient communal forest investment;
- (3) Difficult access to subsidies;
- (4) Incompatible interests between the local and global timber economy;
- (5) Lack of access for residents to the local timber resources;
- (6) Decreasing forest related jobs;
- (7) Insufficient valorization of local wood and other forest products.

Figure 34



Comparing the Swiss with the French concerns about forest *economy* along Figure 34, we could suggest that the Swiss tend to ‘overrate’ the concerns about the forest *income* in their discourse. In fact, forest income concerns at least as much the French Communes, however this income is less based on subsidies in France than it is in Switzerland. The Swiss respondents may have overrated the *income* conflict because they knew that these subsidies were likely to be diminished, whereas the timber market situation is depressed. These respondents expressed therefore their anxiety about the impacts of these lost subsidies on their income (mostly a concern to the owners – the municipalities and the private forest owners). The interviews from the Swiss sample reveal also conflictive perceptions about a lack of entrepreneurship and political willingness for valorising local forest resources in local constructions.

Figure 35

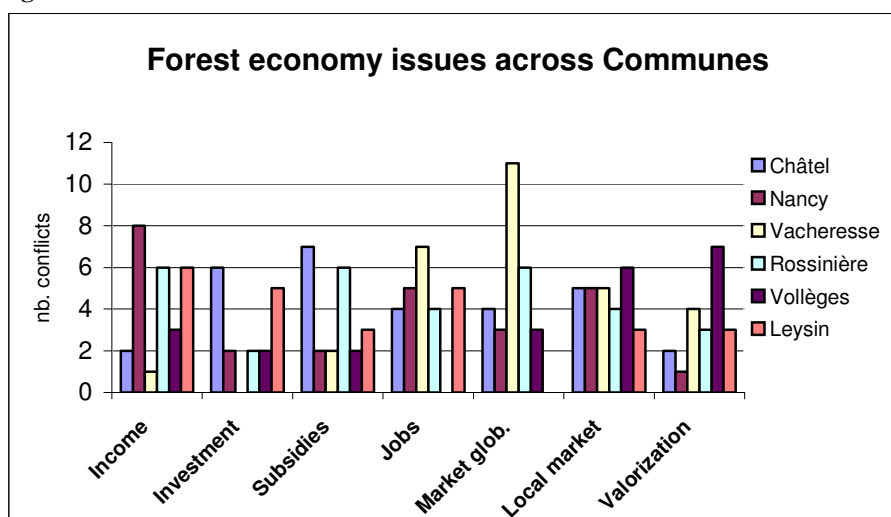


Figure 35 above shows that *job* related concerns are mentioned more often in the French Communes than in the Swiss. The visited French Communes have more forestry related jobs than the Swiss. Indeed, Nancy, Châtel and Vacheresse show in the Figure above more conflicts related

to diminishing forest related *jobs* and the degradation of timber *economy* (*global and local*). The French region has still significantly more forest workers than the regions studied in Valais (Bas Valais) and Vaud (Haut Vaud). The forest economy in the French Alps is more exposed to the presently low market prices for timber and high labor costs than is the studied Swiss region, as the French alpine Communes receive only occasionally forest subsidies. Furthermore, several of the persons interviewed in France said to suffer from unfair local market conditions, because the Swiss sell their timber to local French sawmills for lower prices than the French can offer – taking advantage of their partly subsidized production costs. However, the category explicitly called *subsidies* shows no difference in frequencies between the Swiss and the French samples. In fact, forest subsidies in Switzerland even if higher have been substantially shrinking over the last years. This explains why subsidies are also perceived as matter of conflict in the Swiss institutional context of forestry. The subcategory of *subsidies* mixes perceptions of conflicts associated with amounts of subsidies obtained, with structural constraints in accessing subsidies, and with effects of subsidies on different actors in the regional and transboundary timber market.

Forest operation

The cross-country comparative analysis along the three forestry conflicts categories (*economy*, *operation* and *management*) shows no significant difference between France and Switzerland, in matters of *operation* and *economy* (Figure 12). However, a cross-communal analysis focused at the subcategory level, shows that the matters raising conflicts about forestry *operations* are quite variable from Commune to Commune. This is quite logical since *economic* and *management* questions are mostly determined at supra-communal institutional levels (by the globalizing market and state agencies), while forest *operation* is to a greater extent immediately dependent on local management decisions and is also more immediately visible to residents.

Considering the thematic subcategories of forest *operation* conflicts, interviewees from the Swiss sample have expressed most conflicts about forest *restoration and sanitation* following the storm Lothar and the bark beetle infestation. Secondly residents expressed conflicts in relation to *plantations* - in village areas or in remoter forest areas – mostly for negative landscape impacts of dark mono-species and even-aged spruce plantations. The third issue raising some controversy about forestry *operations* in the Swiss samples is decreased “*cleaning*” or branches removal from forest floors.

In France, *operation* conflicts are mostly related to negative perceptions associated with the idea of *uncleaned* forest floors after logging and then to forest *restoration and sanitation* after Lothar. Third in importance are negative perceptions associated to modern *technologies* used to extract timber and fourth to the *construction of forest roads*. Interviews show that because of the unfavourable market conditions, and no or very little support from the State, forest workers in the French Communes have been even more than the Swiss constrained to downscale or rationalise their logging and hauling techniques. Many expressed regrets about the generalized use of heavy tractors necessitating also the construction of forest roads, in contrast to formerly more often practiced cabling or helicopter extraction methods, that are less damaging to forest floors. The fourth concern in the Swiss sample and the fifth in the French is related to *security* problems in logging operations. This is a more acute type of conflict in Communes where there are intensive recreation uses and urbanization near forest edges.

Figure 36

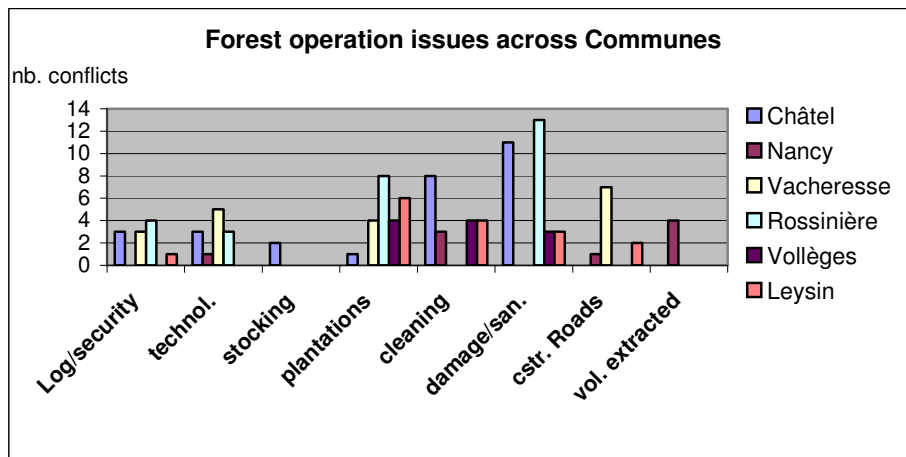
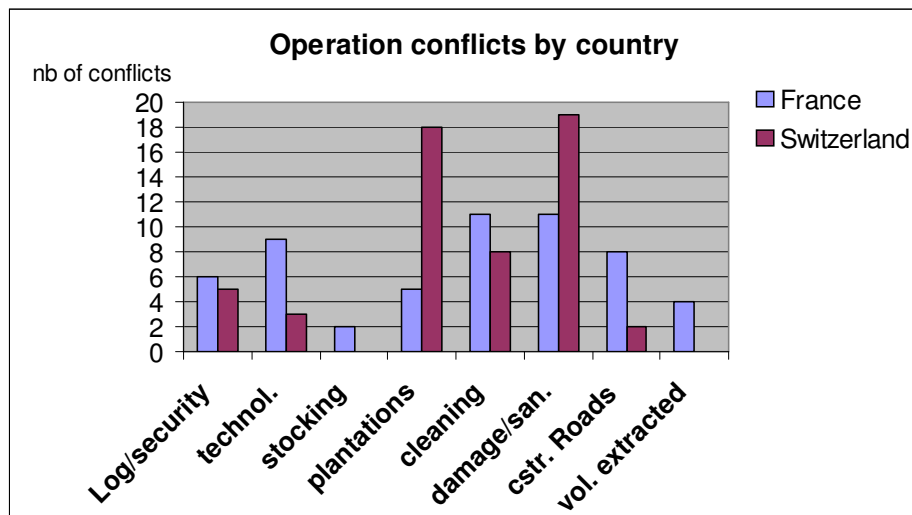


Figure 37

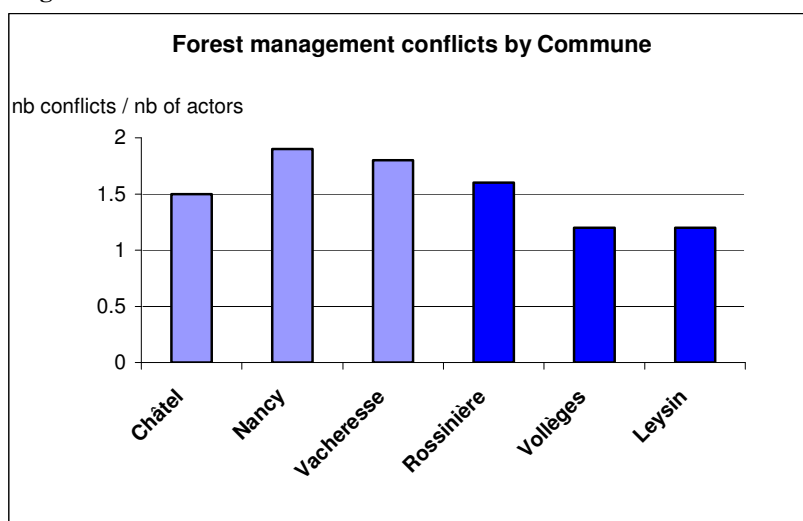


For the French sample, the sector expressing most conflicts in relation with forestry *operations* is the tertiary sector, mostly in relation with *restoration* after damages by Lothar and *sanitation* of forests affected by the bark beetle, secondly about *forest roads*, thirdly about *plantations* and forth about *technology changes*. By contrast, for the Swiss sample, it is the agriculture sector, in relation with forest *restoration* and *sanitation* after storms and bark beetle damages. Concerns that the forest is not “*cleaned*” after logging are mostly expressed by farmers in France, and to the same extent, by the tertiary and the agriculture sector in the Swiss sample (i.e. conflict tables in Appendix).

Forest management

The greatest difference between the French and the Swiss samples in matters of forestry issues concerns *forest management*: in the selected French Communes, *forest management* generates more conflicts than in the studied Swiss Communes (Figure 38).

Figure 38



Forest *management* in the French sample generates slightly more conflicts than forest *operations*, while forest *economy* conflicts are still the top rate (Table 4, Figure 12). A closer look into the subcategories associated with *management* issues (Figure 39) shows that for the French Communes, it is mostly *communication* related conflicts that are of concern, second *ownership* related conflicts, third *divergent forestry approaches* and fourth *forest policing* related conflicts (local foresters forbidding/punishing unauthorized timber extraction). For the Swiss sample, it is the *ownership* subcategory which is most often mentioned, followed by the lack of recognition of *local knowledge* (TRFK) and third the lack of *communication*. While the subcategory of *ownership* related conflicts amounts to the highest frequency of conflicts expressed in the entire sample in relation with forest *management*, results vary substantially between the Communes, as shows Figure 39.

Figure 39

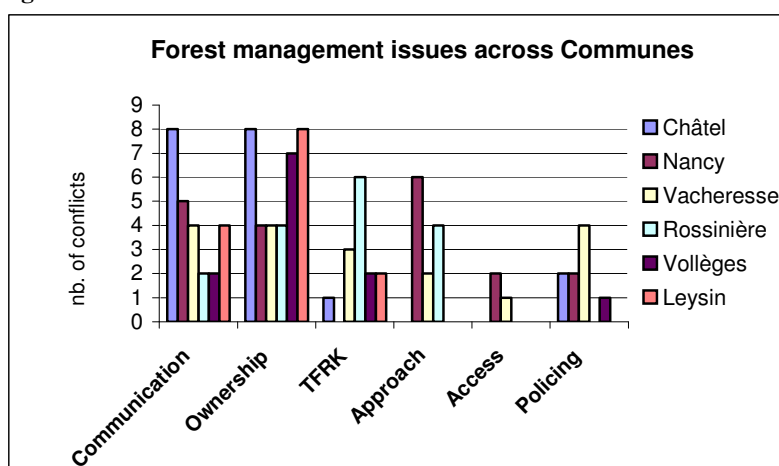


Figure 40

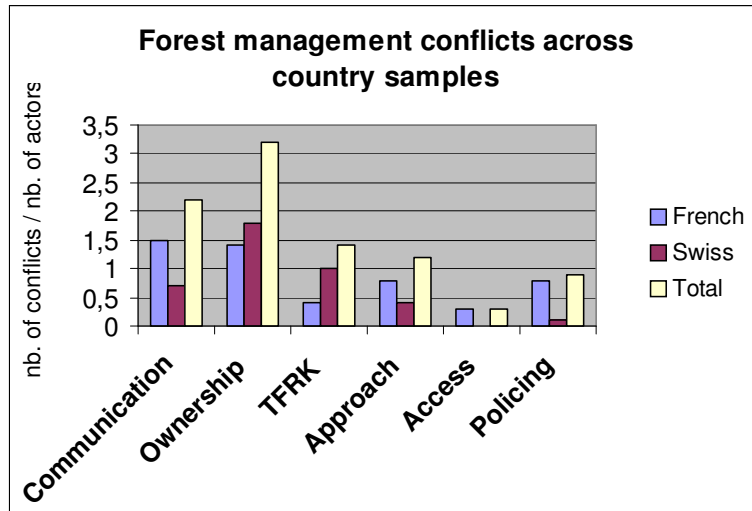


Table 4 and Figure 38 above show that Nancy sur Cluses is the Commune for which interviewed residents expressed the most conflicts related to forest *management*. The smaller break down into subcategories indicates that these management conflicts are mostly related to (in decreasing order): divergent *approaches* to forestry (more or less timber production- or multiple-use oriented); second to difficult *communication* between ONF agents, municipals and residents; third to disputed user rights over forest resources (*ownership*); fourth to *policing* (of logging) and to lack or difficult *access* to the forest (mostly for recreation). Indeed, interviews in Nancy sur Cluses reveal a generational gap regarding forestry *approaches*, which are related with also quite often mentioned *communication* related conflicts. The high frequency of *communication* related conflicts in this latter Commune may not only be due to insufficient capacity of local forest services to communicate with residents but also result from a history of disputed forest ownership, access, use and management claims between Nancy's commoners and the State forest agency (Les Eaux et Forêts and later the Office National des Forêts, i.e. communal profile). Communication difficulties concern also relationships between the municipal officials and the residents. Interviews showed that the municipal officials taking part in forestry decisions did not communicate much with residents.

For the three French Communes, it is the younger actors who have expressed most conflicts regarding *forest management* and in particular most *communication* related conflicts. About the *access* conflicts noticed in the same Commune of Nancy sur Cluses, it is mostly women who expressed difficulty in bringing children in the forest. Some were mothers saying to be unable to bring their young children in the forest because of too much dead wood lying on the forest floor and insufficient footpaths. In Vacheresse, a teacher said not to know where in the forest she could bring her class for conducting some experiential and education activities, as she was looking for an open, safe place with a good diversity of tree species. *Access* related conflicts expressed by women accompanied with children illustrate also a lack of consideration, hence communication between forestry decision-makers (usually men) and women and the young.

Vollèges and Leysin are the two Swiss Communes showing fewer concerns about forest management (Figure 39). In fact, the residents and the municipals from these Communes are little involved in the management of communal forests, having largely delegated this responsibility to the cantonal forest services. Whether to interpret this low conflict frequency as a lack of interest or / and as a good level of satisfaction with forest management undertaken by State agents would need more study. Field observation and a more comprehensive interview text analysis indicate that both are probably true. Leysin has had at the time of the interviews a great forest ownership related issue, as it has been discussing whether it should sell part of its communal forest (170 ha. situated in a nearby Commune – Ormont Dessus). This issue mobilizing Leysin reflects also the more general trend of decreasing interest on the parts of forest owners, be they communal or private, mainly because forest property tends to yield more costs than benefits. In fact both Communes Leysin and Vollèges have minimal or no revenue from their communal forests. The ownership related conflicts in Vollèges have quite a different meaning than the ones of Leysin, they relate to the authority – hence legitimacy - of rights and responsibilities of the bourgeoisie owning the forest, vis à vis State (federal, cantonal) as well as communal authorities' rights and responsibilities.

By contrast, residents from the Commune of Rossinière, which had until the eighties a relatively strong communal forest economy and has nowadays a pro-active development of subsidy-led forestry projects, have expressed most concerns about forest *operation* and forest *economy* among all six Communes (Table 4). Rossinière has, however, a relatively low frequency of conflicts regarding *forest management*. In fact the interviews show a high level of satisfaction with forest *management* in Rossinière which relates with a quite intensive involvement of municipals in forest management and good communication between State forest agents and local actors (by organizing festive events, by using the local press, radio broadcasts, and continuous contacts with municipals). Indeed, only few *communication* related conflicts have been expressed by the interviewed from Rossinière (Figure 39). For Rossinière, we see that the expression of conflictive issues in relation to forest *management* comes mostly from: the lack of recognition of Traditional Forest Related Knowledge (TRFK), and divergences in forestry *approaches* as well as about *ownership* issues. Related to *traditional forest related knowledge* (TRFK) informants in Rossinière expressed quite many concerns (Figure 39). Indeed local traditional knowledge is still practiced by local craftsmen in Rossinière producing wooden tiles and carpenters building chalets along traditional carpentry practices, it is also knowledge of local farmers who traditionally have been doing most of the local logging. Some residents of this Commune said in fact that the State-run and subsidized forest management projects, as well as market pressures, tend to marginalize traditional knowledge and practices. Under this conflict subcategory we listed also the expression of residents who said not to agree with governmental or non-governmental environmental experts' views about impacts on local fauna of the reintroduced lynx (i.e. detail of Rossinière's conflict table, in Appendix). Concerning divergences in forestry *approaches*, interviews revealed conflicting opinions about abandoning the focus on production forestry in favour of multiple use forestry approaches. Several interviewees said that the experience of Lothar made them change their approach from the first to the second – favouring now multiple-use forestry.

It is farmers who expressed most forest *management* related conflicts in both the French and the Swiss samples (Table 6, Figure 22). And the subcategory that farmers mention most in this respect is *ownership* (i.e. conflict tables by Communes given in Appendix). Whereas in the French sample the lack of *communication* is perceived as the second cause of forest *management* conflicts, in the Swiss sample this second cause is associated with a perceived lack of recognition of local *forest related knowledge* and – to the same extent - about divergences in forestry *approaches*, and *policing* related conflict (Figures 41-42). Be it for the perceived lack of *communication*, of recognition of TRFK, or for conflicting forestry approaches and *policing* related conflicts, all these

results suggest that farmers feel they are insufficiently considered and involved in current forest *management*. However, text analysis shows that they do hardly express this general perception in explicit and direct terms.

Figure 41

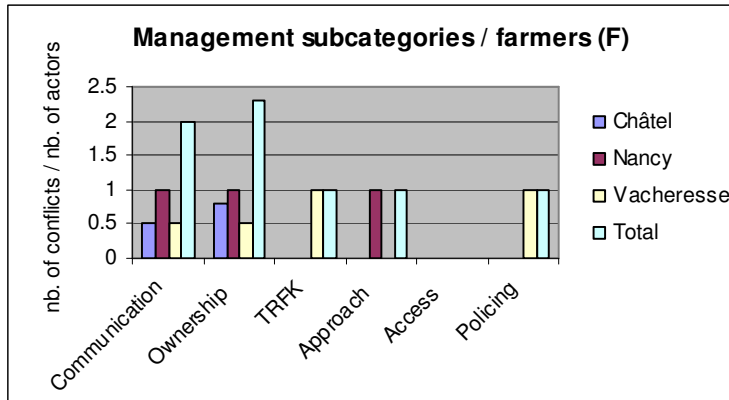
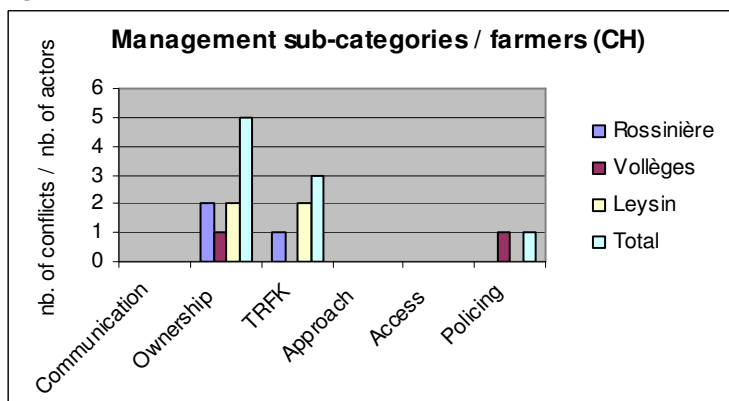


Figure 42



Beyond forest *management* issues, exploring relations between the conflicts most expressed by farmers (considering the nine conflict categories and their subcategories), we notice a persistent conflict line separating the farming from the forestry sectors. This line of conflicts crystallizes around questions such as: who should pay for the construction and reparation of damaged forest and pastoral roads; who can access more or less easily to forest products; who should clear the forest invading into pastures; who works and who pays for maintaining the forest and who benefits from it? The conflict between agriculture and forestry is also one between private and public owners, between local know-how versus scientific or technical expertise, between local users-centered versus state-administrated resource management. In some Communes it is the farming sector (second far behind the tourism related sector), that fares better than the forestry sector (like in Châtel), in others it is the forest sector (like in Vacheresse and Nancy sur Cluses).

C. Value analysis

Because we noticed that much of the interview text did not refer to *conflicts* but still expressed different perceptions about the local forest, we questioned what this “rest” of the discourse was about. We noted then, that this “rest” was mostly about forest related *values*. Therefore, we started anew the systematic analysis of the interviews, coding this time text referring to different forest related values. Again using the grounded theory approach, we induced and distinguished from the 65 interview texts five categories of forest values, which core concepts are: *Resource*, *Environment*, *Protection*, *Patrimony*, *Recreation*. Then we further crystallised for each one of these core concepts a series of subcategories as follows:

I. Resource

- 1) A place of work, a source of revenue and jobs;
- 2) A pool of feeding products (game, fruit, pasture for livestock);
- 3) A source of material for energy and construction.

II. Environment

- 4) An element of quality of life procuring health and security (quality of water, air, etc.);
- 5) A landscape one appreciates from home, work or during displacements;
- 6) An habitat for a diversity of animals and plants;
- 7) A place to observe and learn about nature.

III. Protection

- 8) A protection against avalanches, rock fall, inundations, mud and land slides;
- 9) A regulator of climate, atmospheric and water cycles.

IV. Patrimony

- 10) A territory of private ownership;
- 11) A common territory – belonging to a community of “us” or to the public “all”;
- 12) An element of the constructed patrimony - architecture, crafts and implements;
- 13) A living legacy of work and know-how transmitted across generations;
- 14) A place for social exchange and binding (families, friends, partners, associates...);
- 15) An element of collective and personal identities;
- 16) A place for - and an object of - festive and cultural events;
- 17) A pool of symbols feeding artistic and spiritual (re)productions.

V. Recreation

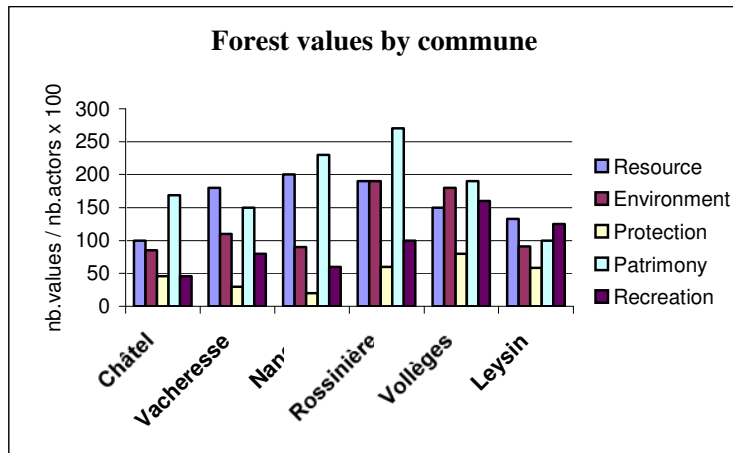
- 18) A place to rest and to contemplate;
- 19) A space for sportive activities;
- 20) A place to play for children – socialization games;
- 21) A refuge from urban constraints and rationalized spaces;
- 22) A sensorial experience (smell, taste, touch, hearing and sight).

Considering the above listed categories of values, the following sections present the findings about variations in forest values according to the places studied (Commune, country and region) and to the actors interviewed (considering mostly their occupation, age and gender).

Place based variations in core values

Figure 43 presents the results for all five core categories of values presented above: considering the forest as a *resource*, an *environment*, as a *protection* against natural risks, as a *patrimony* and as a place of *recreation*.

Figure 43

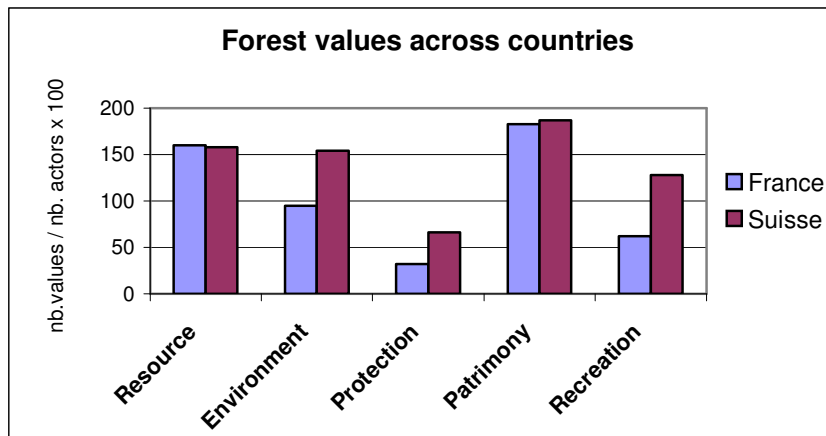


Forest values by Commune

	Resource	Environment	Protection	Patrimony	Recreation
Châtel	100	85	46	169	46
Vacheresse	180	110	30	150	80
Nancy	200	90	20	230	60
Rossinière	190	190	60	270	100
Vollèges	150	180	80	190	160
Leysin	133	91	58	100	125

Number of values divided by number of actors interviewed in each Commune x 100

Figure 44



The results show the number of values expressed by the interviewees in each country, for each core category. They are based on averages calculated by dividing the number of values expressed by the number of interviewees encountered in each place.

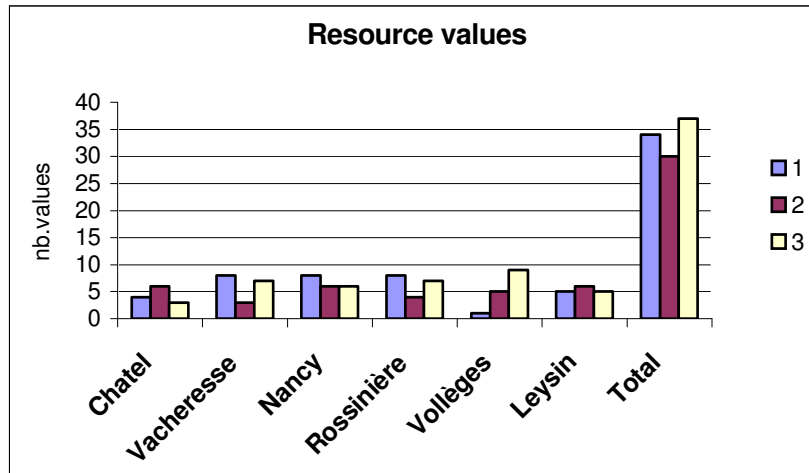
The Figure above shows that the leading average value for all six Communes is the forest perceived as *patrimony*, the second is the forest valued as a *resource* and then as an *environment*; follow values of *recreation* and finally *protection*.

There are fewer variations in the expression of values among the Communes than there are variations in the expression of conflicts. The two leading values *patrimony* and *resource* have about the same frequencies in a cross-country comparison of the samples, while the *recreation*, *environment* and *protection* values have been substantially more expressed in the Swiss Communes.

1) Resource values

The Communes in which interviewees have expressed most values for the communal forest perceived as a *resource* are (in order of decreasing importance): Nancy sur Cluses, Rossinière, Vacheresse, Leysin, Vollèges, Châtel. Comparatively, it is the Communes having the greatest timber production, for which timber revenue are still a substantial part of the communal income, and having least developed tourism, that value the communal forests mostly as a *resource*. Figure 43 above show that these Communes are Nancy sur Cluses (F), Rossinière (CH) and Vacheresse (F). These three Communes value the forest in particular as a *source of income and jobs*, secondarily as a resource of wood for *energy and construction* uses, and thirdly as a source of *feeding products* (Figure 45). When considering the results for the entire sample, we see that it is the source of wood for *energy and construction*, which is the leading resource value.

Figure 45

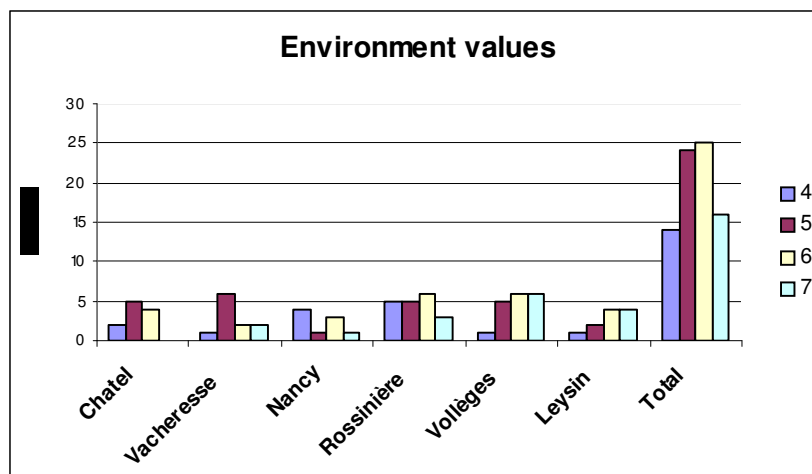


- 1) *Forest as a place of work, a source of revenue and jobs;*
- 2) *A pool of feeding products (game, fruit, pasture for livestock);*
- 3) *A source of material for energy and construction.*

2) Environment values

The Commune where most *environmental* values have been expressed is Rossinière. The subcategories of values most mentioned were in this case: *habitat* (fauna mostly) and then *quality of life* and *landscape* values (Figure 46). In this Commune landscape values have been raised to public discussion by the regional office of tourism that promotes also the natural regional park and Biosphere Reserve project. A photography contest which theme was to illustrate changes in the landscape was organised by the same office, all the interested were invited to bring old and new pictures showing these changes. In Rossinière, which has a long experienced of depopulation and economic decline, several informants residing in the Commune assert their choice to live in this area, because of “the beauty of the place”. In Vollèges (second environment value), residents have expressed a conscious choice of living in this Commune because of the quality of its environment (valuing it mostly as a *habitat* for the fauna and flora, *a place to learn about nature*, and a *landscape*). Inhabitants of Vacheresse (third environmental value with Leysin) value their surroundings environment mostly in terms of its *landscape*, which they say, induces them to stay in the Commune, even though many have to commute quite far to their jobs. In Leysin, the forest is valued to a similar extent as a *habitat* for the fauna and flora and as *a place to learn about nature*. The results show that interviewees from more rural types of Communes exposed to some local conservation projects have expressed more environmental values than the other Communes.

Figure 46



- 4) An element of quality of life procuring health and security (quality of water, air, etc.);
- 5) A landscape one views from home, work, or during displacements;
- 6) An habitat for a diversity of animals and plants;
- 7) A place to observe and learn about nature.

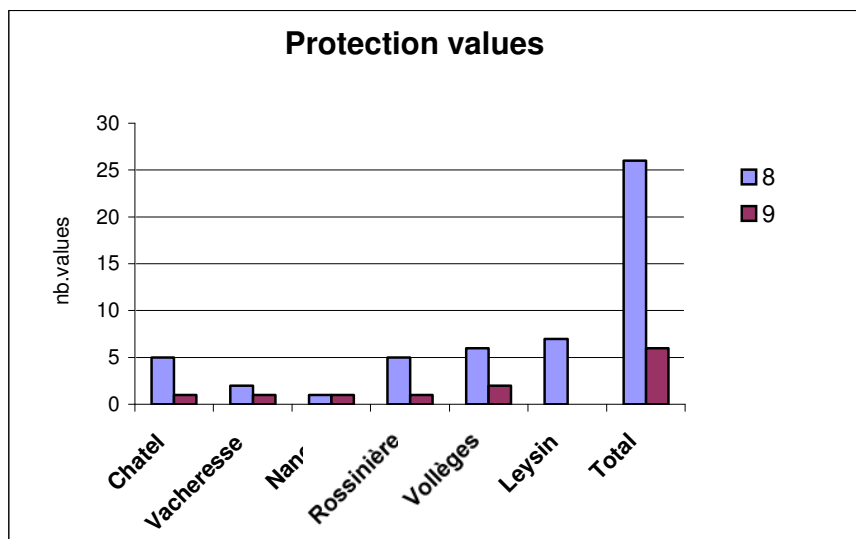
The three Communes, Rossinière, Vollèges and Vacheresse have an attractive rural landscape, while they offer few job opportunities (no or marginal tourism development). These Communes have in the recent years constructed new residencies, where inhabitants choose to install precisely for this rural “ambiance”, as well as for greater land availability and relatively lower land prices than found in more urbanized areas. The price for this quality of life is however rather long distance commuting to jobs, schools and other services that are not available locally.

Values associating the communal forest with a *habitat for fauna and flora* have been mostly expressed in Communes, which have had the experience of some conservation and protected areas initiatives on their territory. It is the same Communes, which showed the highest number of conflict about conservation: Rossinière, Vollèges, Leysin, Vacheresse. Like in the conflict analysis – in relation to conservation - we note higher frequencies of natural *habitat* values for the Swiss sample than for the selected French Communes. The Communes of Vollèges and Leysin show the highest frequencies of values associated with the forest as a *place to observe and learn about nature*. Vollèges has in fact mostly soft tourism, with recreation uses that are more contemplative and education oriented than in more urbanized tourism resorts. The forest service has organized several education initiatives for local schools to discover the restored and protected ponds on the higher forested pastures of Vollèges. The forest service in partnership with regional environmental associations (like Mountain Wilderness) developed educational-discovery paths valuing the natural and the cultural characteristics of the places visited by the trekkers. Leysin has several international schools and a large population of students living yearlong in the Commune – besides a network of hospitals and quite well developed skiing resort. In Leysin, the municipality values mostly the educational role of the forest service, associating the forest to a *place to observe and learn about nature*. This may in part be due to the fact that the municipal official in charge of communal forestry has been since long the same representative than the one responsible for the communal school (in former times forest revenues would also pay for the Commune’s elementary school). For Leysin having substantial conflicts around its nature reserve and about projects of infrastructure development affecting its communal forest, local actors have expressed a good number of values associating the communal forest with a *habitat for fauna and flora*.

3) Protection values

Comparing with the other four categories of values, protection values (against avalanches, rock fall, inundations, mud and land slides and for the regulation of water and climatic cycles has been least mentioned in the interviews, when considering the total trans-boundary area of study. However, for the Swiss Communes, protection values have been expressed twice as much than in our sample of French Communes. Comparing with the conflict rates associated with the protection against natural risks, we saw that they were also more place-dependent.

Figure 47



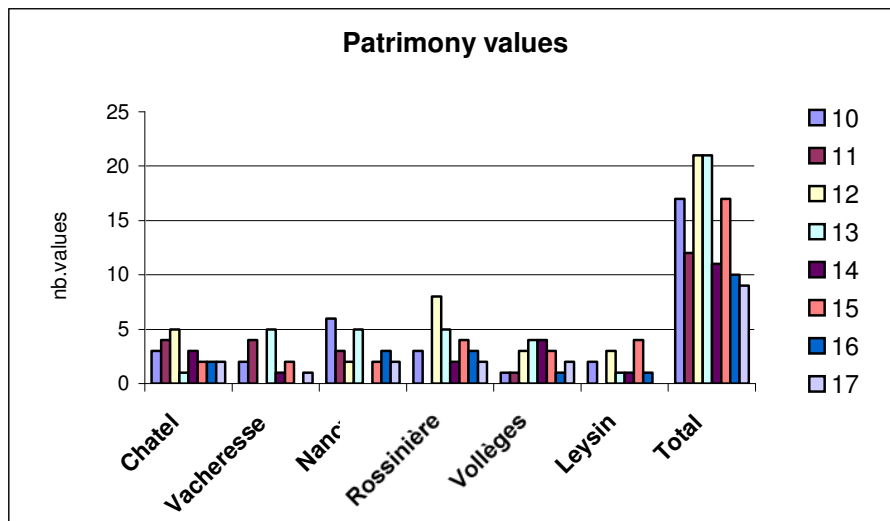
- 8) A protection against avalanches, rock fall, inundations, mud and land slides;
- 9) A regulator of climate, atmospheric and water cycles.

For Leysin, the values associated with the protection role of the forest are more related to the prevention against avalanches (the Commune having a history of avalanches taking lives). Vollèges has more problems with landslides and inundations. Many residents of Rossinière after the experience of Lothar said that it reminded them that without the forest, their very existence in this mountain area would be threatened. In Châtel, where there was the highest conflict rate associated with natural risks (i.e the construction of the protection wall), local actors expressed also the protection values of the forest (regarding prevention against avalanches mostly).

4) Patrimony

Out of the five core values identified and their expression across all Communes, we note that the patrimonial values have been most mentioned. However, this category encompasses a range of quite different meanings – as shows the list of 8 subcategories represented in the Figure 48 below.

Figure 48



- 10) A territory of private ownership;
- 11) A common territory – belonging to a community of “us” or to the public “all”;
- 12) An element of the constructed patrimony - wood in architecture, crafts and implements;
- 13) A living legacy of work and know-how transmitted across generations;
- 14) A place for social exchange and binding (families, friends, partners, associates...);
- 15) An element of collective and personal identities;
- 16) A place for - and an object of - festive and cultural events;
- 17) A pool of symbols and images feeding artistic and spiritual (re)productions.

Among the eight subcategories of values, it is wood used as *construction material* in architecture, furniture making and crafts, that is most often expressed, together with the patrimonial value of the forest representing a *living legacy of work and know how transmitted across generations*. Then come the values associated with the forest as a *private or exclusive ownership*, and the forest valued as *an element of collective and personal identities*. We noted – as identity values - for instance, when the interviewed called back memories from childhood, of work or leisure time passed with parents and grandparents in the forest. Even if these memories were about forests from elsewhere, we noted them when it seemed apparent that the more or less new residents projected these values on the local forest.

The Communes with highest patrimonial values are Nancy sur Cluses, Rossinière and Vollèges. For Nancy sur Cluses and Rossinière, the communal forest has represented until the sixties the main communal income and a key resource for residents’ livelihoods. In both Communes inhabitants did not need to pay communal taxes thanks to high forest revenues. In Rossinière, the architecture is mostly wood based, and several of its chalets are legally protected for their patrimonial values. In Nancy sur Cluses, the architecture is also characteristic, even though great fires have destroyed much of it and wood construction related work practices have died out over the last decades. The third highest rate for the patrimonial values (comparing all six Communes) comes to Vollèges, which values mostly its open pastured forests and its larches as *a place for social exchange and binding*, a place much used by families for picnics and hikes. Châtel expresses also a great number of patrimonial values. Indeed the entire valley of Abondance (meaning ‘abundance’ in good timber), where Châtel is situated, has a rich cultural patrimony of wood based architecture (wooden chalet with sculptured balconies and other wooden ornaments). Châtel’s leading subcategory of forest-related patrimonial values is indeed associated with local wood as *an element of the constructed patrimony*. This architectural patrimony is now also restored for enhancing the place’s

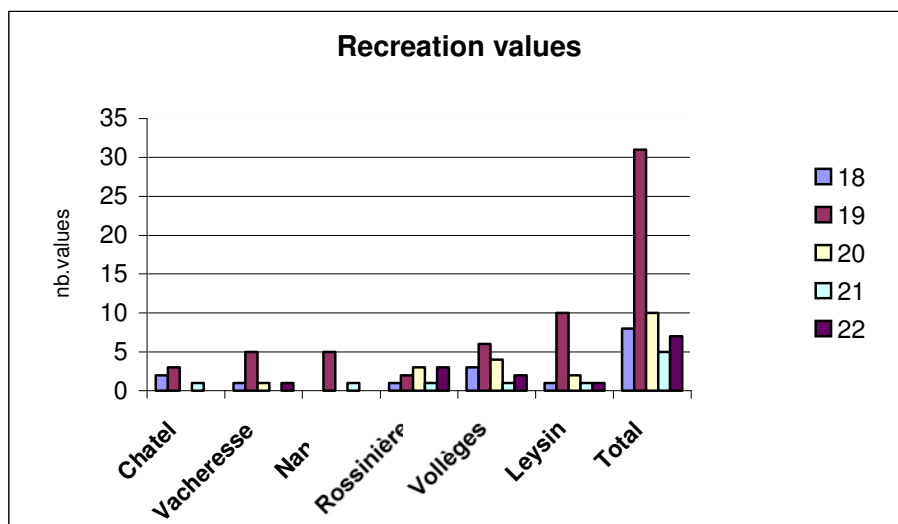
attractiveness to tourists. In fact this patrimonial value of wood as a construction material is in this tourist resort also a *resource* value, since it gives jobs to the people fabricating and selling wooden art and utensils (several artisan shops) and favors the tourism economy. In Leysin and Vacheresse, the interviewed residents have expressed relatively few *patrimonial* values (rated second after the *resource* values), they have also less characteristic wood based architecture and wood craftsmanship is relatively little developed in these Communes. In fact, we note - in a cross-communal analysis - that variations of the results of *resource* and *patrimonial* values are to some extent correlated, the patrimonial values of today being often also the resource values of the past.

Regarding the value 16, *a place for - and an object of - festive and cultural events*, we noted that several Communes have organized or taken part in the organization of festive events, where the forest is represented: such as demonstrations of logging or wood sculpturing skills, of wood crafts and charcoal making, of manufacturing wooden musical instruments, etc. These forest-related festive events are often organized by offices of tourism (Rossinière, Châtel, Leysin) and in most cases are successfully attracting visitors and residents. Even though the *symbolic* value of the forest (value 17) is least expressed, its importance is more obvious by field observation than by text analysis of orally expressed values in interviews. The very fact that the door has opened and the interviewed are willing to share their perceptions about the communal forest is also an implicit expression of this value. Field observation showed us also the symbolic importance of forests and trees, be it the central place given to trees on public squares, trees or forestry related names given to places (cafés etc.) how trees and the forest are represented in local and children's art, in religious pictures, on the symbols used for local flags (i.e. Leysin, Vacheresse, Vollèges), etc.

5) Recreation

Recreation values are – similarly to the *conflict* frequencies related to recreation - more expressed in our Swiss sample, than they are in the French sample. The Communes with highest rates of recreational values are: Vollèges, Leysin and Rossinière.

Figure 49



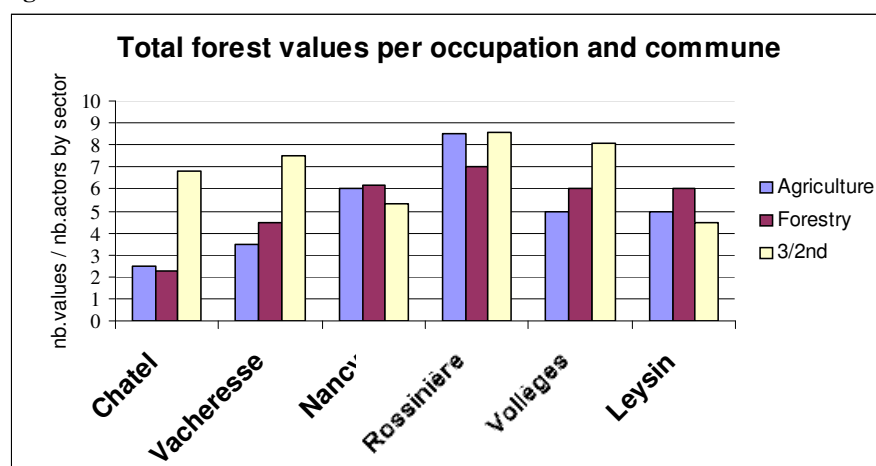
- 18) A place to rest, contemplate and reenergize;
- 19) A space for sportive activities;
- 20) A place to play for children – socialization games;
- 21) A refuge from urban constraints and rationalized spaces;
- 22) An experience for all senses (smell, taste, touch, hearing and sight).

The pastured mountain forest and its landscape is the main recreational attraction of Vollèges, however, mostly for little remunerative day visits. Whether and how further developing tourism in Vollèges – mostly by valorizing the recreational values of the forested pastures - is matter of continuous deliberation among residents and municipals of the Commune. Inhabitants expressed the value for their own recreational uses of these places too. For Leysin, coming second in the recreational value rating, the forest is quite intensively used for year round sportive activities – mountain bikers, hikers, riders, joggers, cross country skiers etc. Forest uses in Leysin resemble those of urban type of forests. The forest service of the Commune spends considerable time and resources in installing infrastructures in the forest to ease these sportive activities. Leysin counts a large population of students, sports' clubs, including an outdoor childcare center located in the forest. The Forest service is also mobilized for tourism animation: during the high-season it takes part in organizing festive events, where the forest, trees and wooden products are regularly represented, it decorates streets and buildings at Christmas time. However, we note, like in the conflict analysis, that for both our sample's tourism-oriented Communes, Leysin and Châtel, forests are in general relatively little valued. In this respect, it is significant that both Communes don't involve forest workers among their municipals' team and both have local foresters saying that they have difficulties mobilizing municipal resources and attention on their forest projects.

Occupation based variations in forest values

Like in the conflict analysis we distinguished results in the expression of values according to the main occupation of the interviewed actors. Figure 50 below shows that the actors working in the tertiary and secondary sectors have expressed more total forest values in four Communes out of six, than did the forest workers and the farmers.

Figure 50

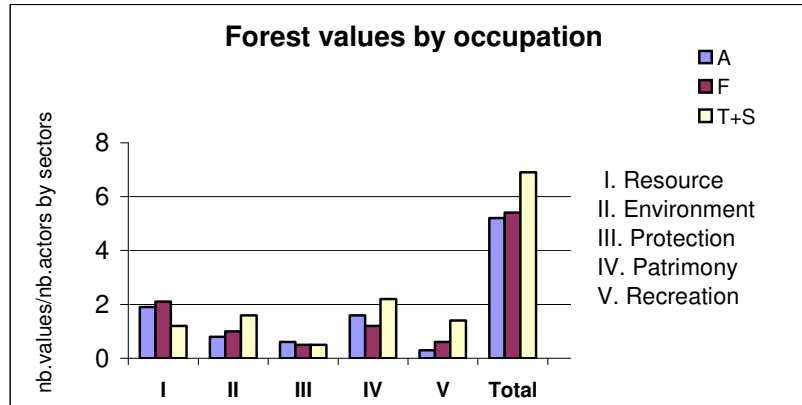


For each Commune, we counted the number of values (for all five core categories) expressed by the actors interviewed according to their main occupation (see value tables in appendix). We divided the total number of values expressed by the occupational groups by the number of actors interviewed for each occupational category in each Commune, in order to have comparable results across the six Communes.

We see in Figure 51 that the greatest difference among the occupational groups is due to the differentiated values attributed to the *resource* and the *patrimony* core values. The forest workers

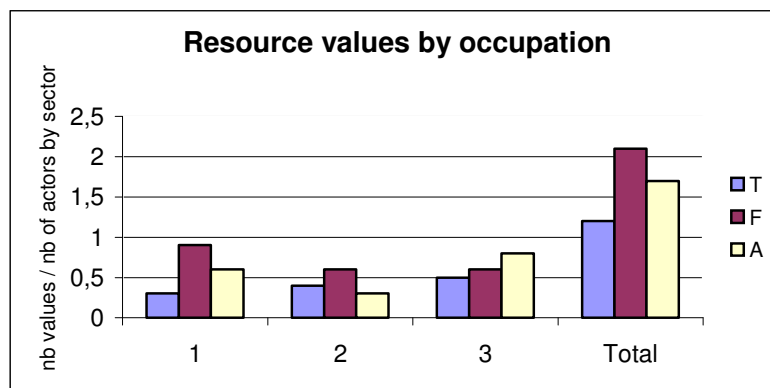
and then the farmers emphasize most the *resource* values, while the tertiary and secondary sectors mention mostly the *patrimony* and then the *recreation* values.

Figure 51



For the subcategories associated with the *resource* value, we notice that forest workers are mostly interested in *income* and *jobs*, secondarily as *a source of feeding products* and to about the same extent in the forest as a *resource of construction material* (Figure 52).

Figure 52



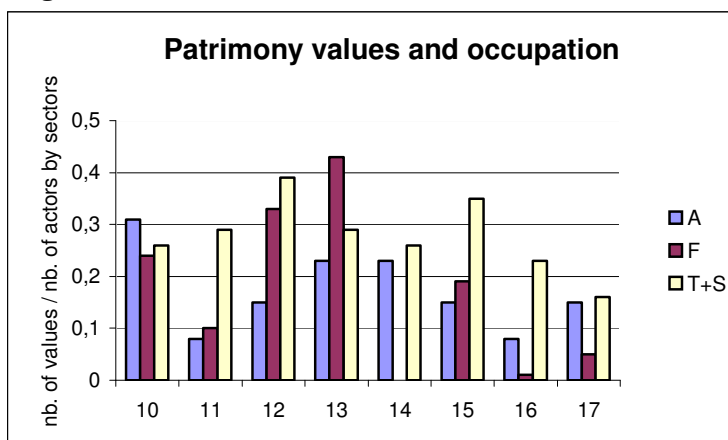
1) Forest as a place of work, a source of revenue and jobs;

2) A pool of feeding products (game, fruit, pasture for the animals..);

3) A source of material for energy and construction

Considering in some more detail the various subcategories associated to the leading patrimonial value (Figure 53), we note that forest workers patrimonial value associated with the forest is perceived first of all as a *living legacy of work and know how transmitted across generations*, then as an element of the *constructed patrimony*, finally as a *private ownership*. We see that the forest workers perceive the forest more as a *private* than a *public* patrimony. We notice, however, that the tertiary and secondary sectors value the forest mostly for its value as a constructed patrimony, then as an *element of identity* and thirdly as a *public property*. We note interestingly that the forest workers do not at all express the value of the forest as a *place of social exchange and binding*, with this value is not negligible for the tertiary and secondary sectors nor for the farmers. The same difference is to varying extent also noticeable in Figure 58 for the forest values associated to the forest as *place of festive and cultural events*; and the forest as a *pool of symbols*.

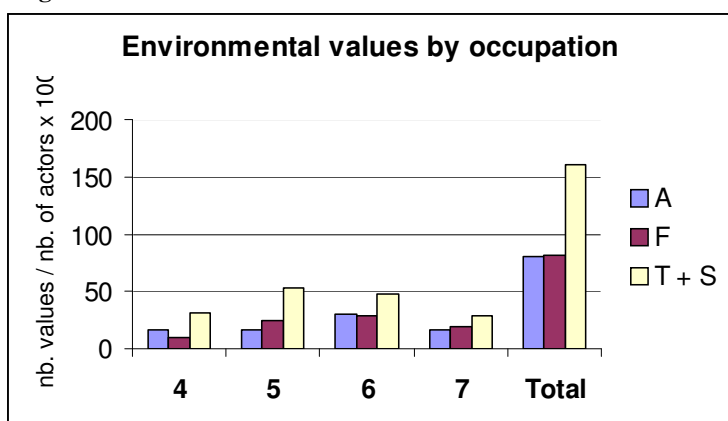
Figure 53



- 10) A territory of private ownership;
- 11) A common territory – belonging to a community or to the public;
- 12) An element of the constructed and crafted patrimony;
- 13) A living legacy of work and know-how transmitted across generations;
- 14) A place for social exchange and binding
- 15) An element of collective and personal identities – marking origins;
- 16) A place for - and an object of - festive and cultural events;
- 17) A pool of symbols and images

Concerning environmental values we note (Figure 54) that the tertiary sector has mentioned substantially more values for all sub-categories. The leading subcategory is the *landscape* value, shortly followed by the forest valued as a *habitat*.

Figure 54

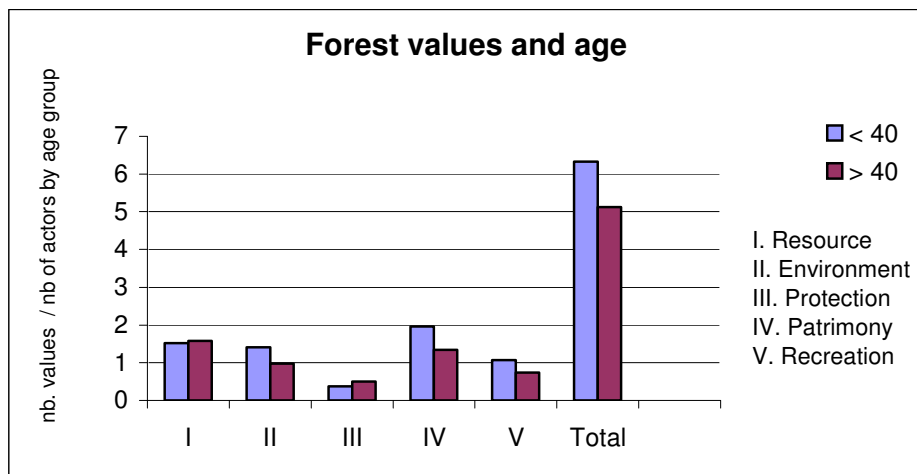


- 4) An element of quality of life procuring health and security (quality of water, air, etc.);
- 5) A landscape one views from home, work, or during displacements;
- 6) An habitat for a diversity of animals and plants;
- 7) A place to observe and learn about nature.

Age-based variations in forest values

Age based differences in the expression of values may be less reliable than in the conflict analysis, because there were less values expressed than were conflicts. We note, however, in Figure 55, that the young tend to express significantly more forest values (adding up all five core categories of values) than they tended to express conflicts (relatively to the elder). The young expressed, in order of decreasing importance: *patrimony*, *resource*, *environment*, *recreation* and finally *protection* values. Their values are superior to the ones of the above forty years old for *patrimony*, *recreation* and *environment* – and slightly for *nature*. But they express slightly less *resource* and *protection* values, than the actors above 40 years. In the conflict analysis, we had in comparison – adding up all types of conflicts – substantially lower frequencies of conflict for the below 40 years old – comparing to the above 40 years old. We should retain that the young expressed in particular more patrimonial values.

Figure 55



The Y axis represents the number of values expressed by each age category divided by the total number of actors interviewed in each age category for the total sample area (Swiss and French Communes). We need to compare averages because we have not interviewed the same number of young and elder people: we have 27 interviewees below 40 years old and 38 above 40 years old.

Patrimonial values are particularly strong among the younger age cohorts of interviewed from the Swiss sample (total average of 2,15) while the above 40 years old have only an average of 1,58. The young in France have also expressed more patrimonial values than the elder, however with a less marked difference (1,86 versus 1,74 for the elder). The elder of Switzerland have expressed fewer values than the elder of France.

We see in Figure 56 below that the younger have expressed more values than did the above forty years old in the Communes that have more conservation interests (like Rossinière, which is otherwise among the least urbanized and more soft tourism oriented Communes of our sample) or/and that are more tourism oriented like Châtel and Leysin. Vollèges combines a little of both characteristics (an urbanized population in a rural environment with some conservation interest). In Châtel and Leysin - the two Communes having most developed tourism - the above 40 years old ones have expressed very few values. It seems that the elder in these Communes have abandoned the forest, while the young express a regained interest in it. Indeed, the below 40 years old of Châtel and Leysin have expressed significantly more values than the below 40 - more also than the

young in the two Communes where the forest is still an important resource: Nancy sur Cluses and Vacheresse. This confirms the results represented in Figure 55, that the young are less interested in the forest as a resource than as an amenity (patrimonial, conservation and recreation values)

Figure 56

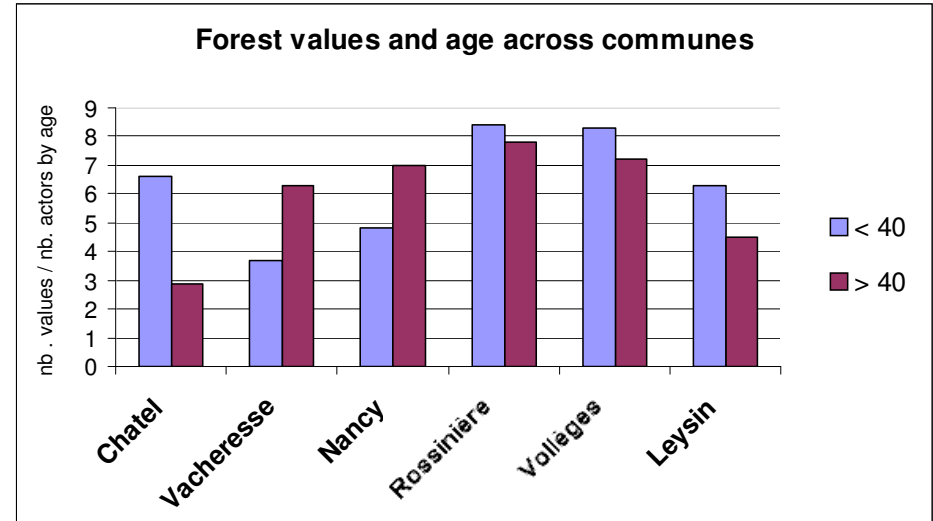
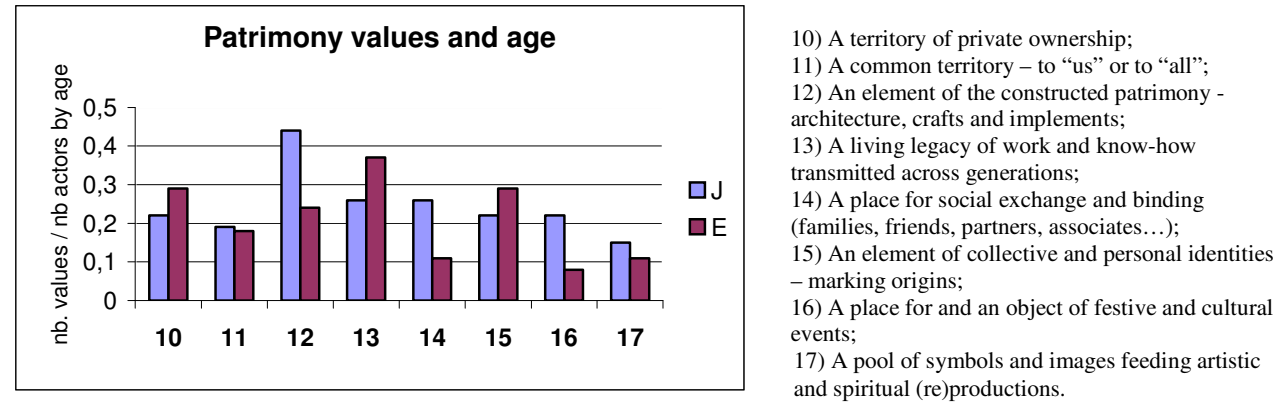


Figure 57 shows that the leading patrimonial value for the young is associated with the wood as material for construction and craft (12), and secondarily for both the living legacy (13) value and the place of social exchange and binding (subcategory 14), however, with stronger expression of values for all other patrimonial subcategories too.

Figure 57



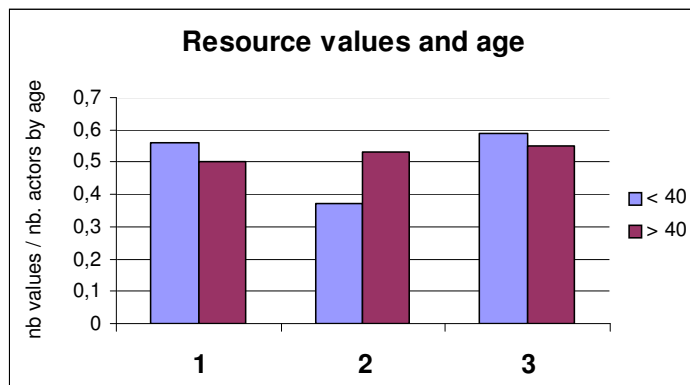
Breaking down the patrimony values in the 7 subcategories identified on the basis of the text analysis, and comparing results between the Communes, shows interesting differences between Nancy sur Cluses and Vacheresse, particularly in relation to how inhabitants appreciate their communal forest in terms of ownership or belonging. The subcategories often expressed by the above 40 years old in Nancy sur Cluses are the first subcategories: as a *legacy* of former generations (13), the second is the forest as *private ownership* (10) and the third, the forest as a

common (11). The elder generation in this Commune in particular (i.e. communal profile) has still a strong binding or perception of appurtenance for its communal forest, which it perceives more as an exclusive common than as a public common. However this sense of appurtenance is based on a memory of local history that is less and less shared by younger generations. Even though the younger value private ownership, they perceive less the communal forest as a *common* belonging in particular to the Commune and its residents, but as a *public* forest open and belonging to 'all'. In Vacheresse, we notice likewise that the value of the forest as a *legacy* of former generations is the leading value of the patrimony core category. However, in contrast to Nancy sur Cluses, in Vacheresse, the interviewed associated the communal forest more to a public good type of forest than to a common property type of forest.⁹²

Figure 58 (below) shows that the *resource* values of the young are a little higher than the above 40 – in both countries' samples. We notice the high concerns of the young about employment generation and about maintaining local *jobs* and diversified *income* raising opportunities. The lower expression of the forest as a *feed* related value by the young is also quite substantially marked in both countries' samples. While for the forest as a source of wood for *construction and energy* the higher interest of the young is substantial in the Swiss sample, while in the French the younger tend to value less the forest as a source of material for *energy and construction* than the above 40 years old. In Châtel the high *patrimonial* value expressed by the young is related more to the valorization of wood-based architecture (subcategory 12) - the local origin of the newer constructions in wood being not considered as important - than to a local *resource* of timber for *construction* and for *energy* uses. Comparing the younger with the older generations in Nancy sur Cluses, we note that the below 40 have lower *resource* values than the above 40. In Nancy the younger generations have completely turned their back to the forest economy to go working in the secondary sector of the valleys. In Vacheresse however, we note more interest by the younger in the *resource* values, it seems that the production of fuelwood and possibly the surviving institution of affouage, means that there is indeed more economic and subsistence based relations between the residents and their communal forest in Vacheresse, than there are in Nancy sur Cluses, where these practices and institutions have been abandoned. In contrast to Vacheresse and Nancy sur Cluses, Châtel shows very low *patrimonial* and *resource* values expressed by the above 40 years old. This confirms what we found in the conflict analysis that the elder generation – the ruling generation - has abandoned the forest sector (i.e. also the results of the conflict analysis for Châtel. Even the forest sector of Châtel expressed very few forest values.

⁹² Indeed, in Vacheresse, the local timber economy was soon integrated in the state-led timber market. A monography given by an interviewee reveals indeed, that Napoleon III had a hauling path constructed on the river of Vacheresse *La Dranse*, in order to facilitate timber floating towards urban centers in 1860 (communal profile). M. Ticon (undated) : Bonneveau, Vacheresse, Chevenoz: Au Fil du Temps. Annemasse.

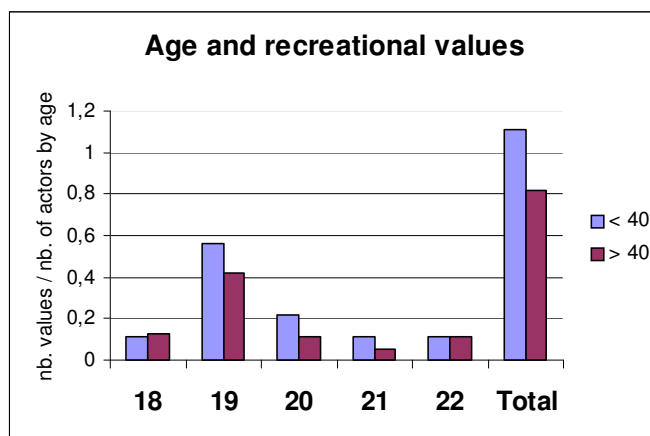
Figure 58



- 1) Forest as a space of work, a source of revenue and/or jobs;
- 2) A pool of feeding products (game, fruit, pasture for livestock);
- 3) A source of material for energy and construction

For *recreational* values, Figure 59 shows that the below forty years old (for the entire sample) mentioned in general more recreational values than the above forty years old and in particular, more sport related values, and in second order of importance, the forest as a place to *play* for children. However, the younger valued less than the people over forty years old the forest as a place to *rest and contemplate*. Both age groups valued the forest equally as a source of *symbols* (subcategory 22).

Figure 59

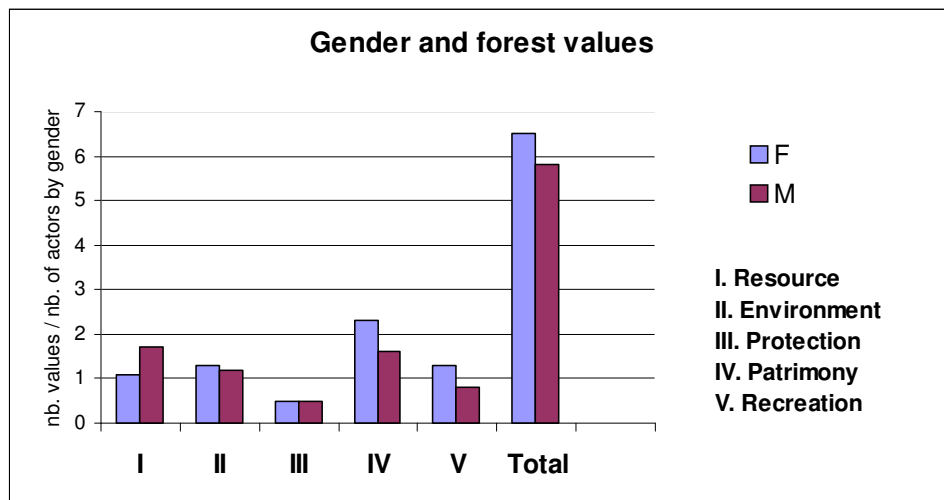


- 18) A place to rest and to contemplate;
- 19) A space for sportive activities;
- 20) A place to play for children – socialization games;
- 21) A refuge from urban constraints and rationalized spaces;
- 22) An experience for all senses (smell, touch, hearing and sight).

Gender-based variations in forest values

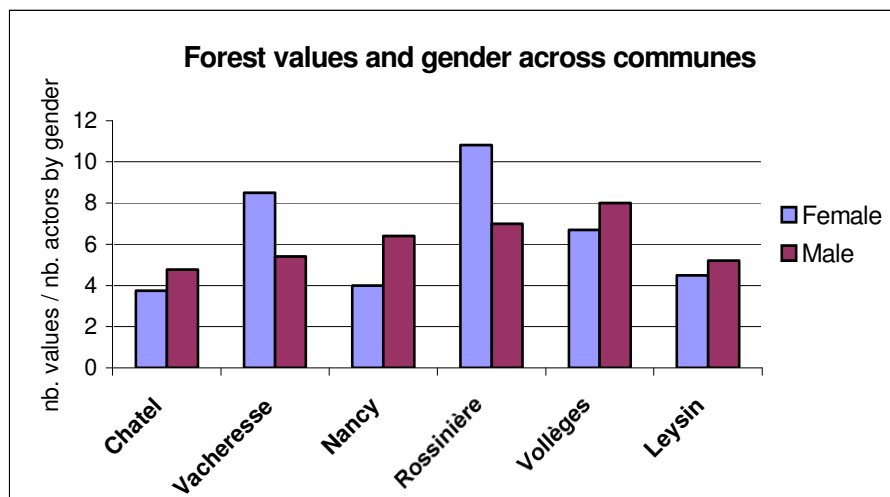
Women have expressed in general more values than men, and considering each one of the five categories of values separately in Figure 60 below, we see that women have expressed more values (in decreasing order) for *patrimonial*, *recreational* and slightly more *environment* related values. They have however mentioned substantially less *resource* related values and show the same results for *protection* values.

Figure 60



The two Communes, where the interviewed women expressed more values compared to men are Rossinière and Vacheresse (Figure 61). Part of the explanation why we have a strong expression of values by women in these two Communes is that we interviewed women who happened to be particularly interested in the subject: a toddler teacher giving a semester-long forest awareness-raising program; a postal officer elected in the municipality and engaged for the creation of a new protected area; and a farmer on an organic dairy sheep farm. Given the relatively small sample of women interviewed (16 out of 65 interviewees) results should not be generalized but can inspire propositions that need further testing.

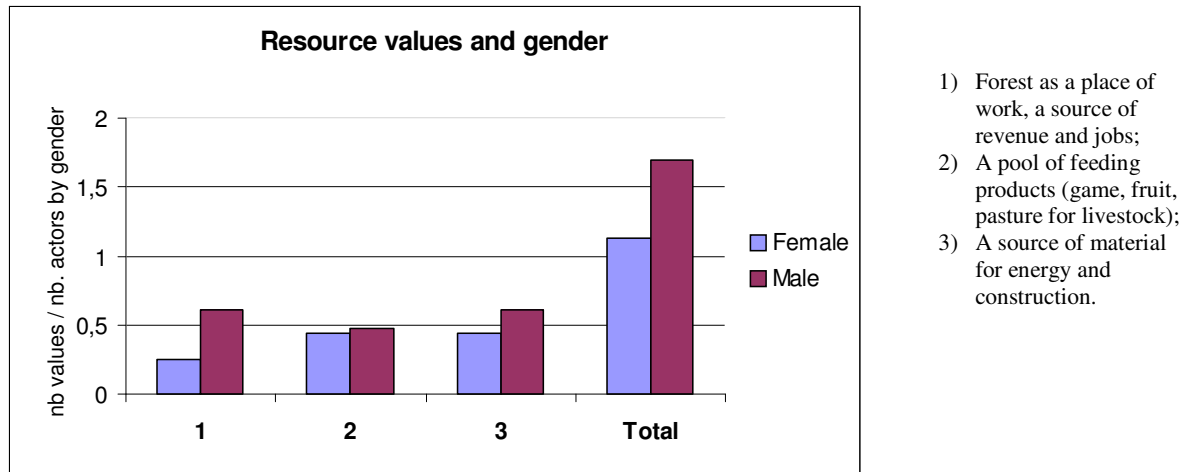
Figure 61



Looking into the subcategories we notice that for the core category of *resource*, for which women expressed in general less values than men, the interviewed women did express about the same extent values in relation with the forest as a *source of feed* (game, fruit, pasture for the animals)

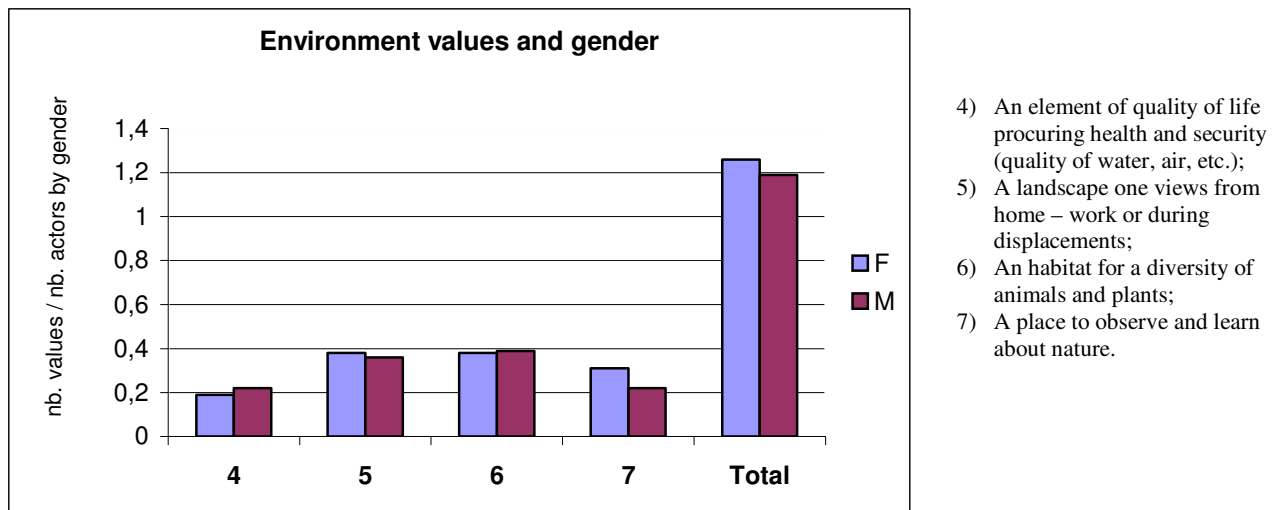
than the men, but less in the other two *resource* categories, especially in *jobs* and *income* (Figure 62). Traditionally women were more active in the forest economy, especially in the collection of fuelwood in form of dead wood lying on the forest floor and in the pastures. It is precisely this work, which is no longer practiced in the higher income countries. We saw that conflicts in relation to forest *operation* revealed the relative important concern of local people about the forest being less practicable and the forest floor less “clean” than it was in former times.

Figure 62



Relatively to environmental values, we notice that women expressed in particular higher educational values, related to the forest. For the other subcategories, Figure 63 below shows that women expressed a few less values about quality of life and habitat values than men, but some more values related to landscape amenities.

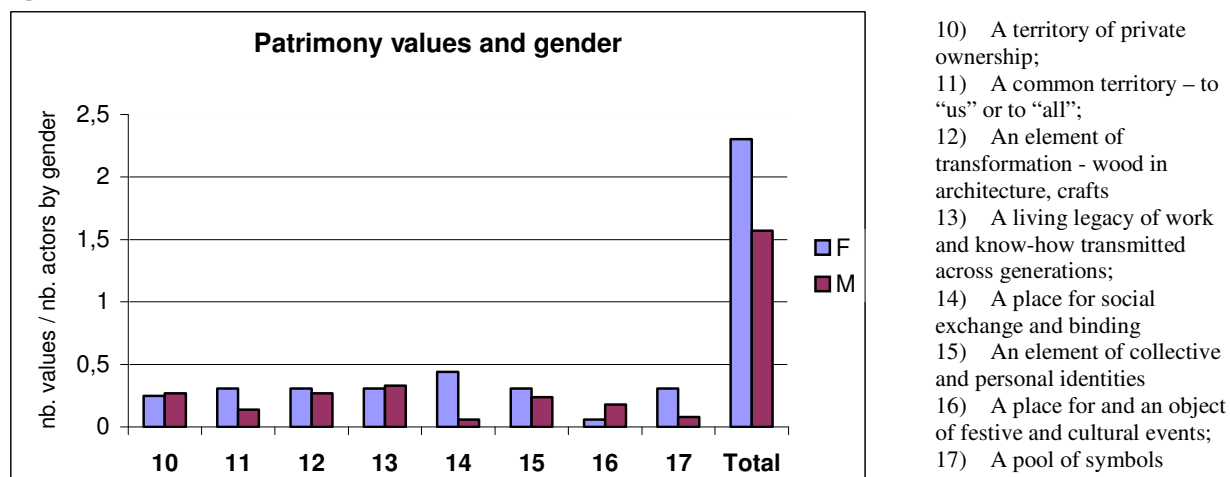
Figure 63



Considering gender and *patrimonial* values we note that women have expressed particularly high numbers for the forest as a *social binding place* – for the family, friends etc. For all other

patrimonial values, women have expressed more interest than men, except for the organization of larger *festive events*. The women (i.e. Figure 64) expressed more values – in particular for the following subcategories (in order of decreasing importance and maximizing the difference with the results of men): *A place of social exchange and binding* (14); *a common territory* – to “us” or to “all” (11); *a pool of symbols* feeding artistic and spiritual (re)productions (17); an element of *collective and personal identities* (15). For the latter value to some extent, and for values 10, 12, and 13 they have more or less the same frequencies than the men.

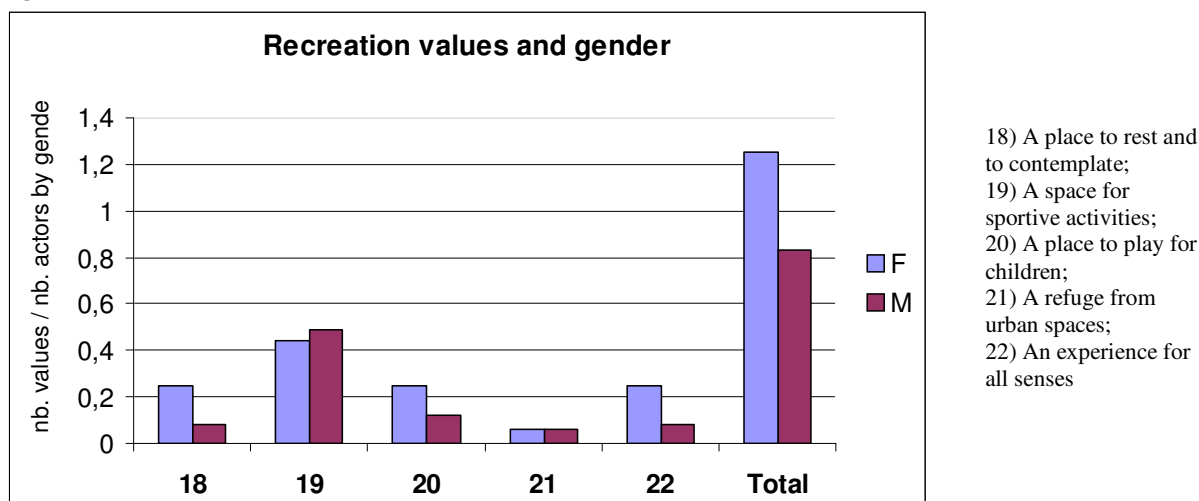
Figure 64



Comparing patrimonial values expressed by women with those of the younger groups (Figure 57), we see that they coincide on a distinguished strong value of the forest associated to a *place of social exchange and binding* (14) and a *pool of symbols* (17). However, the young expressed significantly more values related to the forest as a *transformed and constructed patrimony* (12) and a place or object of *festive and cultural events* (16), while women expressed more values in terms of *identity* (in particular related to the origin of their families) (15).

Women have mentioned more than the interviewed the recreational value of forests (Figure 65). Considering the subcategories, we see that even though women value, like men, the forest mostly as a *space for sportive activities* (19), they value them slightly less than men for this use. Instead, women value significantly more than men the forest as a *place for the children to play* (20), a place to *experience with all senses* and a *place to rest and to contemplate* (18, 22).

Figure 65



In general, we note that the forest values most expressed in the interviews with women are the least recognized by forestry professionals (i.e. above listed recreational values most mentioned by women, and the patrimonial values identified in terms of *social exchange and binding*, Figure 64). Like in the conflict analysis, we note that there is a relation between the variables of gender and of occupation (Table 2 and 12): most interviewed women are active in the tertiary sector, sector that does also express most forest values.

D. Comparing results between the conflict and value analyses

The present section aims at synthesising the results from the conflict and the value analyses in order to understand the overall perceptions of local actors regarding their communal forest. Variations across Communes are much greater for the conflict analyses, than they are for the value analysis, therefore forest conflicts are more place bound than are forest values. It is indeed actors that are closest in closest interaction with the forest that express more conflicts. On contrary, forest values are more often expressed in less place based or more abstract terms and by actors less closely involved with local forestry.

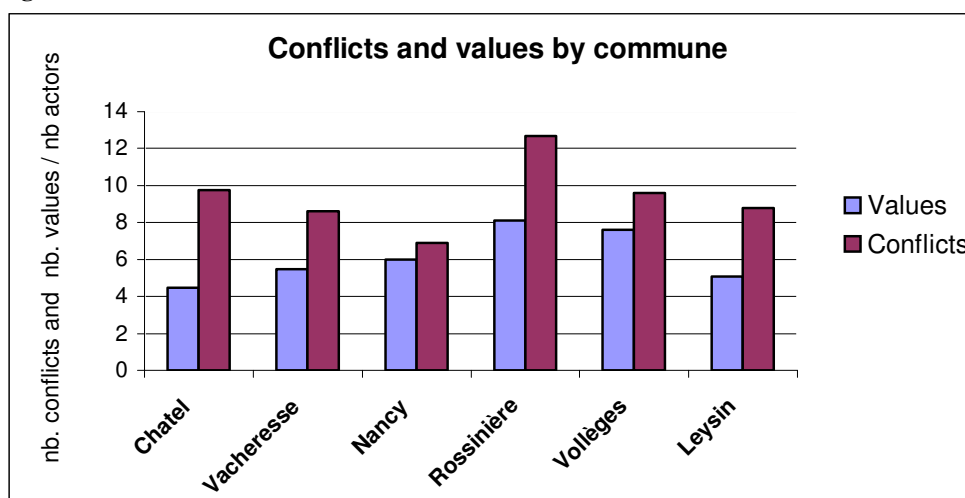
Thematic variations for conflicts and values

Even though the categories of the conflict and the value analyses have been elaborated independently from each other - on the basis of two separate and systematic text analyses of the interviews - we can draw some parallels between them. Both the forest as a *resource value* and the forest *economy conflict* are top issues. The results obtained for the conflict categories of *conservation* versus the value category of *environment* show similarities: both show greater frequencies of conflicts and values for the Swiss sample. This is also the case, when comparing respective conflict and value frequencies found for the category of *recreation*. Furthermore, residents did not give great weight to conflicts nor to values related to the *protection* function of forests against natural risks. Does this mean that there really is little local concern about forest protection functions? While the protection function of mountain forest receives a great deal of attention in terms of training, research, and subsidies in national policies, we can only notice that the gap between this national perception and that of mountain residents is curious.

Place-based variations in conflicts and values

Considering the two Communes with the highest total conflict frequencies (combining the multiple land use and the forestry conflicts) – which are Rossinière in Switzerland and Châtel in France - it is interesting that their communal forests have been a major resource for both communal income and for residents' livelihoods in a near past. Even if this resource brings less return nowadays than twenty to thirty years ago, the memory of the forest being a valuable asset seems to still be shaping current local forest perceptions. Further, for these Communes, concerns about the forest are shared among residents of all occupational groups. Indeed, the residents of Rossinière developed multiple occupational activities, traditionally and in modern times, as a strategy to cope in the context of a relatively low regional economy (marked by a long lasting demographic loss). Châtel is also characterized by a strong integration between the primary and tertiary sectors, mostly between the agriculture and tourism related occupations. The problem in Châtel is that the forest workers have been marginalized from the local economy and local governance structure. Results show that, in this local context, forestry is perceived as less compatible with tourism than is agriculture (i.e. high frequencies of conflicts expressed by farmers with forest management). This is also visible in this Commune's results, where forest workers are the most concerned actors concerning all forest conflict categories (operation, economy and management). Comparing results from the conflict and the value analysis for Châtel, we see that the high conflict frequency for this Commune is not associated to a high value frequency. Whereas in Rossinière and in Vollèges the relatively high conflict frequencies are paralleled with numerous values, as shows Figure 66 below.

Figure 66



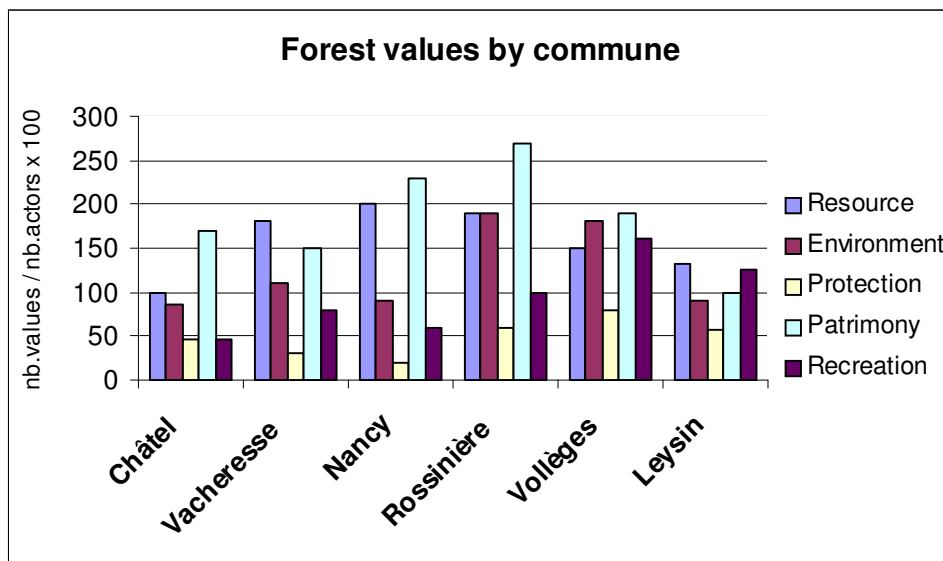
The Y axis shows the number of conflicts (purple) and values (blue) the interviewees expressed in each Commune. In order to compare the results between the Communes, in which we did not interview the same number of actors, we divided the number of values and conflicts by the number of actors interviewed.

The expression of conflicts is therefore often an indicator of residents' interest in their Commune's forests. It is indeed the three Communes having a forest revenue that counts most in the communal budget that have expressed both the highest frequencies of forest *economy* and forest *management* conflicts: Nancy sur Cluses, Vacheresse, and Rossinière. And it is also these Communes, which have indicated the highest *resource* value. By contrast, the Communes that depend less on communal forest revenues - Châtel and Leysin have also expressed less forest values (even when removing the *resource* value from the total forest values). We could say the same for the

Communes, which are involved in conservation related projects: they have both comparatively high frequencies of *environmental* values and of *conservation* conflicts.

The fact that residents *express* fewer local conflicts around *multiple land uses* and *forestry* in their Communes, like in Nancy sur Cluses, indicates that there are less intense and less varied *uses* of these forests in present time. Residents of this Commune commute to work in the valley, their Commune's forest are little used for recreation, furthermore there is little farming and no important conservation interest associated with their forest. When considering the places' history, we see however that this low interaction is not only due to economic changes, but also to past political and institutional conflicts between local users and regional or national administrations. Indeed, State-led policies and administrations have over the last century progressively disinvested Communes from the management of their forests. And some elderly still perceive the related loss of their customary rights to access and use resources from the communal forest in conflictive terms, as disfranchisement. Vollèges and Nancy sur Cluses, both have a rich history of forest related common property regimes (bourgeoisie, commoners, see Chapter VI). This local institutional history still shapes local perceptions of the forest, as we can see in the value analysis, for these Communes show high appreciations of the forest as *patrimony* (Figure 67). It is the value analysis, in particular of the patrimony values, which allows us to understand the historical perspective of changes in local interactions related with the communal forests.

Figure 67



Occupation based variations

The actor's main occupation is the most determinant variable conditioning the expression in conflicts:

- The **forest** sector is leading in the expression of conflicts related to (in decreasing order of importance) *forest economy*, *forest operation*, *urbanization* and *natural risks*
- The **agriculture** sector leads in the expression of conflicts about *agriculture* and *forest management* (and is in total the sector expressing most conflicts Table 7);
- Actors from the **tertiary** and **secondary** sectors have expressed the highest number of conflicts for *conservation* and *recreation*.

The greatest inter-occupational variations (between the forestry, agriculture and combined tertiary and secondary sectors) concern first the conflicts related to *forest economy*, second to *agriculture*, third to *forest management* and forth to *conservation*.

Considering the values, expressed according to the occupational groups,:

- The **forest** sector leads only in the expression of the *resource* value; in all other values, it comes after the tertiary sector. Compared with the agriculture sector, the forest workers have expressed some more interest in *recreation* values but barely more in *environment* - and even slightly less interests in the *protection* and *patrimony* values;
- The **agriculture** sector has expressed most values about the forest perceived as a *source of material for construction and energy*, within the *resource* category. For the *patrimony* category, it is the leading sector relatively to the forest perception as a *private ownership*.
- The **tertiary and secondary** sectors dominate in relation to the total forest value of *patrimony*, then *recreation*, and also – but to a lesser extent - for *environment* and *protection* values. Relatively to the *protection* value (against natural risk), we note that the difference between the sectors is minimal and probably not meaningful.

The greatest inter-occupational variations (difference between the highest and the lowest frequencies) concern first the *resource* values, then the *agriculture*, and third the *environment* related values (Figure 51).

Integrating the occupation-based conflicts and values analyses, we conclude that there is a divide between the diverse sectors in both the perceptions of forest related conflicts and values. The forest workers show substantially less concerns about *agriculture* conflicts than the farmers have expressed about forest issues (*operation*, *economy* and *management* conflicts). This is particularly the case for the issue of *forests invading pastures*, which is a *multiple land use* conflict (subcategory of *agriculture* conflict theme) that has been expressed quite constantly in both countries' samples. The high conflict frequency for farmers shows that they are still concerned about the forest – but more as owner of the resource and for subsistence needs (*fuel*, *feed*, *construction material*), than in terms of interest in the formal economy (*income* and *jobs*). For *income* and *jobs* farmers in the Alps, engaging in multiple occupations, tend nowadays to seek opportunities in part-time jobs related with tourism. Whereas in former days, farmers would seek extra income opportunities with forest related work, tourism related occupation is nowadays a more remunerative option. The institutional history of State-led forestry has marginalized the farming sector's participation in forestry, as we saw in particular in Nancy sur Cluses and Vollèges. The globalizing and concentrating timber market has furthermore pushed the local part-time and small-scale agro-sylvo-pastoral economy in the informal domain, as we saw in Vacheresse in particular. In the Alps the farming sector is no longer valued in relation to forestry, indeed *agriculture* in relation with the forest is mainly mentioned in terms of a conflict, not of a value. Forest workers are also more oriented towards recreation related interests than they consider agriculture interests. Indeed, forest workers' economy in the Alps too, relies more on tertiary or secondary sector activities for part time jobs and supplementary income raising opportunities, than it relies on agro-

pastoral occupation. The gap between the farming and the forestry sectors is also obvious as it is farmers, who expressed most forest *management* conflicts, considering the entire sample of interviews. Management issues are perceived as conflictive when the actors have an interest in some forest use(s) and feel their access to and control over the resource to be unsure or in jeopardy. The *forest management* conflict category is therefore a good indicator of power relations among the different actors interacting with a given forest. But the results show also that for the total six Communes, considering the three forest conflict categories (*operation*, *economy* and *management*), it is forest *management*, which has been expressed as least conflictive. This result may indicate that residents have to a large extent delegated forest management to the professionals of State administrations. It may also indicate that they find forest management relatively unproblematic – either because they are not really interested or because they are satisfied, or both. The fact that forest management conflicts are in Switzerland more expressed by the farming and also in some cases by the tourism sectors may indicate that they would wish that forest management is better responding to their demands. However, we cannot induce from this that they are actually willing to participate in forest management for ensuring that their demands are better taken into account of. It shows only that they have concerns that could potentially motivate their involvement. In the French sample, it is actors from the farming - and secondarily from - the forest sector, who have expressed more conflicts with forest *management*. And the forest *management* conflict frequency is in overall higher in the French area, than it is for the Swiss sample. A possible explanation for this result could be that while forest management planning at the forest management unit level is less regulated and subsidy dependent in France than it is in Switzerland, the French management style of the forest service is more centralized and more expertise-driven. This appears to generate more *communication* related conflicts between foresters and local actors, as show the results for the French Communes (Figure 44). In the Swiss sample, actors from the tertiary sector have expressed some more forest management conflicts than actors from the forestry sector. Text analysis shows that environmental concerns in an urban perspective makes actors perceive the forest as a natural space and makes them suspicious of logging and forest management leading to visible interventions (Chapter VII will discuss further these elements of result interpretation).

We saw that the occupation-based variations concerning the expression of *values* are quite different from the results about occupational differences in the expression of *conflicts*. Indeed, the farming and the forest sectors - while dominating in the expression of forest conflicts for the total sample area – are behind the tertiary and secondary sectors in the expression of forest values. The value analysis indicates therefore the usefulness to involve other sectors in forestry for an enhanced valuation of forests. The lay have expressed more multiple forest values – which foresters may take for granted but tend in the end to understate – at least in the position of communicating agents (which they are in the situation of an interview). We recon that the actors most directly dependent on the forest resource and who tend to be excluded from decision making in the management of that resource, express most conflicts on one hand and least values on the other. It shows the importance of listening to the expression of conflicts when primary stakeholders' concerns are to be recognized.

It is interesting to note that in Rossinière, where the forest value is the highest, all four occupational sectors have high and often approaching expressions of conflict, even on issues like *agriculture*, *recreation* and *urbanization*. While the tertiary/secondary sector is the one expressing most forest values in general, in the Commune where it dominates in economic and political terms, such as in the mass tourism oriented Communes of Leysin and Châtel, it expresses relatively few forest values (compared with these same sectors in the other Communes). In fact it is the power relations among the sectors, as reflected also in local governance structures, which is to a large extent determining local perceptions about the forest. And in this respect, it appears that tourism development - and the type of tourism developed - appears as particularly determinant concerning forest perceptions, in

the studied alpine region. We notice that tourism resorts relying on heavy infrastructure development tend to disvalue the forest, whereas the Communes depending more on soft tourism have a more pluri-occupational type of economy and integrated governance approach with local actors expressing more concerns about forest values and conflicts (Rossinière, Vollèges, Vacheresse).

We notice that the workers from the tertiary sector have still concerns about the forest economy, since they have expressed worries about the degrading timber market. Several interviewees said that, in the past (till the seventies), it was in part timber extracted from the communal forests, which provided the funds necessary to invest into the development of tourism (skiing infrastructures, etc.). This has been the case for the two most tourism-oriented Communes studied, Châtel and Leysin. Even though the tertiary sector has expressed some concerns about the degraded forest economy in these Communes, actors occupied with tourism in Leysin and Châtel have said that benefits generated from tourism could not or should not serve for investing in the communal forest. Indeed, the fact that the tertiary and secondary sectors are less (than the farmers and the forest workers) concerned about the *forest economy* or less valuing the forest as *resource* is a source of problem for forest workers in these Communes which have quite exclusively developed their revenues on tourism related activities. Both Communes, Leysin and Châtel, have marginalized their forest sector in local governance and the local economy and invest little in their communal forests. This result relating mass tourism development with the marginalization of communal forestry needs to be further tested in other areas. While it certainly shows a trend this result should not be readily generalized into a rule. Indeed, another Commune in Haute-Savoie called les Gets, that was part of our larger regional sampling area but was finally not selected because it has a lesser proportion of communally owned forests (but more private forests), has intensified its involvement and valuation of local forests by installing a communal wood heating facility and by developing a forest charter, that helps also obtaining subsidies for supporting the clearing of forests from pastures and some timber extraction and forest maintenance by improving access to remote woodlots.

Gender and age based variations

We saw earlier that women have expressed about two thirds fewer conflicts than did men and this in both countries' samples. The occupational factor explains to a considerable extent this relatively low number of conflicts expressed by women, since women work mostly in the tertiary and the secondary sectors (expressing in general fewer conflicts compared to the agriculture and to the forestry sectors). By comparing the results from the conflicts and the values' analyses across social categories of occupational groups, gender and age, we see that the actors who have generally expressed least conflicts are the ones expressing most forest values: the tertiary sector, the below forty years old and the women.

Based on this actor-based analysis, we cannot conclude that the more a person expresses conflicts, the more she values the matter causing according to him or her a conflict. However, when we place the actors in the contexts of their Communes, it becomes visible that the young and actors from the tertiary sector are stimulated to express more environmental values when there are issues raising also conservation conflicts.

The superior frequencies of *multiple land use* conflicts found for the Swiss sample – compared with the French sample - are mostly due to greater concerns related to *conservation*, *urbanization* and *recreation*. These concerns have been mostly expressed by the young and secondarily by women (Table 9, 10, 11). And in France too, the young and women tended to express relatively more *recreation* and *urbanization* related conflicts. It is remarkable that what differentiates both countries' results in forestry conflicts is the category of *forest management*. In France, the young have expressed substantially more *forest management* related conflicts than the above forty years

old. And the women of two French Communes expressed also more forest *management* conflict than did men (Nancy and Vacheresse, Table 8). In other words, even though women and the young have expressed fewer conflicts in total, it is their differentiated perceptions which to a large extent determine the variation of the categories of *conservation*, *urbanization*, *recreation* and forest *management*. It is these categories too that vary most between the Communes. The age and gender groups constitute too small samples and the variations between Communes along these groups are too large for generalizing the relevance of these findings, but the patterns found show that besides the occupational factor it is necessary taking into account age and gender differences, when estimating forest related conflicts and values and to place them in a place-based and historical context.

Women and the young are also the ones who mentioned most the leading core category in the values' analysis: the *patrimony* related values. The leading patrimonial subcategory value expressed by women has been the communal forest appreciated for its *social link* function (Figure 64). The young have also valued significantly more this function than did the elderly (Figure 57), so did the tertiary sector actors value it more than the primary sector actors, including the forest workers! (Figure 53). We could conclude from there that even though women could be considered as less "direct stakeholders" – because they value less the forest in terms of a *resource* (in particular in terms of income and jobs) – they have determinant insights that should be taken into account in order to obtain a full picture of key place-based variations in forest conflicts and forest values. Even for the category of *resource* we could highlight, that the interviewed women expressed about as many values as did the men in relation to the forest as a source of feed (game, fruit, pasture for livestock). Concerning the young, they have expressed in average more total *resource* values than the above forty years old – and in particular more values concerning the subcategories of *income and jobs*, and for the forest as a source of *material for construction and energy* (Figure 58). This is a result that shows that the young are not ready to abandon the potential of using their local forest as an economic resource too.

Even if gender and age influence less the results than does the sectoral divide when considering the entire sample of interviews across the six Communes, we notice that in some Communes the gender and age categories are more determining than in others. Women and the young have expressed more conflicts and values in the Communes that are more urbanized and / or which have had some conservation projects, mainly in Switzerland. Communes that have an intense tourism activity (Châtel and Leysin) tend also to have the young express substantially more forest values (Figure 56), even though the total of forest values in these Communes is quite low (indeed the older generations of these Communes expressed very few forest values). This indicates a change across generations in perceptions: the young see more the local forest for its environment and patrimonial values, as an integral part of their effort to enhance their place's attractiveness for tourists, and an opportunity for diversifying their economic potential also in other activities besides tourism. Interestingly, it is the actors who have least the notion that the communal forest belongs to the communal residents in particular, but rather feel that it is public and belongs to all, who have expressed a larger diversity of forest values: the young, the women and the tertiary sector. We need also to recall in this respect that forest values have been expressed in less place-based terms than forest conflicts and that it is therefore key for understanding and addressing local forest related conflicts to fully consider the actors who are in more close and continuous interaction with the local forests, often for livelihood related interests.

The quite large inter-communal variations in relation to gender and age based differences in perceptions of conflicts and values, indicate that it is important to consider the socio-economic situation of each Commune and, as we will see in the next chapter, the social actions taking place in these territories. We will see, for instance, that a locally organized collective process promoting the

creation of a new protected area in Rossinière has contributed in raising interests among the young and the women about the local territory, motivating them to express relatively detailed and numerous forest conflicts and values.

Conflicts and values generating social interactions

There are different types of conflicts according to Lewis Coser (1956): the *real* and the *pervverted* conflicts. Pervverted conflicts emerge when real conflicts are not addressed. There are **core** conflicts, which are constitutive of group identities and can be less easily opened to public deliberations and there are conflicts, which are more **peripheral** to identity related stakes. There are *endogenous* conflicts created by the groups in order to test their membership and reinforce group boundaries. And there are conflicts, which are exogenous - and challenge group boundaries.

So far we identified only the types of conflicts expressed in the interviews, and estimated their relative importance to the residents in the selected Communes. It is not obvious that the most mentioned conflicts are necessarily the *real* conflicts. For distinguishing the real and the core conflicts, we will wait to analyze social interactions and a selection of participation processes (Chapter VI). It is by confronting the results of the conflict analysis, with our analysis of participation processes that we will be able to crystallize propositions about which are the real and core conflicts and what is the social capacity for addressing them in participation processes at local levels (Chapter VII). Our assumption is that a conflict analysis contributes indicating why people participate or not, and why they participate in a certain way or another. In other words, the place and actor based analysis of conflicts helps distinguishing different types of participation. According to Coser, it is through conflicts that group identities and boundaries are shaped, and it is by handling conflicts that actors through social interaction produce and reproduce meanings and therefore also *values*. In the next chapter we will look at how a selection of participation processes identified in the Communes enact the conflicts and the values discussed in the present chapter.

Chapter VI.

Social agency concerning communal forests

A. Local social interactions shaping communal forestry

B. Who takes part, why, and how in collective agency processes

C. A typology of collective agency in relation with communal forests

A. Local interactions shaping communal forestry

The first section of this chapter provides some propositions for interpreting the results from the interviews regarding the social relations between the actors influencing local forest interactions at communal level. The analysis of these social relations is focused on the actors engaging the interaction (agents). We defined accordingly three main types of agents: (1) municipals; (2) State forest agents; (3) residents and local workers.

1. Municipals

1.1 Communal owners for whom the forest was long a resource essential to their livelihoods do hardly accept nowadays that it is an amenity representing a net cost. They are preventing the forest budget from becoming negative and limit forest investment accordingly.

1.2 In the Communes where the forest economy represents some revenue, municipals still try to have some control or influence over pricing and marketing the timber extracted from the communal forest. This is less the case in the Communes where tourism is important and the municipals responsible for the forest are occupied in the tertiary sector.

1.3 It seems to be the dual role of the municipality, as a collective owner and as a State administration that prevents it from encouraging preferential access to communal forest resources for residents: municipals tend not to actively encourage or make publicity for the continuation and possible revival of practices like affouage and communal dry timber sales.

1.4 With decreasing economic returns from the forest, the municipalities, alike the private forest owners, lose interest in managing their forests and wish to pass on this management responsibility, and even sometimes their property, to the forest service. Nonetheless, several municipals, even when working in the tertiary sector, claimed that communal land ownership is for the municipality a means to stay in control over the communal territory, and that communal forest ownership is an asset providing security for the future.

1.5 The French municipalities often have a distinct forest or wood commission, where a group of people, including municipals and non-elected residents considered for their competency, are responsible for matters pertaining to the communal forest. The wood commissions identified involve either forest workers or farmers but none integrates equally actors from both sectors. Members from these commissions mentioned difficult interactions between actors from the farming and those from the forestry sector.

1.6 The Swiss Communes have no forest commission and their communal forest governance rests generally on one elected municipal who often takes on other responsibilities such as related to the local school, to the environment and to urbanization. Concerning forestry, municipals tend to readily pass on the resolution of these conflicts to cantonal administrations and judiciary conflict resolution mechanisms.

1.7 In Valais, where it is not the Commune that owns the forest but other common property organizations, which are the *bourgeoisies*⁹³, the municipality is less inclined to invest in the forest. Because the capacity and resources of the *bourgeoisies* have declined in the Alpine regions with modernization, this situation can be an obstacle for the maintenance of the forest.

1.8 Tourism oriented Communes tend to delegate more their forest management responsibilities to State forest agencies – and to be less involved in forest management, than are Communes where the primary sector (forestry and farming) are economically more important. In tourism-oriented Communes, forest governance tends to be passed on to municipals from the tourism sector, this results for the Communes studied in less municipal involvement than for the Communes where the municipals in charge for the forest are farmers or forest workers.

1.9 Until the seventies, the communal forest revenues allowed the forested mountain Communes to invest in tourism and infrastructure development. However, nowadays, with the forest sector in difficulty, the tourism sector does no longer rely directly on forest revenues and does in return not consider investing part of tourism revenues in the communal forest. Some actors working with tourism say that it is barely possible for them to invest in the forest because their economic situation is hardly beneficiary and that they would rather need to invest in their own sector in order to maintain its activity.

1.10 In the tourism-oriented Communes, the tourism office works closely with local associations, including farmers' organizations and local forest services. The tourism sector uses the resources and services of the organized actors from the primary sector in general, and the forest sector in particular, for arranging footpaths, organizing festive events, landscaping the territory. In fact, mountain forestry is increasingly oriented at satisfying recreation and protection demands, which rise with tourism and leisure related activities.

1.11 In the Communes that have experienced great storm damage, municipals tend to become more aware about the multiple forest functions and are working with forest agencies in order to obtain subsidies and technical support for realizing costly and risky forest operations.

1.12 Several municipals initially claimed that communal forestry doesn't raise any issues and that the State forest service takes good care of it. However, they often finally acknowledge that the communal forest is matter of various conflicts between forest workers and actors valuing other land uses (agriculture, urbanization, conservation, prevention against natural risks) and that it is the municipalities, more than the forest service's agents, who manage such conflicts.

1.13 The municipalities are legally bound to sign the forest management plan but give little inputs and have actually little influence on its elaboration. Forest management plans are mostly technical documents prepared by State forest engineers, who are not directly involved at the local level. In two out of the three French Communes studied, the plans were not referred to by municipals, while for the third the mayor said he used it as "a working document".

⁹³

A bourgeoisie is a collectivity of owners of land, pastures, forests and often water rights as well as of some collective infrastructures and community buildings. These forms of common property regimes date from medieval times and several Swiss cantons have still bourgeoisies. Bourgeoisie rights were either bought or inherited and granted according to appliance to some code of conduct, therefore not all citizens were bourgeois. Whereas bourgeoisies were in the past influential in local policy and economy, they have lost political power with the consolidation of the State and have seen their economic influence eroded with the industrialization, tertiarization and globalization of economic exchanges.

1.14 The organized actors making their living from the tourism sector use the communal forest as an open access space, in or around which they foster more or less lucrative recreation activities. This perspective of the communal forest as an open space becomes also the one of the municipality in Communes which economy is mostly based on tourism. The municipalities have then to arrange some trade-off to this open access approach by restricting some recreational uses detrimental to forest functions and ultimately to the attractiveness of the Commune to visitors, as well as to the security and to the quality of life of residents.

1.15 Municipals tend to manage conflicts so that they do not become public issues, they prefer to use informal conflict mitigation means to approach the problems individually with the residents as they occur. Most of the time, once elected, municipals defend more representative democracy principles than direct democracy governance styles and do not involve residents in decision-making related to forest management .

1.16 There are no longer communal forestry employees as it was the case until ten or twenty years ago in most Communes. Alpine Communes tend to rely nowadays mostly on forestry services from the State and on subsidies to cover forest maintenance operations. However, municipals are not inclined to give precisions about the amounts they obtain. Some said that in exchange of obtaining subsidies they also have to relinquish decision-making power over their domain. In the Swiss alpine Communes most actively seeking and actually receiving subsidies, municipals say that without this financial support their Commune would not be able to take care of the protection function of the forests, nor to extract timber.

1.18 Municipalities engage occasionally by the job local farmers, retired people or part time forest workers for extracting small quantities of timber, in order to remove, for instance, trees attacked by the bark beetle. These forest operations are not profitable for professional logging entrepreneurs, who tend to refuse or overcharge such interventions. Farmers and other informal forest workers are vulnerable when they work in semi-legal conditions; some municipalities encourage part-time loggers to undertake training and use appropriate gear for improved safety.

1.19 Municipals tend to communicate little about the communal forest to residents and do limit deliberations to a small number of local actors who claim to know more and better about the forest. These actors are always men and usually older than fifty years. However, one mayor showing the annual forest budget book, which he keeps personally, said *“my intention is to make forest management transparent, readable for everyone”*. While he referred to past conflicts on disputed affouage rights which the municipality had learn to solve, the same mayor added that transparent forest management is a means for minimizing conflicts.

In conclusions, municipals tend not to foster the participation of residents but do promote the interests of the local actors who hold the power in the community. In most Communes, the influence of the primary sector declines in local power structures. The trend is to view the communal forest as a public open access resource, to delegate its management to State forest agents, and to obtain subsidies for covering forest maintenance work.

2. Forest agents

2. 1 With a recent trend towards decreasing forest subsidies, forest services in France and Switzerland are, besides forest planning and management tasks paid by the State, increasingly executing forestry operations for self-financing their service. Municipalities often hire forest services for realizing forest operations. Because at this operational level, forest services are supposed to be in competition with private forestry enterprises and the municipalities supposed to

open job offers to all bidders, the power relations between the Commune and forest agency changes at the operational level. While at the forest planning level the State forest agency is more in power, for the operational level it is the municipality in its owner role. However, this holds as long as there are competing forest enterprises available and that these are not pushed out from the market, being exposed to unfair market conditions with the entry of State forest operators.

2.2 The Forest Code (art. L 111-1) stipulates that forests belonging to Communes have to be under the remit of the *Régime forestier* which implementation is the exclusive responsibility of ONF. However, ONF does not manage the integrity of communal forests. Indeed, there are some 300 000 to 400 000 ha. of communally owned forests which are not under the remit of the forest code⁹⁴. According to the Forest Regime, the surface of classed forests needs to remain constant and when a Commune deforests part of its classified forest, it has to provide in exchange a surface of its non-classed land to the forest agency. Forest agencies sometimes also ask larger surfaces in compensation than the ones they have relinquished. They can, however, no longer justify this compensation by its original purpose – maintaining the total forest cover – since in alpine areas the forest cover is increasing at a fast rate through natural regeneration on abandoned pastures. Instead, State forestry services argue that with these supplementary compensations they obtain additional subsidies and that the forest under their service will be better managed than it is by the Commune.

2.3 In Switzerland, the forest agents also ask for compensations for deforested land but for all forests – whatsoever their ownership. Several residents mentioned, however, also in Switzerland, that these compensations' requirements were outdated in the present context of increasing forest cover, which many regret in terms of decreasing pastoral land areas and closing or darkening of landscapes.

2.4 Most State forest agents interviewed said that municipals are mostly getting involved for budgetary considerations. Some added that municipals have little time for discussing about other forestry matters. State forest agents often claim that it is up to their professional services to actually *manage* the communal forest. Whereas, several municipals said that they have to remind occasionally forest agents to consult them before taking marketing and operational initiatives.

2.5 Several local forest guards expressed regrets not to be more consulted by their hierarchical superiors in the process of elaborating forest management plans – since they have a better knowledge of local forests and actors. Some mentioned also that if the forest management plan is developed collaboratively with the owner, here the municipalities, it raises the owner's commitment to invest in the forest operations promoted by the plan.

2.6 Local forest agents play often the role of intermediaries between State led policy-makers and local actors. This endows them with an important communication mission for which they receive little organizational and educational support. Indeed, their position is not always comfortable in-between local interests and regional or national institutional structures and power relations. The forest administration has presently the double difficulty to increase environmental demands on one hand and to decrease financial support on the other.

2.7 The forest agents need to convince the forest owner(s) to invest at least financially in their forest. Some local foresters recognize that their work in forest communication and education becomes essential for sustaining their jobs. Most do focus communication activities on schools and

⁹⁴ This code tolerates in fact these exceptions for small forests that are not “susceptible of forest management, regular exploitation or reforestation” (art.2 L.111-1). Thierry du Peloux (03-12-2003) - La forêt Privée Française, www.forêtprivéeefrancaise.com

municipals, a few use media, like the local press and radio for reaching local households and a wider public. Local foresters said that their communication work rests upon their own voluntary initiative. Some local foresters reckoned to have few interactions with residents, when these have no explicit demands on local forest resources.

2.8 Some of the interviewed, mostly farmers, said that State foresters tend to neglect or contest local people's forestry know-how. State forest policies, education and training requirements, social insurances, as well as technological changes and the globalization of timber markets have all been mentioned in the interviews to induce the specialization of forestry work. Part time or seasonal forestry work – mostly done by farmers in winter – is consequently disappearing. Specialization of forestry contributes to raising labour costs and to making the Alpine forest economy less competitive.

2.9 Timber merchants have also lobbied State forest agents for preventing residents from having preferential access to their Commune's forest resources. Timber merchants together with State forest agencies therefore contributed to marginalizing the small-scale local forest economy, even if some forest owners recognized that small-scale logging is more adapted to the geographical and multiple uses functions of mountain forests.

2.10 State forest agencies organized along hierarchical structures and serving broader national interests tend to specialize forestry objectives for the mountain areas to protection functions first, and then to conservation and recreation functions. Instead, for alpine populations, the economic function of forests has been historically of primary interest. And the conflict analysis of chapter IV shows that the forest economy is nowadays still perceived as a matter of conflict.

Forest agencies need the support of forest owners in order to maintain some investment in forestry, even more now that subsidies tend to diminish. However, State-led forest institutions have de-legitimized local institutions that defined both local users' and owners' rights and their responsibilities in relation with communal forests. They have therefore contributed to disengaging local actors from communal forest management.

3. Residents and local workers

3.1 Residents tend to perceive and use the communal forest, alike other private and public forests, as a free access space. Few know the property boundaries of the communal forest – especially among the younger actors and those occupied in the tertiary sector. In Valais, residents do often not know that most local forest belongs to the bourgeoisie and often confound the bourgeoisie with the municipality.

3.2 In the selected French Communes, residents do not take part in the elaboration of the forest management plans pertaining to their Commune's forest and most of them ignore the existence of these plans. These plans have often not been readily accessible at the townhouse and this even when the Communes had a public summary version of the plan (in two out of three Communes). The same holds for forest management projects in the Swiss Communes.

3.3 Municipalities manage residents' rights in access to communal forest products based on the local history of customary uses, on residents' demands as well as on municipalities' and forest agencies' own interests. Some Communes maintain some customary rights to timber and fuelwood from communal forests. Several interviewees acknowledged that if residents reiterated their demands for customary uses fallen in oblivion for some time, like affouage, municipalities could

hardly refuse to satisfy them. Where customary rights survive, interviews don't indicate that residents associate them with management responsibilities.

3.4 In the selected Communes, sawmill entrepreneurs don't get involved in communal forest management, even when they buy a good part of their timber from their Commune's forests. One logger and sawmill owner in a French Commune said he preferred logging from private forests, because extraction in private forests is not controlled by the State forest agency.

3.5 Residents opinion on *who decides for the forest* varies. For some, forest management is not decided at local levels, but mostly by regional and national forest agencies, for others the owner still plays a determinant role. Some residents noted that they are not consulted in relation to forestry decisions, and this at the difference from decisions related to urbanization plans and projects.

3.6 Except for some residents and municipals working directly in forest related activities, few local actors said spontaneously that they wished having more influence on communal forest management. However, when a conflict becomes matter of a public issue (construction of a protection wall in private forests in Châtel or the construction of a train line in Leysin), concerned residents complain that their municipality does not allow enough public deliberation.

3.7 Local actors' perceptions about the actual state of the forest and its management vary according to their political position vis à vis the municipality in power, as well as according to their knowledge of the forest and its history. The politically less aligned and/or the more knowledgeable tend to be more critical.

3.8 The increasingly complex institutional structures influencing forest management – across all governance levels and sectors - confuse local actors: some say not to know to whom – which service or administration - they should address their complaints or demands. This governance confusion has been often expressed concerning urban forestry management (mostly about single trees, small woodlots and edges), which question private and municipal property rights and responsibilities.

3.9 Local actors appreciate being informed about the local forest, but they prefer obtaining such information through interpersonal and direct informal interactions with local forest managers and secondarily through the local media, than by pro-actively seeking the information (such as by arranging a meeting or making a phone call for asking their questions). Depending on the Commune and their personal relationships, residents will either refer to the forest service, to a municipal or another forest worker for obtaining responses to management questions and for demanding access to forest resources.

3.10 Interviews show that when residents perceive the local forester as communicative, they express appreciation and respect for him and his function, but much less so if they perceive their interactions with the person as minimal or difficult. Local actors appreciate when forest agents recognize and value local know-how, they are then also motivated for taking part and collaboratively organizing events valorising the local forest patrimony (i.e. next section).

3.11 Residents can hardly express in a public way, at the communal level, their personal disagreement regarding local projects. If they do expose their concerns, conflicts get easily engrained, dialogue breaks up and they are affected by social exclusion attitudes. This is why actors most concerned about local conflicts tend to use extra-communal means of influence and of conflict resolution (going to court) or/and try to influence local decisions in more underground and informal ways.

3.12 For the selected Swiss Communes, where there are relatively intense conservation and urbanization related conflicts (construction of a train through a mountain forest in one – and the possible constitution of a biosphere reserve in another), residents tend not to express explicitly the issue in relation to concerns for their communal forest but in relation to their living environment in more general terms.

Residents realize they have little influence on local forest management but do in general not demand for more participation. However, when a public issue arises, then the directly concerned actors complain that there is no space for public deliberation at the communal level, and they attempt at solving the problem by using extra-communal institutional relations or by organising local more or less informal means of influence and opposition.

B. Who takes part, why, and how in collective agency processes ?

In the first section of Chapter VI, we analysed mostly the communal social interaction system and the way it routinely works in respect with communal forestry. This second section focuses on organized collective agency processes that have some relation with communal forests.

The distinctive variables of this analysis rest on three domains of questions:

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents' strategies of action)?

Based on the interviews, twenty one collective agency processes have been identified across the six selected Communes. The three domains of questions presented above structure the analysis of each one of these processes as well as their comparison. The next section details this analysis in form of a matrix applied to six processes, one process per Commune.

- The municipal *wood commission* for Nancy sur Cluses (France)
- The *Association Foncière Pastorale* (farmland owners association) for Châtel (France)
- *Affouage* – organizing customary rights to communal fuelwood (common of estovers) for Vacheresse (France)
- *Four Banal* community oven for Vollèges (Switzerland)
- The *Label Nature* inter-communal association promoting a new protected area for Rossinière (Switzerland)
- The *Communal Strategic Plan* for Leysin (Switzerland)

A later section will present in a more synthetic form a comparative analysis of all 21 processes.

Nancy sur Cluses: Wood commission (Commission Bois)

The Wood commission is a municipal commission which main task is managing matters related with the communal forest

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents' strategies of action)?

Table 13: Wood commission

Questions	Descriptive analysis	Interpretative propositions
<i>Initiator</i>	The municipality	
<i>Actor in control</i>	The municipality is in control, and the mayor is president of the commission. The most considered forest expert is the former – now retired - forester of Nancy, who worked formerly for ONF, who knows the history of the forest and of the Commune, even though his family does not originate from the Commune.	The municipality is the initiator and controls the wood commissions.
<i>Actors Involved</i>	Three elected municipals and one resident included for his competency (former local forester).	One non-elected resident participates for his expertise — knowledge of the history of the Commune's forest and who is trusted by all local actors.
<i>Objectives</i>	The commission decides about the minimal prices at which ONF can put its communal timber on the market, about the maintenance of forest roads and the sale of salvage wood. It discusses about what to do with timber damaged by the bark beetle (10).	The municipal forest commission is involved in most forest management questions.

<p>Conflicts and values</p>	<p>The State forest service pressured the Commune to reduce its volume of exploited timber which caused financial difficulties for Nancy sur Cluses, timber revenues representing for long its main income.</p> <p><i>Before, since 1960, with the Eaux et Forêts administration, we logged between 1500 and 1600 m³, then with ONF we logged up to 3500 m³ each year, which in my opinion was an overexploitation. It was not only ONF but also the Commune [causing this over-exploitation], because it had difficulties obtaining subsidies and relied on timber extraction for getting by.(8)</i></p> <p><i>The annual allowable cut has been reduced after the storm 82-83 and in 1999 we had to freeze the logging plan. Are you helped by the State to compensate for this loss in revenue ? We received credit at 0% interest rates. Usually we had an annual allowable cut of 2400 m³ and we had to reduce it to 2000 m³ and it will probably still be reduced ... in order to allow regeneration after the storm. With 2000 m³ the forest revenue represents about 20-25% of the communal income. (2)</i></p> <p><i>The forester would need some more communal investment to pay for the preparing of a stocking site for logs and for the construction of forest roads. (10)</i></p> <p>The members of the forest commission watch closely how ONF handles their Commune's forests and keep their timber sales under control.</p> <p>Member from the commission express worries about how the young will take care of the local forest in the future. Indeed, communal forest decisions are in the hands of a small group of elder men. But interviews show that some of the young do not trust neither how the forest is taken care of:</p> <p><i>The forest of Nancy, I know it well! But the storm has good shoulders. One has cut too much and has poorly valorised the wood on the market. It is elderly persons who manage the Commune. It seems to me, they do not know very well how to count. (5)</i></p> <p>A young woman :</p> <p><i>Yes the locals had bought their forest from the Duke of Savoie... but today, the forest, nobody cares about it! How do you consider the state of the forest, its maintenance? In a bad state, poorly maintained, branches all over, one abandons it! (1)</i></p> <p>Another young woman</p> <p><i>What do you think of the state of the forest? It is well taken care of, we have a good municipal counsel and [forest guard] too (4)</i></p> <p><i>(Do you remember times when the perspective of ONF agents was different from the Commune's ?) The biggest fir of the Commune 17 m³ and 50 meters high. The school has made some celebrations there and ONF wanted to mark it (for logging). We just managed to save it ! (3)</i></p>	<p>The commission is most interested in forest revenues. The forest still brings in 20 to 25 % of the municipal income, which makes of Nancy sur Cluses the Commune where the forest plays the greatest economic role in our sample.</p> <p>For the forest guard the municipal investment needs to be increased (to construct stocking sites and a forest road) but it is economically not possible because of decreasing forest revenues</p> <p>According to municipals, the communal forest economy has deteriorated because of the storms and because of unfavourable market conditions. Other voices also recon that less timber can be extracted for allowing the forest to regenerate, since it has been over-exploited for some time, due to ONF and communal economic needs.</p> <p>This situation of overexploitation has indeed taken place in the seventies and eighties – when the market started deteriorating. This was also the case in the parallel Swiss Commune, which had a strong dependency on its forest revenues.</p> <p>There are varying perceptions among the young and the old about good forest management (more or less planted / or naturally regenerated forest, selective / or clear cut logging, more or less cleaned forests / dead timber allowed to decompose on forest soil etc.).</p> <p>The residents' opinions about forest management vary also according to their relative agreement with municipal politics.</p> <p>Residents, primary school pupils and teachers, and municipals collectively opposed ONF' project to log a very old and large tree.</p>
	<p>Several residents say to know about the forest commission and name people who are taking part in it. According to the</p>	<p>In the partnership with ONF, the Municipality retains a leading</p>

<i>Structures of the process</i>	<p>forest guard, residents tend to contact first the forest commission. Then it is the forest commission that transmits the information to the forester. However, a forest municipal says, there are few demands or inputs from residents.</p> <p>A young resident explaining his perception of the local forest and local forestry: <i>We do not work it, if we worked [in] it, we would know it better. There is a forest commission, but we do not speak much about it.</i>"(9)</p>	<p>position. It considers ONF as a forest work force and an adviser and itself as the main decision-maker.</p> <p>The municipals taking part in the forest commission are the first contacted by residents. However, there are few questions raised by the residents.</p>
<i>Strategies of the actors</i>	<p>A local sawmill worker says he cannot be part of the forest commission, because of equity reasons, for avoiding collusion with his personal interests. But he adds that he is in regular contact with the mayor for advising him on timber sales. (7)</p> <p>Does the commission consult the forest management plan? <i>Mostly the logging plan.</i> And are there residents asking sometimes to see the plan? <i>No, never.</i> (10)</p> <p><i>With x [forest guard], we notify him when there is something to do, or he notifies us if he notices it first. We decide about the dead timber sales and the maintenance of forest roads and ask then ONF to do the work.</i> (2)</p> <p><i>The discussions with the Commune concern mostly the annual budget, otherwise we follow the plan</i> (1)</p>	<p>The local sawmill does not get preferential access to the communal wood and only informally influences communal forestry decisions.</p> <p>The Commission invests into forestry projects only if it obtains "sufficient forest income".</p> <p>Both the members from the commission and the ONF forester observe the forest and consult each other to discuss what needs to be done.</p> <p>The ONF local agent sees mainly the interest of the Commune as budgetary, while he needs to bring the technical expertise.</p>

Châtel: Pastoral Landowners' Association (AFP - Association Foncière Pastorale)

The (AFP) Pastoral Landowners' Associations is a group of owners who have collective land management objectives, in particular to maintain or restore pastoral land uses. Through their association, landowners obtain increased economic, policy and technical support from the State.

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents' strategies of action)?

Table 14: Pastoral Landowners' Association

Questions	Descriptive analysis	Interpretative Proposition
<i>Initiator</i>	<p>The AFP of Châtel has been created at the initiative of the new mayor in 1995 – who is also the vice president of the Society of Alpine pastoral economy of Haute-Savoie (SEA). <i>"Then we have taken care of the organization ourselves, starting to invite all farmers. Many came to the meeting but they were afraid to engage and take responsibilities."</i> (13)</p>	<p>Here it is more the mayor who took the initiative of creating the Communal pastoral land association. However, the president in charge is a farmer and feels that the association is</p>

		run by farmers
<i>Actor in control</i>	<p><i>“All is managed at the townhouse by the secretary, who does it in her working hours (...) Otherwise, we could not do it”. (13)</i></p> <p>The votes are distributed by member and the hectares of land each member puts into the AFP. Therefore, the Commune, having the majority of land, holds the greatest voting power.</p>	<p>The Commune being the main land owner, controls considerably the decision-making and the organization of the AFP</p>
<i>Participants</i>	<p><i>“Out of the 32 farmers occupied in Châtel, 14 to 15 are members of the AFP. Some cannot be members because they are mostly renting pastures and some because they rent or are owners mostly of land outside the Commune.” (13)</i></p> <p><i>The Commune is also a member next to the about 35 private members. Commenting on the number of members coming to the General Assemblies: “We are often not many, sometimes only five, even those who have had projects do often not come”.(13)</i></p> <p>The AFP is in contact with the Society of ski lifts and the club of mountain biking for the restoration of ski slopes (so that they can still serve as pastures in the summer) but also for the creation of trails.</p>	<p>Participation by landowners is voluntary – some non-farmers are also involved. Some farmers of the Commune cannot take part because they do not own land on the Commune.</p> <p>ONF is not a partner of AFS, but tourism associations and the AFS are partners for cleaning pastures that serve to both livestock in the summer and skiing in the winter, they also collaborate in the creation of multiple use trails.</p>
<i>Objectives</i>	<p><i>[Our objective is to] maintain agricultural or pastoral uses of mountain territories.</i></p> <p>The land classed as forest has been removed from the properties of the AFP, there are only pastures, but these are however to a large extent recolonized by woods. The AFP concerns some 1000 ha., excluding most of the bottom of the valley where land can be built.</p> <p>One of the main objectives of an AFP is the clearing of pastures from invading bush and forest and to build pastoral and secondarily forestry roads. Other projects include the restoration of pastoral infrastructures, the management of manure and land fertilisation, sanitation and water management.</p> <p>The projects are subsidised to 50% (tax not included) with a ceiling fixed by the Conseil Général (Department Haute-Savoie) or by the Region (Rhône Alpes) at 50% of the costs of the project (tax included) with the possibility for the AFP to actually keep the total amount of the tax. (13)</p> <p><i>In fact the creation of new skiing slopes is a means to keep</i></p>	<p>The common objective is to maintain and possibly support the communal pastoral activity – and obtaining subsidies to realize these objectives covering about half the costs of the investment.</p> <p>The AFP is also a means for improving cooperation internally to the Commune – to enable farmers to negotiate with the powerful tourism actors – for managing the integration of recreation and farming land uses.</p>

	<i>the pastures. We are solidier and we know that we have to respect the mountain, this tall green and white lady, in order to be winners – here we say we do not inherit the land from our parents but that we borrow it from our children. (10)</i>	
<i>Conflicts and values</i>	<p><i>The regional organism subsidizing the AFP projects (Conseil Général) has asked that a plan of the pastures to be cleared is established over five years, complaining that it had to intervene every year in the Commune. Indeed, it does not want to come back several times in five years on the same pastures. The AFP met with the communal forest agent to discuss this project to develop a plan, but it is not yet done. At the end it is us who decide and it does not have to be ONF who realizes the work to be done for the project (it can be another enterprise). The forest is invading us, it is really an important problem for the AFP, but in many places it is already too late, we should have intervened 20 years ago, now some stems are 50 cm in diameter. The ceiling set by the Conseil Général for clearing the bush is 120 000 Francs by pasture. However, the wood being not worth anything, nobody wants to take it, we are even sometimes ready to give it to the logger but even then, he is often not interested". (13)</i></p> <p><i>We had meetings for the zones to deforest. ONF has an advising and entrepreneurial function. There was the question to reinforce this role of ONF, but we draw back, is it really worth the game - with the farmers? (12)</i></p> <p>For the spreading of the manure, the farmers, members of the AFP, should have helped but out of 21 only 8 came “<i>but those who did not come consider that if the Commune takes the manure, it is his and it should cope with it.</i>” (13)</p> <p>While the actual mayor applies more strictly the <u>Mountain Law</u> than his predecessor, some landowners are unhappy to be prevented from building on certain land and at less than 50 meters away from any farm. Among the unhappy are also some farmers who wish to keep their land constructible. Some landowners who are not farmers but rent their pastures to farmers have been in conflict with the AFP because they thought that farmers were at the origin of the tighter application of the Mountain Law. The president says that the situation came to a point where the association hesitated to take a lawyer for its defense.</p>	<p>The forest invading pastures is perceived as a main problem conflicting with pastoral activities. Through the AFP, farmers want to be master of the decision in how to clear pastures – and wish to minimize the involvement of ONF. ONF wanted first to work with the farmers – but draw back – apparently mostly for lack of mutual recognition. .</p> <p>The protection of farming land in front of urbanization pressures creates conflicts among landowners, even among farmers. The conflict regards landowners’ preferences for regulated versus autonomous decision-making power over land uses – and the impact of regulation on land prices. It is the political will of the current mayor to apply the Mountain law that contrasts with past practices and does not suit some landowners.</p> <p>The low interest of private landowners to participate in the association more actively is related with the predominant role of the municipality .</p>
	The framework of an AFP is regulated by the French Rural Code (L.135-1) as completed by the Mountain Law (1985,L. 85-30) but some of its regulations are adapted according to each Commune’s needs. For Châtel, the AFP has been founded in 1995. Its registered office is at the townhouse of Châtel.	The status of Pastoral Land Owners’ Association are to a large extent set by the law at national level – and the Communes administrate to a large extent these associations.

<p><i>Structures of the process</i></p>	<p>The constitution of an AFP requires a public consultation procedure – <i>“I do not remember the comments made” (president of the AFP)</i>. Documents showing changes in property within the AFP, the annual budget and the distribution of costs and benefits, are all at the disposal of the public at the townhouse.</p> <p>The members of the AFP do not pay for their membership, but the SEA (society of alpine pastoral economy) retains 5% of the investments in the projects in order to cover its costs. The AFP could also retain 2% <i>“but we chose not to do it, in order not to have too costly projects”</i>. The municipality gives a little contribution for the functioning costs of the AFP – as it does it for other communal associations.</p> <p>The AFP gives in rental some of its land to pastoral associations or other users. A farmer, member of the AFP and also municipal, said that the association receives subsidies from regional governments (Conseil Général or the Region of Rhône Alpes), as well as contributions from the Commune and other owners who are members of the AFP.</p> <p><i>Every member is invited to propose a project and then it is the Director of the AFP and a technician from the SEA (Société d'Economie Alpestre) who go from owner to owner in order to consider the viability of the projects and [the president]decides which to select. If the sum overpasses the amount of the grants we have to submit the decision to the AFP for choosing which projects will be differed – putting them in priority for the next project cycle. It is always delicate, but so far one could always agree. (13)</i></p> <p>The AFP has one or two General assemblies a year – they are not public, the members are invited and between the assemblies the organising committee (Syndicat) meets several times. The steering committee and the president of the AFP are elected by the General assembly.</p>	<p>It is also because the AFPs are almost exclusively aimed at obtaining subsidies that their structures are to a large extent defined by State institutions.</p> <p>The public consultation process required at the constitution of an AFP is perceived as a compulsory but futile administrative procedure, however it is necessary for giving legitimacy to the association.</p> <p>The conflicts arising concern mostly the decision on which projects will be subsidised, however the members have sufficient shared interests in the association to compromise and agree.</p>
<p><i>Strategies of the actors</i></p>	<p>The members do not have all a project to accomplish but being part of the AFP exempts them from the property tax.</p> <p><i>The AFP – its actual president – decides also on the access rights to the communal pastures, the dates when the herds can be brought and the farmers having access – “the farmers who need grass. They usually organize among themselves and it is usually always the same who go to the same places”. (9)</i></p> <p><i>The land users have no particular land management obligations, but one member said: “I have the idea that it would be good that each gives a day of work”. (13)</i></p>	<p>Most members participate not actively but remain members for the advantage of property tax exemption.</p> <p>These members are little engaged in deliberating and implementing land use management responsibilities. Leaders of the association say that a more active involvement of the members would help achieving the common objectives of the association.</p>

Vacheresse: Affouage (right to firewood, common of estovers)

Affouage is an access right for residents of a Commune to wood from the communal (or of another form of commonly owned forest property) either for free or at prices below the market.

Who is taking part (agents initiating, controlling and participating in the collective agency process) ?

Why (common objectives, values and conflicts addressed in the collective agency process) ?

How (social structures constraining and enabling the interaction and the agents' strategies of action) ?

Table 15 : Affouage

Question	Descriptive analysis	Interpretative Propositions
<i>Initiator</i>	In the past residents from Vacheresse recall that there was a system of sharing rights for fuelwood to be extracted from the communal forests. Residents were called by alphabetical order along a calendar to go on certain days logging in woodlots marked by the Communal forester. The total amount of extracted wood was then shared among all right holders.	The origin of the affouage right is not remembered by the interviewed residents – but recalled for at least three generations back.
<i>Actor in control</i>	<p>The current system of affouage is decided by deliberation of the municipality, and in particular its wood commission (municipal commission responsible for communal forestry). The marking and the selling of the wood is done by ONF. In the wood commission two members out of four are from ONF. The forest agent responsible for the forest district is one of the most active members. However, the mayor is also member of the wood commission and keeps personally the forest accounting book.</p> <p>According to a participant to the auction in November 2002, the role of ONF in organising affouage has increased substantially over the last decades. Now, it is ONF that proposes and divides the woodlots and marks the trees, whereas before it was the Commune and an entrepreneur it employed. During the auction, the forest guard and the municipal seconding the mayor act as partners.</p>	The municipality and ONF jointly manage the affouage, however the role of ONF has increased over the one of the municipality.
<i>Actors involved</i>	<p>The affouage right is given to all residents and announced on the Commune's public notice boards. One member per household can auction communally owned woodlots. About 30-40 households of Vacheresse practice their rights to "affouage":</p> <p><i>"(...) can bid only the persons who paid their housing taxes and lived without discontinuity in the</i></p>	Affouage right holders need to be full residents. Their number is diminishing, the young and the new residents tend to be less involved. It is mostly land and forest owners who take part, including farmers.

⁹⁵ In Vacheresse, traditionally, the affouage auctions take place the Sunday before the 11th of November (date commemorated for the end of World War I).

	<p><i>Commune since the 1st January. Can draw lots only the beneficiary or his spouse – or failing that – the children after 18 who live in the household, in the case of a major obstacle – a written proxy authorization is compulsory”</i> (written statement signed by the Commune).</p> <p>All residents who were present at the affouage auction on Sunday afternoon of the 10th of November⁹⁵ are men. Two thirds of them are over 50 years old, the youngest being close to 35-40 years. A right-holder comments: <i>“The young do no longer come, and there are few new residents.”</i> (10)</p> <p>About one of four participants in the affouage auction is a farmer (part or full time) and most of them are also private forest owners.</p>	<p>Affouage right holders are considered as primary users but less as co-managers of the communal resources.</p>
<i>Objectives</i>	<p>Each home can purchase an approximate amount of 10 m³ of firewood every year in form of standing beech.</p>	<p>The right to affouage provides residents with fuelwood below market prices.</p> <p>The responsibilities of residents who buy and extract their affouage timber is to log in ways that will not damage the forest roads and nearby properties.</p>
<i>Conflicts and values</i>	<p>Interviewees recall that there were “stories” (conflicts) about who would do the work when and where – some trying to get by doing a minimum. After community conflicts in the sixties, the municipality has readapted the system to changing socio-economic conditions (mostly due to the increasing number of people commuting to industry and urban centres and less capable to work on the land).</p> <p><i>“The affouages (are) something phenomenal, which needed to be mastered! So in order to avoid endless conflicts we needed to develop a rule”</i>(1)</p> <p><i>“In former times they sold up to 500 m³. The 200 m³ this year is very little. Before the bidders were so eager to buy that we had to calm them down, it was too much for the forest.”</i>(8)</p>	<p>Conflicts were about defining equitable access to the forest resource and avoiding free-riding. The conflict was “mastered” by the municipal authority – also in order to limit the demand and prevent over-exploiting the communal forest. These conflicts are no longer actual, the forest resource being plenty and the demand small. However, the affouage practice maintains its rules. Always the same residents take part, probably for a mix of economic and patrimonial interests.</p>
<i>Structures of the process</i>	<p>There is one affouage auction organized each year in November. The municipality and ONF define together the setting of the woodlots and the amount of wood given in affouage. They fix in advance a minimum price for the standing woodlots of each about 10 m³, below which the wood cannot be sold (but keep this price secret). The affouage auction (date and place) is then announced on</p>	<p>The presence of ONF in the local governance structure is important. However, the Commune, in the person of the mayor himself, keeps control over the communal forest budget and through the wood</p>

	<p>public boards about a month in advance. The interested residents go to the townhouse until a fixed date in order to register their names, marking their willingness to take part and bid woodlots. They obtain a map of woodlots in order to decide in advance which woodlot(s) they would like to bid for and at what price. While observing the auction, it was noticeable that all participants knew the routine and division of roles. The participants were sitting at tables disposed along a U and turned towards the decision-makers composed of three members of the municipality and two from ONF. These recall the procedure of the auction and how the wood can be extracted, including precautions regarding stocking, hauling - for not damaging the forest roads – and safety. The ONF forest guard announces one by one each auctioned woodlot and each interested participant writes down his offer on a piece of paper with his name. The papers are gathered in a hat and the offers are then read out loud, the best bidder obtains finally the lot.</p>	<p>commission over communal forestry.</p> <p>Affouage rights were reaffirmed after the French Revolution in 1802, are inscribed in the French Constitution., in the actual Code Forestier L.145-1 to 4 and R. 145-3 and in the general Code of territorial collectivities L. 2241-7. Accordingly, the selling of the product of affouage by the right holder is not illegal. Therefore, in Vacheresse, it is the municipality's own decision not to allow the selling by residents of wood extracted through affouage. Indeed, each Commune applies affouage rights according to quite different procedures. The system of auction is for instance particular to Vacheresse, it has been adapted over time by the municipality and local ONF agents. Users' capacity to influence the rules seems relatively small.</p>
<p><i>Strategies of the actors</i></p>	<p>The municipal income from affouage contributes to cover the costs of communal forest maintenance (10% of communal forest revenues are due to ONF) and to pay forest property and income taxes. The communal income at the end of the auction in 2002 was 2277 Euros, which is in the mayor's words <i>"a non-negligible revenue for the Commune"</i>.</p> <p>For ONF – according to the forest management plan of Vacheresse, <i>"it is necessary to continue this activity [affouage] in order to maintain spruce"</i>. Indeed the forest guard confirmed that the choice of woodlots and the marking of the beech were done in order to favour the regeneration of spruce in the under-story. For the local people, affouage is still of importance for their own uses. Even though the re-selling of affouage wood by the residents who logged it in the first place is no longer allowed by the municipality, some is sold informally. Most affouage users are also forest owners and do sell firewood from their own forests. Affouage still constitutes an opportunity of earning an extra income.</p> <p>According to an ONF forester: <i>This type of auctioning is very unusual (...). In fact, one single price should be</i></p>	<p>All parties, the municipalities, the forest agency and the residents find an interest in the affouage system. However, the prices of the woodlots are relatively high, in part because of the auctioning method. But residents do not contest this method, nor the prohibition for them to resell affouage wood.</p> <p>Affouage can be continued in Vacheresse because there is interest, know-how and social capacity which enables residents to log and process timber.</p> <p>The auctioning session did not provide any space for deliberation to question and redefine the rules of affouage. Participants and organizers went after the auction to the</p>

<p><i>announced and the woodlots should be drawn by chance. But then there are always those who are unhappy because they draw the inaccessible lots, while paying the same price than those who got the more accessible ones.”</i> (8)</p> <p>To the question of why forest owners are still interested in having affouage wood, one participant replied – with a smile: <i>“Because, our own forest, we keep it in reserve, in case of need.”</i>⁹⁶.</p> <p>The bidders choose to bid more or less on certain woodlots according to the accessibility of the lot, their logging and hauling abilities, their gear and their capacity to work in teams (of two or three for one tractor).</p>	<p>local café and talked informally about management issues,, such as the difficulty to prevent the regeneration of trees on pastures.</p> <p>The relatively expensive practice of affouage along the system applied in Vacheresse responds to different interests:</p> <ul style="list-style-type: none"> - To limit resident’s pressure on communal wood (1,8); - To bring a substantial income to the Commune (1): - To accommodate timber merchants who pretend that preferential access to communal timber for residents distorts the local market (8).
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Vollèges: Four Banal (common bread oven)

Four Banal is an association of members who commonly own, restore and run a bread oven and who use their affouage rights to firewood from the forest belonging to the bourgeoisie of Vollèges (Vallais).

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents’ strategies of action)?

Table 16: Four Banal

Questions	Descriptive analysis	Interpretative Propositions
<i>Initiator</i>	Consituted in 1991 the association was initiated by a group of friends residing in Vollèges or in the region.	A group of mostly local friends
<i>Actor in control</i>	The members of the association and in its directing committee decide on the activities of Four Banal.	Self-directed by the members

Actors involved	<p>Among the 114 members, most are residents and there are the young who come back to live in the region after some absence for work or studies. Ages vary from 17 to 90 years old and there are also members who use the oven without being members and who do not live in Vollèges.</p> <p><i>“Since the last five to six years, it is also the young who get installed in the Commune who become members, it is a means not to loose ones roots. It is a society which is gorgeous because all age groups meet and there are wonderful contacts”. (10)</i></p> <p>There are only four women members in their own name and only one woman is part of the directing committee. However, some more women come to make the bread and participate in the festive events, but men remain the large majority, also to bake the bread: <i>“We are machos”</i> confesses a member.</p> <p>Only some members of the association take part in collecting the affouage wood which serves as fuel to the common bread oven:</p> <p><i>“We call this corvée des bois”⁹⁷... We do this together in the autumn. Usually eight to ten people come, the five of the committee and some others. We were more or less the same these two last years. (...) You need to push. It is always the same who come.” (10)</i></p>	<p>Women are not members in their own name, because of an integrated patrilinear ownership system. It is also more men than women who come for backing.</p> <p>Few members are taking part in the collection of affouage fuelwood. From pictures, we can see that several women took part.</p>
Objectives	<p>The association bought, restored and since 1993 regularly uses a community bread oven. The oven runs with the fuelwood from affouage (about 4 m³ a year).</p> <p>The association bakes every year some 1000 breads, using the oven about 12 times a year, often on Sundays and at festive times (Easter, etc.)</p> <p>The members claim that their main objective is building social contacts across generations, allowing also newcomers or locals who left the Commune for some time to socially integrate. Four Banal creates opportunities for convivial interactions by organizing community events:</p> <p><i>“(...) its [the association’s] objective is the animation of the village.” (9)</i></p>	<p>Four Banal includes younger people in their 30s, who had to leave for professional or educational reasons and have come back to install with their families. It is a way for the people, who mostly work in nearby cities to socially (re)integrate in the place where they live and (re)connect with their roots.</p> <p>Four Banal is a social network animating local social relations across generations and socio-political groups. It is a place to produce and reproduce common values.</p>
Conflicts	Four Banal has (re)produces know-how across generations	Participants interviewed

⁹⁷ Wood chores, these chores were traditionally performed collectively, for cleaning forests and pastures, while gathering fuelwood.

<i>and values</i>	<p>– through a shared practice (making bread, collecting fuelwood, organising social events). Children and classes come also to use the Four Banal.</p> <p><i>“I have always loved to make bread, cakes, cookies (...). It is also a patrimony which comes from where I lived before, we had a mill. And here it allows me to meet people.” (10)</i></p>	<p>expressed no conflicts but asserted that their association created opportunities for social relations. Collectively restoring the bread oven and making bread is a means for social integration and identity.</p>
<i>Structures of the process</i>	<p>According to the members of the steering committee, the association is independent from the municipality - or the bourgeoisie. It does not align with any particular political, religious, economic and kinship group. The president of the Commune is also member of the association.</p> <p><i>“We have a general assembly during which the committee and the president is elected, usually some 20 people come, then we have a little dinner, it is all in conviviality. But as president - it makes sense - I would like to see more people come.” (9)</i></p> <p>Initiators of the Four Banal have been inspired by other associations restoring bread ovens across the canton of Valais. Four Banal, besides its membership shares (500 Swiss Francs), collects money by renting the oven and meeting house, by selling bread and by organising festive events (selling drinks, etc). It also got federal credit under a federal programme, which is to help investment in mountain regions (LIM 74, 97).</p> <p>A management committee of five persons meets about once a month. Those who become members have to pay their share and give a day of voluntary work for collecting each Fall the fuelwood, before sharing a common raclette dinner. Four Banal uses every year 4 m³ of affouage timber, collected from the forest of Vollèges, a forest belonging to the bourgeoisie. The right of affouage per household is 2 m³ per year and the price is about half what it costs on the market. The timber is not logged by the right holder but by the forest service, whom prepares the poles, piles them up on forest roads, marking them at the name of the registered right holders, who come to pick up their wood. Registration is done at the townhouse, with the secretary of the Commune.</p>	<p>Four Banal is a modern association functioning like a cooperative of owners and users of the restored bread oven and its house, its structure is inspired by traditional institutions of common property regimes (bourgeoisies, consortages, etc.) However, Four Banal membership is not limited to local people.</p> <p>Four Banal does not produce bread for collectively organizing subsistence production, but more to cultivate quality of life, preventing the place from becoming an anonymous sub-urban «dormitory ».</p> <p>It is the Commune, which administrates registration for affouage and the forest service who prepares the poles.</p>
<i>Strategies of the actors</i>	<p>Four Banal has become an important local animator, it organizes every two years the village fair, mobilising all other local associations. About 4000 people (from outside the Commune too) come to this fair.</p> <p><i>“During the village fair, all new members are enthroned. We wear red capes, which we have recuperated from a TV broadcaster, a beret and we carry a wooden pale. The new ones are then sprayed with flour, we laugh well.” (9)</i></p>	<p>Four Banal has become within a few years a key local agent, it has the social capacity to network with other local associations for organizing a big village fair, which wasn't celebrated before Four Banal was instituted.</p>

		The ceremony to integrate new members is not traditional but invented – however it has become a popular ritual in the village fair.
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Rossinière: *Label Nature*

The Group “Label Nature” is an inter-communal committee assessing the feasibility of creating a protected area – possibly a Biosphere Reserve and / or a natural regional park - over the territory of three Communes, including Rossinière

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents’ strategies of action)?

Table 17: Label Nature

Questions	Descriptive analysis	Interpretative Propositions
<i>Initiator</i>	<p>Regional actors organized around the tourism offices and regional development agents (ADPE) of the Region Pays d’Enhaut have initiated the project of constituting a Biosphere Reserve (BR).</p> <p>The tourism office started the project on the basis of a survey conducted in 1999 amongst visitors of the region, which results showed that the Region was mostly appreciated for its quality of life and environment.</p> <p>The initiative also built on an initiative launched by the national ENGO – then called Pro-Natura – which promoted a national contest to motivate regional actors to elaborate projects for the creation of a new national park in Switzerland.</p> <p>Rather than relying on external funding to pay for the preliminary feasibility assessment of a BR, the initiators motivated the municipalities of the three concerned Communes (Rossinière, Rougemont, Château d’Oex) to engage and invest themselves in the project. However, when a preliminary proposal was presented in 2001 to the municipals of the three Communes to decide whether they wanted to finance a full feasibility assessment, a negative vote by the municipals of Rougemont blocked the project.</p>	<p>According to the interviewed there are various interpretations of who is at the origins of the BR project:</p> <ul style="list-style-type: none"> - A regional development agency (ADPE) - The regional office of tourism (Château d’Oex) - An environmental organization (Pro-Natura)
<i>Actors in control</i>	The decision-making power remains at the communal level, all three Communes’ municipalities had to obtain a	The decision-making power remains at the

	<p>majority of votes among their municipals in order to launch the feasibility study on the basis of their collaborative financing.</p> <p>The conception of the project is mostly done by the ADPE (Association de Développement du Pays d'Enhaut)</p>	<p>communal level, even if it is regional actors invested in tourism who promote the initiative.</p>
<i>Actors involved</i>	<p>The committee is constituted of voluntarily and personally engaged representatives from the concerned municipalities, from the regions' offices of tourism and from the regional development agency ADPE.</p> <p>ADPE is an inter-communal regional organisation, which has been instituted on the basis of two federal and cantonal economic and legal opportunities: the LIM credit⁹⁸ and the new LAT land use planning law (Loi d'Aménagement du Territoire). The main objective of ADPE is to constitute a forum for developing projects aimed at enhancing the region's quality of life – integrating economic development and environmental objectives - by involving actors from the private, public and civil sectors and taking advantage of structural opportunities at regional, national and international levels.</p>	<p>The committee includes agents from regional development and tourism agencies, as well as some municipals from the three Communes, but no representative from an environmental association.</p>
<i>Objectives</i>	<p>The main objective of the Label Nature project are:</p> <ul style="list-style-type: none"> - Obtain State subsidies for the maintenance of pastures and the forest, for protecting fauna and flora; - Give an image for valorising economically regional products and services (including tourism, agriculture, forestry); - Strengthen the regional identity and autonomy (define from the bottom up environmental policy, related criteria and territorial definitions); - Provide legitimacy to local and regional actors and institutions with a label that is internationally and nationally recognized. <p>The main idea is that the project would help valorise economically what the Region has already: attractive landscapes; a rich biodiversity; a notorious architectural patrimony and this without creating substantial additional restrictions on existing activities.</p> <p><i>“We have the idea that this remote country (ours) is a jewel – not the bush – but a cocoon (...) We have the will to stimulate another look at our Pays d'Enhaut. We wanted to be the second Biosphere Reserve – after Entlebuch⁹⁹”(8).</i></p>	<p>A project for seeking economic gains, by increasing the notoriety of the region to potential visitors, and by obtaining subsidies to protect and value a humanised nature.</p> <p>Also a project for improving the legitimacy of local institutions so that they can stay in control of the development of their region.</p> <p>A project for valorising a territory – enhancing its economic capacity and the identity of the local people.</p>

⁹⁸ LIM stands for « Loi sur l'aide aux investissements dans les régions de montagne » (74,97). It concerns 54 mountain regions of Switzerland – benefiting from an average annual credit of 40 million Swiss francs.

⁹⁹ A new Swiss Biosphere Reserve – around the Aletsch glacier

<p>Conflicts and values</p>	<p>The project awoke mistrust in State-led conservation policies:</p> <p><i>“The RB Project was good, but in the Pays d’Enhaut it is not easy to fight against some established ideas. Also, at the Lécherette, farmers had received subsidies in order not to use some wetlands. They thought it would be for a while, when it got passed without primary notice in a definitive interdiction. (7)</i></p> <p><i>“The criteria we had at that time existed only in German, (...) they were written rigidly (...). Furthermore, the criteria of the Confederation showed that there were constraints, therefore, the discourse of the promoters of BR could awaken mistrust: they [the local people] have taken the criteria literally, while we [the promoters] said: ‘up to us to interpret them!’ The Confederation develops rules and criteria in the Swiss-German style. The Federal Office of the Environment, Forest and Landscape has a lawyer approach, always theoretical, it has got quite extremist rulers, which has not helped our project.” (8)</i></p> <p>The project aimed at valorising humanized nature more than wilderness:</p> <p><i>“This biodiversity depends also on traditional and humanised landscapes – the objective is not to produce large forests for the lynx and the wolf but for instance to hay [the pastures] on top of these cliffs. And the lynx? The debate has been ideological, but I cannot quite say why. Because it touches their patrimony – it is an identity conflict – other ways to look at the world”. (4)</i></p> <p>Discussing the pros and cons of labels, local people are torn between the competitive advantage it may give to their territory and its economy and the loss of autonomy it represents to abide to criteria set by actors from outside that territory.</p> <p><i>“There are many people who come and explain us what we know already since long...The project may not entail more constraints for the farmers but more control and paper work and there is uncertainty about its effective impacts. Farmers don’t really trust [those who say] that there are no additional constraints.” (5)</i></p> <p><i>“But we must be careful not to submit ourselves to too many rules and take everything by the word. I do not say that we should hide, but those who make labels can also manipulate. And it becomes uniformizing... Nature is there, whether there is a label or not. If they need UNESCO to make people come... People are not so stupid, the game of labels doesn’t make such a difference, it will maybe attract them in the first place, but if they return it is for what they have found here - in real.” (10)</i></p>	<ul style="list-style-type: none"> - Conflicts with environmental organizations around hunting, farming, tourism development and environmental (wetland) protection issues - The State is perceived as authoritative and unreliable in its conservation policies - The hunters’ and farmers mistrust the State after the reintroduction of the lynx - The fear associated with creating a protected area is to see one’s territory becoming a zoo (5) <p>A lack of transparency in the initiation phase and in the actual influence of environmental organizations in relation with State agencies at cantonal and federal level spewed animosity among local people against the project.</p> <p>In reference to the globally applied FSC (Forest Stewardship Council) certification scheme, this forest worker and municipal perceives</p>
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	<p>“One talks a lot about certification, labels, etc, which are things of UNESCO or worldwide, and one cannot compare a territory with forest like in Switzerland, with Brazil. And we have all our laws, we should do still better... it becomes extremely difficult. At the end, we have a lot of difficulty with that and a lot of fear, because on one side we feel that we need to take advantage, it is also the future these labels, these modes of valorization, and then we are also afraid that we cannot do anything anymore at home.”⁽³⁾</p>	<p>both an economic opportunity for enhancing the visibility of the region and its forest products and the risk of a loss of autonomy and identity.</p>
Structures of the process	<ul style="list-style-type: none"> - A directing committee was constituted to elaborate a project proposal. It's secretariat was at the ADPE's offices. - The committee organized meetings with local users (hunters, farmers and tourism related enterprises) in the idea to develop corporation charters. - The committee held two public meetings (in Rougemont and in Château-d'Oex). - It developed a preliminary feasibility study for a BR. - It published and distributed information - It developed finally a motion asking the municipals of the three Communes of Pays d'Enhaut to vote about their support for developing a full feasibility study in view of obtaining the BR label. - The project won the majority of municipals' votes in Rossinière and Château d'Oex but not in Rougemont (refused with a small majority – August 2001), the BR feasibility study could therefore not be launched. - The two Communes that voted in favour of the project in 2001, among which Rossinière, voted a second time in June 2002 to use the credit initially proposed for the BR feasibility study, for studying now the feasibility of developing a Natural Regional Park. <p>The project was then temporarily stopped because the Confederation was in the process of rewriting its protected areas legislation, including the definition of the status of natural regional parks. The new federal law and the budget line of 10 million Swiss Francs meant to finance the creation of new parks were frozen in February 2004.</p>	<p>Regional actors have no direct democratic legitimacy. It is the municipalities at communal levels which remain the main decision-makers. Even if there has been at regional level a majority of municipals voting in favour of launching the feasibility study for a BR label, without a majority gained in each Commune the project could not proceed.¹⁰⁰</p> <p>The uncertainty at the Confederation (national level) in matters of protected areas legislation and financial capacities disengaged local actors.</p>
Strategies of the actors	<p><i>“At the beginning, it didn't suit me, this concept «Biosphere Reserve ».... Then, I realized that we had already all in place, all it needed was to define it and draw it on a map. Maybe some measures in the buffer zone...” (8)</i></p> <p>There was a hanging lawsuit against Rougemont concerning a ski-lift constructed in a protected area. Shortly before the Commune had to vote about the BR proposal, a rumour saying that the cantonal administration</p>	<p>The promoters of the project minimize the constraints associated with the status of protected areas and underline the economic benefits.</p> <p>The ADPE, as a regional development actor, sees</p>

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At regional level – including the three Communes of Rougemont, Château d'Oex and Rossinière, a total of 74 municipals voted in favour, 28 against and 10 refrained from voting.

	<p>would abrogate the case if the Commune accepted the BR project was perceived by local actors as blackmail. This determined some municipals to oppose the project.</p> <p>The municipals and residents of Rossinière regret this withdrawal (negative vote) of Rougemont. This later Commune is also the richest of the Pays d'Enhaut, and several interviewees from Rossinière interpreted this withdrawal as a lack of solidarity with their Commune. Indeed, Rossinière being at a lower altitude could not develop winter tourism and the BR was perceived as an economic opportunity for developing summer and nature tourism:</p> <p><i>"The municipals, we were convinced, because it seemed to us that we could gain for the local economy... Because, nevertheless, we are always caught between these subsidies and the canton with its big (forest) projects and all. I mean, one has to be on the right side of the fence, otherwise we do not obtain anything and if we do not obtain anything we are lost."</i> (3)</p> <p>The municipals interviewed in Rossinière expressed their hope in seeing Rougemont come back into the project, so that it includes the entire region of Pays d'Enhaut.</p> <p>The ADPE (Association du Développement du Pays d'Enhaut) tries to strengthen its project through an analysis of consensus values in the region – the main one being that the region's economic life and quality of life has to be maintained and improved (combating its tendency towards demographic and economic decline). ADPE develops concepts that could be associated with these core values: the <i>landscape</i> (paysage) concept is one of them. ADPE agents hope that such concept <i>"can be ruralized or re-appropriated by farmers"</i> (4).</p> <p>The regional actors arguing for the BR project integrate environmental and economic interests and attempt at easing institutional relations between the local, regional, national and international levels. ADPE is a key player in this matter and gained experience and regional credibility by successfully promoting the labelling of local cheese and other farming products (Appellation d'Origine Contrôlée). It hopes to build on this success by associating the BR project or the project of creating a natural regional park with such economically proactive and voluntary labelling concepts rather than with the more restrictive conservation approach associated with the creation of protected areas, in general. The ADPE involved the Communes as main decision-makers and financiers of the BR project precisely for avoiding the project to be associated with a top down conservation initiative.</p> <p>The BR project says a professional from the ADPE is:</p> <p><i>"(...) an intelligent response of rural and periphery regions in front of globalisation and centralisation (...) Our capital is Nature (...) for the moment little</i></p>	<p>its role and legitimacy reinforced with the RB project. It plays the role of a mediator between the various institutional levels.</p> <p>As an agency of development it situates its role as one of redressing inequitable social structures between the centre and the periphery.</p> <p>The BR project corresponds to a strategy for maximizing economic opportunities, among which access to subsidies. The promoters of the project (ADPE) encourage local actors to define themselves the projects they seek to obtain some support for. This support is justified - say agents from the ADPE - to the extent the Communes propose environmental services which benefit the public interest also beyond their territories.</p> <p>The des-involvement of environmental organizations at the local level shows the importance of the conflict between conservation policies promoted at federal and cantonal levels on one side and local development objectives on the other. Related disputes have been the main reason why one of the three Communes of the BR project withdrew its support.</p> <p>The ADPE attempts at balancing contradictory local interests by favouring on one hand a</p>
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	<p><i>exploited by tourism. We have created a group « Label Nature » where we discuss about the aspects linked to marketing, the landscape and nature reserves. We should not let this capital go in the hands of the Confederation and its objectives of nature protection”.</i></p> <p>(4)</p>	<p>regional definition and management of the labels (in order not to frustrate the local concerns for autonomy and identity), while leaving on the other hand the task of control and accreditation to the State (in order to guarantee the label's legitimacy, visibility and State support).</p>
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Leysin: The Communal Strategic Plan (Plan Stratégique)

The communal Strategic plan is a participatory communal planning procedure.

Who is taking part (agents initiating, controlling and participating in the collective agency process)?

Why (common objectives, values and conflicts addressed in the collective agency process)? And

How (social structures constraining and enabling the interaction and the agents' strategies of action)?

Table 18: Communal Strategic Plan

Questions	Descriptive analysis	Interpretative Propositions
<i>Initiator</i>	The municipality has launched a credit line in 1997 to conduct a participatory communal Strategic plan in order to orient the elaboration of a communal Directing plan (Plan directeur communal - PDC).	The municipality initiates and pays for the participation process.
<i>Actor in control</i>	The canton of Vaud requires the development of PDC for Communes over 1000 residents and sets minimal standards for making these procedures participatory. The final communal plan is then assessed and approved by the Canton. The municipality of Leysin has engaged a private consultant for organising residents' participation in a prior communal Strategic plan, which is meant to define general objectives upon which the PDC will be based.	Even though the Canton gives a mandate to the Commune to prepare a PDC in a participatory way, the municipality decides how to organise participation and how to integrate its results.
<i>Actors involved</i>	For developing the Commune's Strategic plan, about 70 people from Leysin have participated in 12-13 groups working over two years. “Participation in the groups was open (2), not exclusively limited to full time residents.”	Participation was open: a large number of actors engaged and invested considerable time in the working groups.
<i>Objectives</i>	Through the Strategic Plan, the municipality defines a project with the local population and a frame for negotiating and facilitating its implementation.	Participation is mostly oriented at facilitating the expression of wishes and developing shared visions

	<p>The Strategic plan is established on the basis of three elements</p> <ul style="list-style-type: none"> - The wishes and propositions of the population; - A complete analysis of the territory and - An analysis of the existing instruments for the management of this territory (says the plan). 	for the future – considering present conditions of the territory and existing institutions.
<i>Conflicts and values</i>	<p>A final statement of the Strategic plan says that the objective is: <i>“Ensure quality of life, in ways that respect the environment and the patrimonial values (and) support the economic and socio-cultural activities for the security and well-being of the residents and visitors.”¹⁰¹</i></p> <p>A municipal says: <i>“even if we are for the economic development, we cannot disfavour nature.”</i> (2)</p> <p>An interviewed felt that the facilitation of the participatory planning process was not quite neutral: <i>“The consultants were oriented towards economic interests, one of them – a younger – was interested in environmental issues, but his ideas got ignored.”</i> (5)</p> <p>According to a former municipal, the PDC concerned forests in three respects:</p> <ul style="list-style-type: none"> - The management of the forest; - The education use of the forest and - The definition of zones with changed land use (9). <p>The draft PDC plan says that the forest is one of the main elements of the landscape in general and that it plays an important role in the stability of the soils. However, forests have not been at the centre of the discussions with the public (12).</p>	<p>The municipality controls the expression of conflicts by canalising most of the discussions of the working group on the expression of shared values.</p> <p>Both quality of life (cadre de vie) and local economic development are key concerns. The municipality defines its role in the balancing of these concerns.</p> <p>The environmental concerns are reduced to the subject of quality of the living place (cadre de vie).</p> <p>Some participants perceived the consultant agency as biased towards economic values, which would also be the priority interests of the municipality.</p>
<i>Structures of the process</i>	<p>The elaboration of a communal Directing plan is mandatory for Communes of more than 1000 inhabitants¹⁰² and so is public participation in this planning process (LAT Art. 4¹⁰³). The canton verifies the procedure and approves it before sending it back to the municipality. The plan has legal value for the communal authorities, not for the private sector. The municipality decided to start the PDC in 1996 when the Commune was</p>	<p>Participation in the elaboration of the Strategic plan is kept separate from the PDC. Participation in the PDC takes place in the form of a mandatory public inquiry procedure at the</p>

¹⁰¹ « Assurer un cadre de vie de qualité, respectueux de l’environnement et des richesses patrimoniales, supporter des activités économiques et socioculturelles garant de la sécurité et du bien être des habitants et des visiteurs » (p.23)

¹⁰² LAT 8548, modification de la loi d’application de la loi fédérale sur l’aménagement du territoire, June 4th 1987.

¹⁰³ The authorities charged of the territorial administration need to *inform the population on the plan mandated by the present law, on the objectives of the plans and on the procedure of planning. The authorities ensure that the population can participate in an adequate way.* The authorities are according to this law free in deciding how to organize the participation process and to integrate its results.

	<p>in an economic crisis. In July 1997, the municipality voted two credits, one for organising participation in the development of a Strategic Plan and one for the development of the Plan directeur communal, which takes also in consideration a plan regulating tourism activities (Plan partiel d'affectation - PPA). It is actually this later plan which is of greatest concern to the local population which is the construction of a train line across the communal forest and secondarily the use of water for artificial snow making. The PDC was yet not finalised at the time of the interviewing. The Commune had just finished the PPA.. The PDC needs also to take into account a whole series of cantonal plans: the cantonal orientation plan, the plan of sites with environmental constraints, a water shade management plan, a water protection plan, the cantonal forest orientation plan (Plan Directeur Forestier) and a cantonal stone mining orientation plan.¹⁰⁴</p> <p>For the communal strategic plan (PDC), the municipality advised by the consulting agency organized working groups during two weekends in November and December 1997 in order to register the wishes and proposals of the inhabitants :</p> <p><i>“We have constituted multiple working groups, about what could be improved in Leysin: traffic; flowers; trails; removal of old skiing lifts etc. All Saturdays were spent in them, after a while I stopped.”</i>(12)</p> <p>The consultants (outsiders to the Commune), facilitating the process and reporting results, submitted an intermediary version of the strategic plan to the working groups six months later, and finalised it by November 1998. The Strategic plan reports the results of the consultation in four sections entitled: <i>natural and architectural patrimony; organization of the territory; transportation and public spaces; public infrastructures</i>. According to a municipal, the working groups for the Strategic plan will be contacted again, when the PDC will be finalized and be submitted to a final mandatory public inquiry (enquête publique).</p> <p>The draft PDC states that the Nature reserve of 300 ha. [mostly above the tree line) was given in concession in 1981 by the Commune of Leysin to the Nature Protection Ligua (Pro-Natura, now renamed Equiterre) for a period of 50 years. This land is also part of the Federal Inventory of Landscapes of national importance. It is submitted to a total protection.</p>	<p>very end of the elaboration of the plan, after it has been approved by the Canton.</p> <p>The issues of greatest concern to the local people are related with tourism development projects. These are to a large extent decided in a separate planning process on which they have no direct influence (the PPA).</p> <p>The multiplicity of plans limits and confuses the influence of the Strategic communal plan and of local participation in this process. The Strategic plan defines mostly general orientations – based on the expression of shared and general values - abstracted from the decision over precise projects.</p> <p>A team of external professionals facilitates the process, structuring social relations and deliberations in ways that are not specific to the place.</p> <p>Since the municipality has signed a contract of delegated management for its nature reserve with Pro-Natura (Equiterre), it has to negotiate with this environmental organization on a continuous basis. Equiterre opposes the train project and the</p>
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The PDC refers also to the Plan Directeur Cantonal (1986) and the Plan Sectoriel des Sites – which informs the natural constraints of the Plan Directeur Cantonal, as well as of the Schéma de Développement et d'Aménagement Cantonal et des Bassins (as revised in 1998/2001), the Plan Cantonal de Délimitation des Zones de Protection des Eaux and the Plan Directeur Cantonal Forestier (en cours d'élaboration) as well as the Plan Directeur Cantonal des Carrières.

		extension of artificial snow-making.
<i>Strategies of the actors</i>	<p>Participants do not control the agenda of the planning process: <i>“After the consultants’ report we did no longer hear about it, we have been told that all is in abeyance till the Affection plan (PPA) is completed¹⁰⁵. Discussions seem also blocked about the train of La Berneuse” (12).</i></p> <p>The opposition to the train works in informal networks, in relation with their more formal environmental organization at the national and cantonal level: <i>“At the local level we have an associative network ready to be mobilised – it is actually not activated – but if the train project comes back, we will mobilise the sympathisers and we will make a leaflet going to all households.” (5)</i></p> <p>Forest related decisions are not directly addressed in the Communal planning processes: <i>“The municipality makes prior notices for the construction of new buildings and new roads, but the forest, it escapes the citizen (...) it is the business of the canton, it escapes the Commune.”¹⁰⁶ (4)</i></p>	<p>Participants are uncertain about the way the results of the consultation are used and the influence of their inputs.</p> <p>There is no space to deliberate at local levels about urbanization projects, therefore opponents act locally only through informal networks and act formally mostly through supra-communal institutional means at cantonal and national levels (lobbying, court action).</p> <p>Forest management decisions are not discussed in the communal planning processes. Residents have less say in forestry than in local urbanization projects.</p>

A comparative analysis of 21 collective agency processes

In order to ease the comparative analysis of the main participation processes identified in the six Communes studied, we have summarized their analysis in the following categories - as presented in the six above matrixes¹⁰⁷:

1. The initiator(s) of the process – launching it originally,
2. The actors in control, the authority deciding on who takes part, why and how
3. The participants involved in the process,
4. The main goal of the process and more or less stated objectives of the process,
5. The shared values of the process (repeated by several actors taking part)
6. The main conflicts (mentioned by several actors, these conflicts becoming *public issues*)
7. The strategies of the main actors taking part (from the perspective of the participants and the actors in control).

¹⁰⁵ The PPA has been accepted one year later the case. www.berneuse.ch/prolongement.htm

¹⁰⁶ *A quelles occasions pouvez-vous manifester votre avis sur la forêt ?* La Commune fait des préavis pour la construction de nouveaux bâtiments et de nouvelles routes, mais la forêt, elle échappe au citoyen (...) c’est l’affaire du canton, elle échappe à la Commune.

¹⁰⁷ There is one more category in the matrix format for the comparative analysis (8 columns in the comparative matrixes versus 7 rows in the detailed matrixes), because we differentiated the conflicts and the values in two distinct columns for the comparative analysis.

Along these categories, Table 19 presents a succinct analysis of the **six main cases studied of collective agency processes** (summarized from Tables 13-18 above):

- The municipal *wood commission* for Nancy sur Cluses (France)
- The *Association Foncière Pastorale* (farmland owners association) for Châtel (France)
- *Affouage* – organizing customary rights to communal fuelwood - in Vacheresse (France)
- *Four Banal* community oven in Vollèges (Switzerland)
- The *Label Nature* inter-communal association promoting a new protected area for Rossinière (Switzerland)
- The *Communal Strategic Plan* in Leysin (Switzerland)

Still using the same succinct analytical framework (matrix), Table 20 and 21 present another 14 collective agency processes.

Table 20 presents 5 collective agency processes identified in **the French Communes**:

Voluntary work to open trails, Opposition to the logging of an old communal tree (Nancy sur Cluses); Opposition to the construction of a protection wall, Wood Fair (Châtel); Natural Risk Prevention Plan (Vacheresse)

Table 21 presents 9 collective agency processes identified in **the Swiss Communes**

Bourgeoisie, Goillys du Lein et des Planches (Vollèges) ; Forestry group, Opposition to the reintroduction of the Lynx, La Meule à Charbon, Self help after the storm (Rossinière); Opposition to the construction of a train line, Environmental commission, Amodiateurs' rights (Leysin)

Table 19: Six main cases of collective agency processes (synthetic analysis based on Tables 13-18)

<i>Collective Agency Processes</i> French Communes	1. Initiators	2. Authority	3. Participants	4. Goals	5. Shared values	6. Main conflicts	7. Strategies
Wood commission (1) A municipal commission managing the communal forest Nancy sur Cluses	The municipality	The municipality	Three municipals and 1 resident (retired ONF agent) All men and above 60 years old.	The commission's goal is to keep an oversight over communal forest management, timber production and marketing.	The commission values the income from the communal forest and wishes to keep the management of its forests under control.	The commission contests the by ONF imposed diminution of timber volumes extracted (for allowing forest regeneration). Generational conflicts about forest management are not much deliberated in the commission because (there are no young participants).	The municipality needs to sustain its forest income, while it cares for good relationships with ONF agents. It tries to remain in control. The wood commission remains the main contact point for residents on questions concerning the communal forest. However, residents are little informed about deliberations taking place in the wood commission.
Pastoral Land Owners' Association (2) AFP (Association	The municipality and some farmers owning pastures	The associated landowners are supported by the SEA (Société d'économie alpestre), providing the AFP	Land owners, owning pastures in the Commune	- Organize collaborative action among landowners to maintain agriculture in the Commune;	Value farming and pastoral land-uses.	- Cutting back forests invading pastures - Restoring pastures used and damaged by skiing ;	The members tend to participate for their benefit, but invest little in the organization. Strategies involve

<p>Foncière Pastorale)</p> <p>Châtel</p>		<p>with a regulative structure and access to subsidies.</p> <p>The municipality, being the largest landowner and administrating to a large extent the AFP has considerable control over the AFP.</p>		<p>- Obtain subsidies for maintaining and restoring pastures and the pastoral economy;</p> <p>- Influence communal decisions over land uses.</p>		<p>- Promoting the construction and maintenance of pastoral roads (conflict with ONF and forest workers). - Preserving pastoral land from urbanization (conflict with land owners who want their land to be classed as construction land.) - Developing farming infrastructures and marketing of local farming products</p>	<p>partnership with the tourism sector (skiing slopes being also pastures, pastoral roads also trails for trekkers, high altitude stables serving also for recreation).</p>
<p>Affouage (3)</p> <p>Customary rights to collect fuelwood from the Communal forest</p> <p>Vacheresse</p>	Commoners	<p>The municipality and ONF</p> <p>The Commune and ONF decide about the affouage practice, (no co-decision by residents).</p>	<p>- One representative for each household (with full year residency) can register for the right to an affouage lot.</p> <p>- Mostly elder men, farmers and land owners</p>	<p>Regulating residents' access to and extraction of fuelwood from the Communal beech forest</p>	<p>For the Commune and for the residents earn some extra income from the Communal forest resource.</p> <p>- For residents -</p>	<p>Managing and minimizing conflicts related to the access and methods of extraction of communal fuelwood</p>	<p>- ONF uses affouage to engage (freely) residents in the removal of beech forest (beech being less economically valorized than spruce).</p> <p>- The municipality wants to maintain some affouage for</p>

			take part.		keep using and keep access to the communal forest resource for their households' energy needs.		<p>the extra forest revenue it represents.</p> <p>- The residents able to extract and process fuelwood wish cheap access to wood and to maintain their rights to the Communal forest.</p>
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<i>Collective Agency Processes</i> <i>Swiss Communes</i>	1. Initiators	2. Authority	3. Participants	4. Goals	5. Shared values	6. Main conflicts	7. Strategies
<i>Four Banal (4)</i> An association restoring and using a community bread oven Vollèges	A group of friends, mostly inhabitants of Vollèges	The steering committee of the association	114 members who paid 500 Swiss Francs to contribute to the community fund. Most participants are local residents and men. Only few (about 10) members engage actively in collecting fuelwood, in organizing festive events and in collectively baking bread.	Restoring and using a bread oven, animating social relations	Build social relationships around collective activities that value a common patrimony.	No conflicts (no political agenda) mentioned by the members.	Participation in the festive events is large, but less so for the common tasks of collecting fuelwood and running the organization. Participants – including local authorities get involved for furthering their social integration.
<i>Label Nature (5)</i> An intercommunal association promoting the creation of a new protected area Rossinière	Actors from the regional office of tourism, of the regional development agency ADPE, some municipals from the Communes of the Pays	Municipals from the region Pays d'Enhaut (Rossinière, Rougemont, Château d'Oex)	The committee includes agents from regional development and tourism agencies and some municipals but no representative from Equiterre	Creation of a new protected area, a Biosphere Reserve, possibly a natural regional park	- Improving the quality of life of the region, maintaining and developing jobs. - Reinforcing	Conflicts between some farmers, hunters and actors from the tertiary sectors - opposing local livelihood and autonomy interests with	The regional development agency ADPE is a broker between various institutional levels. The municipality of Rossinière seeks improved access to

	d'Enhaut, and actors related with the environmental organizations Equiterre.		(Pro Natura)		the region's self-governance capacity. - Conservation of the landscape and biodiversity, perceived as an asset for tourism	conservation interests defended by ENGOS and by federal and cantonal administrations .	subsidies and to promote the development of tourism. The municipalities of Pays d'Enhaut remain in control of the decision-making power.
Communal Strategic Plan (6) (Plan Stratégique Communal) A plan outlining shared visions for communal development Leysin	The municipality pressed by the Canton	The municipality and ultimately the Canton	The public, openly defined, but because of the nature of interest it is mostly residents who take part.	Elaboration of a Communal Strategic Plan orienting the Communal Directing Plan.	- Improving the quality of life (<i>cadre de vie</i>), - Integrating economic and environmental values	The main conflicts are between actors favoring the further development of tourism infrastructures and actors favoring environmental conservation	<p>The municipality sets the agenda of the planning process and controls the organization and use of participants' inputs.</p> <p>Participants express values but communal authorities avoid the expression of conflicts.</p> <p>Opponents act through local informal relations and by lobbying at regional and national levels.</p>

Table 20: Secondary cases of collective agency processes in the French Commune

<p>Wood Fair (10)</p> <p><i>Fête du Bois</i></p> <p>A yearly festive Sunday organized each year around the 20th of July for locals and tourists.</p> <p>Châtel</p>	<p>The initiative to organize the Wood fair comes from the Director of the Office of tourism of Châtel (formerly a wood joiner). The fair has taken place over the last eight years. It does not correspond to a traditional fair.</p>	<p>The committee of organization includes:</p> <ul style="list-style-type: none"> - The office of tourism, The private skilift company (one of the most lucrative in Haute-Savoie); - The municipality and - The local ONF agency, which helps organizing the logging and sculpturing contests. 	<p>Local craftsmen demonstrate their skills to the public, besides selling their craft.</p> <p>The public are local people and tourists, many of the latter coming from urban areas.</p>	<p>During the festive Sunday, the forest guards from ONF organize a logging or a wood sculpturing contest. The themes of the sculpture are traditional symbols: the dove (which symbolizes birth, fertility), the <i>seille</i>, (a large milk-container made of wood, symbolizing productivity) etc.</p>	<p>Beyond the contests the aim is to animate the village, to attract visitors in summer time, to value the local patrimony and to communicate an environmental message in a festive atmosphere. As a token, each visitor receives a slice of a sawn spruce branch.</p>	<p>No conflict is mentioned</p>	<p>The strategy is to satisfy mostly a tourism oriented animation demand, in order to enhance also the attractiveness of the resort to visitors in summer time.</p> <p>The festive day serves both as an animating and as an environmental awareness raising event (it is a carefree day) to which the urban summer tourists are particularly sensitive.</p> <p>The event legitimizes the powerful actors of the Commune. It is an opportunity for them to collaborate on a project that builds on consensus values.</p>
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<p>Natural Risk Prevention Plan (11)</p> <p>PPR (Plan de Prévention contre les Risques Naturels), with a public inquiry</p> <p>Vacheresse</p>	<p>The municipality, under the mandate (the Region's Prefect), has to elaborate a Natural Risks Prevention Plan.</p> <p>Experts from ONF and RTM (Restauration des Terrains de Montagne) develop the plan, submit it to the municipality and then to public inquiry (enquête préalable de droit commun)</p>	<p>The planning process is controlled by the State.</p> <p>In case of imminent danger, the Prefect of the Region can decide on measures after consulting municipalities, and before undertaking a public inquiry.</p> <p>The Prefect can impose to any public or private actor a PPR measure.</p>	<p>The municipalities are residents of the Commune are consulted</p> <p>The public inquiry is a regulated procedure: it has to last fifteen days at minimum, it needs to be announced in the local media and on public boards.</p>	<p>The public is informed with a documented plan about a proposal for zoning land exposed to risk (taking into account the nature and the intensity of the risk) and forbidding accordingly construction or requesting preventive measures.</p> <p>A public inquiry commissary receives the public. The commissary takes written account of the expressed opinions, and delivers at the end of the procedure a final report about the inputs, adding his own conclusions.</p>	<p>Protecting populations from natural risks</p> <p>The risks as defined by national law are "foreseeable risks", including: inundations, earth slides, avalanches, forest fires, earthquakes, volcanic eruptions, storms and cyclones. (Décret no 95-1089, 5/10/1995)</p>	<p>There are conflicting views between some local authorities, private interests and ONF/RTM experts. They oppose urbanization and economic interests versus risk prevention or mitigation interests.</p> <p>According to interviewees, some see their property losing value and some regret loss of opportunities for developing an economic activity on some land. These actors tend to complain to be paying for a common security interest.</p>	<p>For administrations the strategy in holding public inquiry is to legitimize a plan which restrains urbanization.</p> <p>According to interviewees, even though several owners saw their property value affected by the plan, only one went to consult the PPR at the townhouse and he did not deliver any written notice.</p> <p>The municipality had a project of developing an industrial zone, which was jeopardized by the plan. Some municipal(s) tried but could not convince the ONF related RTM administration to loosen its urbanization restrictions.</p>
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Salvage wood (12) (Ventes de Chablais) Communal salvage wood sales Vacheresse	The municipality	<p>The municipality and ONF</p> <p>The municipality follows a calendar and a routine procedure to sell the salvage wood to residents.</p> <p>As advised by ONF, the municipality makes public notices to announce the volumes and places where salvage wood can be collected. It fixes prices and registers the interested residents.</p>	Residents	<p>Satisfying and organizing resident's access to communal timber;</p> <p>For the Commune, earning forest revenues;</p> <p>For ONF, managing the communal forest by using local (cheap or free) forest working capacities.</p>	<ul style="list-style-type: none"> - Meeting local livelihoods needs; - Using rather than wasting local forest resources; - Taking care of and "cleaning" the forest. 	<p>Conflicting interests between professional forest workers (engaged in the regional and global timber economy) and part time forest workers functioning in a more informal subsistence-based type of local forest economy.</p>	<p>For ONF and the municipality the strategy is to involve at low costs residents to do forest sanitation work and to remove dead or old wood.</p> <p>For the participants, the aim is to have access to timber below the market value for their own use or for selling the product on a small scale.</p>
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Table 21: Secondary cases of collective agency processes in the Swiss Communes

<i>Collective Agency Processes</i> <i>Swiss Communes</i>	1. Initiators	2. Authority	3. Participants	4. Goals	5. Shared values	6. Main conflicts	7. Strategies
Bourgeoisie (13) A community of owners of local forests and pastures Vollèges	Commoners (bourgeois)	Bourgeoisie Counsel elected by the assembly of the bourgeois (meeting once a year). The bourgeois counsel is part of the municipality. Out of the seven elected municipals, four are bourgeois.	About two thirds of the 1400 residents in Vollèges are bourgeois (holding the acquired or inherited right).	Sharing rights and responsibilities in respect to the commonly owned land and resources.	A patrimony to maintain, valorize and fructify.	- Legitimacy of the bourgeoisie vis à vis the State - Difficulty to raise revenue (from the forest in particular)	- Maintaining bourgeois rights and their organization's economic capacity by staying involved in local politics; - Merging the region's bourgeoisies in order to hire common forester, diminish forest maintenance costs, develop forestry project that open access to subsidies.
Affouage rights from the forest belonging to the bourgeoisie (*) * We have studied a case of affouage in Vacheresse, but the practice in	Commoners of the bourgeoisie are historically organized since before the constitution of the State and the Commune.	In principle, the bourgeoisie is the authority for administrating rights to its forest goods. However, the municipality's secretariat takes the registration	There are about 150 bourgeois and non-bourgeois residents taking part in the yearly affouage sales. Bourgeois pay their affouage	Use the local forest resource and maintain the forest.	- Use ones right to local commonly hold forest resources - Practice the traditionally valued harvesting, preparation and	No conflicts mentioned, but problems with lifestyle changes that decrease interest and capacity among the young for practicing affouage.	For the bourgeoisie, affouage is a means to maintain some revenue. For the residents, affouage is a means to keep access to local resources, at a price below the

<p>Vollèges varies, also because the forest belongs to the bourgeoisie, not to the Commune.</p> <p>Vollèges</p>		<p>and fees for affouage.</p> <p>The forest service is in charge for logging shares of 2 m³ of 1m. long poles per household (of spruce, sometimes larch and pine). It marks the piles to the registered right holders and brings them to the road side.</p>	<p>rights slightly less than non-bourgeois residents.</p> <p>The right holders fetch the timber on the road side and cut the poles.</p>		<p>use of one's own fuelwood, in family or kin groups.</p>		<p>market value.</p>
<p>Goillys du Lein et des Planches (14)</p> <p>The restoration and protection of two ponds in forested pastures.</p> <p>Vollèges</p>	<p>The district Forest Service launched the ponds' restoration project in 1992.</p> <p>The bourgeoisie agreed to give the land around the ponds to allow the project in exchange of another sector.</p>	<p>The municipality</p>	<p>A partnership between:</p> <ul style="list-style-type: none"> - The Bourgeoisie (owning and giving access to the land) ; - The Commune (paying for the digging of the pond, water installations and fencing) - The farmers and consortages (a collective 	<p>The restoration and conservation of two ponds: the Goillys du Lein et des Planches. The goal was to increase the biodiversity, landscape and recreational value of the site. The project valued also the local cultural patrimony – recalling with</p>	<p>The patrimonial, conservation, recreation and educational value are all mentioned by the interviewees.</p>	<p>The municipality mitigated some conflicts between residents who had water quality concerns related to pastoral uses near the ponds. Farmers agreed to install fences and protect nearby water wells, the municipality to control regularly water quality.</p>	<p>Several inhabitants interviewed ignored who initiated the restoration project and what was the role of the different local institutions in its realization and its current management. Some believe it was "the ecologists", who initiated it, either confusing "ecologists" with the foresters, or ignoring the distinct role of the district forest service. The strategy of the</p>

			association of pastoral infrastructures' owners and managers), restricting the pasturing of the concerned area. - The Forest Service (Service des Forêts et du Paysage du 7 ^{ème} arrondissement) is the main initiator and advisor.	the restoration project that the ponds were used in former times to wash the linen. The project has also an educational purpose, schools often visit the site, and the forest district officer gives regularly information on the fauna, flora and the ecological system in and around the ponds. There is public access to the ponds.			district forest service is to remain modest in its initiating role in order to invest the responsibility of its local partners, the municipality, the bourgeoisie and the farmers.
Forestry group (15) <i>(Groupement Forestier)</i> A regional forest owners' and managers' association Rossinière	The Forestry group was created in 2001 in partnership between the cantonal forest service and the three municipalities of the Pays d'Enhaut. While before Lothar the	The municipalities initiated the creation of the forestry group investing in its constitution under the condition that it would then run self-sufficiently.	The group is a public-private partnership, involving, besides the municipalities, the cantonal forest service, a private enterprise (Landschaft), workers unions	The aim of the group is to develop forest projects at the regional level, to associate forest owners for facilitating access to subsidies, to reduce costs of operation and	- The shared values are maintaining the local forest economy, enabling forest owners - private and public - to maintain their forests.	In a context of declining forest subsidies provided by federal instances, local forest agent's - alike forest owners and forest workers - are pressured to find ways to	The State forestry agents, thanks to the forestry group, support all types of forest owners – Communes included – in developing and promoting forestry projects. In particular, they help local actors to get by with bureaucratic

	<p>group was not very active, after Lothar the initiators were motivated by the scale of forest interventions needed and the subsidies available, to give the group a new impetus.</p>	<p>The director of the Forestry Group is a district forest agent living in Rossinière.</p>	<p>and private forest owners.</p> <p>The group's employed workers are three foresters-loggers and one or two young people in training positions.</p>	<p>to collaboratively organize timber marketing.</p> <p>The goal is also to maintain local forestry related jobs with well trained professionals.</p> <p>Forest owners and the Communes hire the group for extractive operations, for silviculture, sanitation and pasture clearing.</p> <p>The group also organizes access for interested local farmers to communal timber.</p>		<p>maintain the mountain forest economy. In this respect there are conflicting interests between local forest related agents and agents which economic and political strategies of action are structured at regional, national and global institutional levels.</p>	<p>procedures for obtaining subsidies (private forest owners being quite unlikely to obtain subsidies on their own).</p> <p>The forest owners sign a convention with the forestry group enabling it to take care of their property. They may not pay anything for that service, but the group can market the timber extracted and keep the income.</p> <p>In the Forestry 2000 project, the Commune of Rossinière is the main owner and has taken the leadership of the project. It involves however private forest owners. For this project, the private owners do not pay for the maintenance of their protection forests, but leave all possible income from timber sales to the</p>
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							Commune.
<p>Opposition to the reintroduction of the Lynx (16)</p> <p>Rossinière</p>	Some of the region's hunters and farmers	<p>The members form a spontaneously organized and informal association.</p> <p>Membership is expressed informally by obtaining and showing a sticker representing a lynx as a shooting target.</p>	Mainly hunters and livestock keepers from Pays d'Enhaut	The goal is to reduce the density of lynx on the territory out of concern for the deer and livestock populations.	The shared value among the local actors is to be autonomous in the management over the local territory: for farmers to protect their livestock and for hunters to maintain deer population.	<p>There are conflicts between local users and State environmental experts managing the lynx reintroduction, (disputed estimates about lynx and deer populations, about the impact of lynx on livestock and deer).</p>	<p>The strategy has been mostly based on opposing and sabotaging the reintroduction of the lynx. Opponents argued that it is a territorial intrusion by outside and upper governmental agencies and environmental organizations in disrespect of local interests, including land ownership and use rights. They contested also the environmental expertise of the administrations and associations promoting the reintroduction.</p> <p>Strategies of promoters have been to distribute compensations, to provide technical support to shepherds, to monitor and limit the lynx population and to provide information.</p>

<p>La Meule à Charbon (17) (Charcoal making fair)</p> <p>A festive day in the forest organized around the building of a charcoal-burning pit.</p> <p>Rossinière</p>	<ul style="list-style-type: none"> - The office of tourism of Rossinière - The local forestry agents - The municipality of Rossinière 	<p>The office of tourism coordinated the organization of the festive day taking place in the communal forest.</p>	<p>Residents and visitors from outside the regions took part.</p>	<p>The aims were to:</p> <ul style="list-style-type: none"> - Attract visitors to the region and animate social relations; - Raise awareness about local forestry (the forest inspector reporting on forestry activities done after Lothar); - Link past and present practices (demonstrations of past and modern logging and hauling methods, building a charcoal making pit etc.) 	<p>The event animates shared patrimonial values using the communal forest as a federating place (reconciling a community otherwise divided on conservation issues).</p> <ul style="list-style-type: none"> - After Lothar, the event celebrates the regeneration capacity of the forest and the local social capacity to recover from a crisis. 	<p>No particular conflict is mentioned in relation with the event – but several interviewees said that the event helped local actors to reconcile (i.e. conflict about the lynx, etc.).</p>	<p>For the office of tourism the festive event highlighted Rossinière as an interesting destination for visitors.</p> <p>For the municipality, the festive event legitimized local governance structures.</p> <p>For the Forest service, the event helped to raise awareness about forest values and its role in reproducing them.</p> <p>For the residents and visitors, it was an opportunity to build social relations, a means to value the local patrimony.</p>
<p>Self help after the storm (Lothar) (18)</p> <p>Rossinière</p>	<ul style="list-style-type: none"> - Residents of Rossinière, - The municipality 	<p>No particular leadership, spontaneous, collective self-help actions.</p>	<p>Actors involved are spontaneously mobilized individuals and more organized</p>	<ul style="list-style-type: none"> - Local residents offered mutual help - The cantonal forestry sector 	<p>A shared sense of solidarity has awoken among the local population.</p>	<p>There was no conflict expressed but a shared problem: roads and communication</p>	<p>The storm has enhanced local actors' trust in their social capacity to collectively organize for recovering from</p>

	- Regional forestry associations (Covalbois) Etc.		groups. The self-help local initiative becomes public assistance when cantonal and federal reparation actions are launched.	helped in selling parts of the damaged wood - The Confederation financed some fifty loggers to clear most of the 20'000 m ³ of damaged wood. - The Commune saw most of its 1,6 million Swiss Francs worth damages reimbursed by State agencies.	Local actors became suddenly aware that without their forest - they had partly forgotten because of its decreasing economic value - they would not be able to live in their mountain Communes.	severed; houses and forests damaged, etc. An ancestral fear and respect of mountain communities in front the force of nature was reawakened and with it the importance of solidarity.	difficult situations. The storm has been used strategically by the forest sector to enhance political interest in forests at the communal level. The creation of the Forestry Group (<i>Groupement forestier</i>) has in part been motivated by this mobilization related with Lothar. The storm was (strategically) used by local authorities for mobilizing - beyond self help - public assistance.
Opposition to the construction of a train line (19) Leysin	Spontaneous mobilization of residents Mobilization of members from organized environmental organizations.	Authority is not stated by local actors – but the local network of opponents is in relation with a coalition of environmental organizations,	The group opposing the train at local levels is built mostly on informal personal relationships. Local membership in the opposition is not stated	The goal is to prevent the construction of the extended train line – mostly for environmental and landscape reasons, but also for economic reasons (based on disputed	- A shared interest in maintaining local quality of life, associated with a preserved environment. - A shared perception of threat for this quality of life,	The conflict opposes powerful tourism entrepreneurs, with influence on communal governance, against part of the Commune's residents and various environmental organizations	The strategy of opponents to the construction of the train is to use mainly lobbying and court action at cantonal and national levels. Opponents are organizing their actions with the support of non-governmental

			openly.	estimates about the returns of the new infrastructure).	due to urbanization and environmental impacts of recreational activities.	active from local to national levels.	environmental organizations influential at upper administrative levels. The promoters of the train project have considerable influence on communal decision-making structures and they also lobby political leaders at cantonal and national levels.
Environmental commission (20) A mixed consultative commission organized by the municipality to advise it on environmental matters Leysin	The new municipality elected in 2002 seems motivated to govern in a more transparent and participatory way. It gives a new impetus to a dormant consultative environmental commission (created in 1990).	The municipality stays in control over the agenda and the final decisions discussed in the environmental commission.	The commission is composed of four municipals, representing each political party (Liberals, Radicals, and the Independents), and three chosen residents. One is active in the environmental organization Equiterre, a second is a farmer, and a	The first meeting of the commission after the municipal elections of 2002 was about the Lake Aï and the nearby mountain village situated in Leysin's Nature reserve. The next meeting planned at the time of the interview was to discuss waste management.	Participants agreed that they valued the " <i>qualité du cadre de vie</i> " and wanted to respect the environment and patrimonial riches, as well as to promote economic, social and cultural activities for ensuring the security and the well-being of inhabitants and visitors (p.23,	The commission has the mission to mitigate conflicts between economic interests – based on tourism - and environmental conservation interests.	The new municipality has the will to involve residents who are critical of the Commune's management, in particular regarding tourism infrastructure development and land uses. However, the environmental commission has only a consultative power and is not entirely free in setting its agenda. According to a participant in the

			third is expert in waste management. The municipals are all working in tourism and service related activities.	The themes are proposed by the municipality, but the members of the environmental commission can propose theirs too.	PDC, 2003)		commission “ <i>the big issues, artificial snow making and the train are reserved to the municipality</i> ”. (5)
Amodiateurs’ rights (21) (Pastoral land renters’ rights) Farmers who rent communal pastures have a right to cut communal timber for making fencing poles. Leysin	The Commune has regulated over more than two hundred years access to and uses of communal pastures through contracts with farmers.	The municipality	Farmers hiring communal pastures	The farmers renting communal land are called <i>amodiateurs</i> . They have a right to fell the trees on communal pastures for making fencing poles. This right dates back to the 19 th century. In exchange the amodiateur commits to maintain its livestock fenced, to avoid overgrazing and pasture degradation with invading weeds.	The shared use and the maintenance of the common pastures is nowadays not only valued for the pastoral economy but also for the landscape and for tourism related uses.	According to a municipal, the renting of pastoral land is given in preference to farmers doing some maintenance work. According to a farmer, the quality of trees marked for the amodiateurs to take have lately not been suitable — because they were from spruce damaged by the bark beetle.	The municipality tries to negotiate farmers’ access to pastures against some maintenance work. Farmers have constituted a mixed consultative commission in order to better negotiate their rights, also regarding the use of pastoral roads, and access to pastures.

C. A typology of collective agency in relation with communal forests

According to the answers obtained to the questions of **Who** is taking part, initiating and controlling the process? **Why** do actors engage in the process (objectives, conflicts and values addressed in the process)? **How** and when do the different actors take part (social structures shaping the process and actors' strategies) we notice that there are quite different collective agency processes. Analyzing who are the actors initiating, controlling and taking part in the process reveals power relations which lead to distinctive collective agency processes. These processes can be further distinguished according to the objectives – conflicts and values - motivating various actors to engage, to use and adapt social structures and to develop their strategies of action. We propose accordingly five categories of collective agency processes:

- I. Citizen contestation
- II. Common resources management
- III. Representatives' policy making
- IV. Public consultation
- V. Public animation

The distinctive features of these collective agency processes are presented in the next table based on the analysis of the 21 processes

Table 22: A Typology of collective agency in relation with communal forests

		I. Citizen contestation	II. Common resources management	III. Representatives' policy making	IV. Public consultation	V. Public animation
WHO ?	Initiator	Self-defined and self mobilized local citizens (residents, workers, or users)	The common right holders	Local authorities and organised stakeholders legitimised by the State or local authority	State-led process with local authorities acting as intermediaries	Local authorities and key organized stakeholders
	Actor in control	Control by the self-mobilized actors	The municipality and the State forest agency	Usually controlled by local authorities (municipalities and State agencies)	Controlled by authorities (local, regional and national)	Local authorities and key organized stakeholders
	Actors involved	Individuals acting as formal or informal <i>members</i>	Right holders – often opened to all communal residents	Only selected representatives can take part and act as <i>partners</i>	Citizens or/and representatives of associations	Open to all public, local people, associations and visitors
WHY ?	Objectives	Pressure on decision-makers to oppose actions they promote Issues defined by the members	Negotiation and allocation of rights & responsibilities for sustainably managing the resource for the right holders Issues defined by the users	Develop local forest and natural resource policy-making and management capacities Issues are collaboratively defined by the partners	Informing and gaining legitimacy for authority-led plans Issues are largely defined by the authorities in control	Animate social interactions, valorising the local patrimony and the attractiveness of the territory Not issue based
	Conflicts and values	Action is mobilized around conflicts, the process ends when the conflict is resolved Values are challenged, hitherto marginalized or externalized values are promoted	Conflicts are considered when they threaten the resource and the user group Shared values are reproduced through collective rituals	Conflicts concern mostly the relation between local and above institutional levels Conflicts are selectively addressed for defining consensus values	Conflicts are controlled or suppressed by the authority Participants formulate individual concerns but have little opportunity for co-defining shared values	No conflicts formally addressed but opportunities of informal exchange for mitigating conflicts are created Reproduction and ritualization of consensus values
HOW ?	Structures of the process	Loose institutionalisation of leadership and resources are voluntarily invested by participants Local communication through informal networking	Organisation is formal and permanent. Rules, allocation of resource and investment is negotiated among members Communication is formal and informal	The organization, decision-making, investment and allocation of resources are negotiated among partners Communication tends to be formalized	The final decision is taken by the controlling agency and resources are provided by the authority Communication is formalised or procedural	The decisions of how to organize the animation events rests partly with local authorities Communication is both formal and informal
	Strategies of the actors	Members enhance their bargaining power by collective action and use local informal modes of pressure and more formal supra-communal modes of influence (lobbying, court action, campaigning with NGOs, pressure via the media)	Right holders adapt their common rules to changing : - needs and capacities of the right holders; - power relations with State and municipal agencies and - conditions of the resource base	Partners adapt their capacity by optimizing their relations with broader governance and economic structures Partners seek to consolidate relations with constituencies (representativeness)	The authority seeks to maintain or increase its decision-making power (legitimacy) Participants seek to influence decisions but don't control the final decision	For the participants, the event favours social integration For local authorities, the event legitimises local institutions by reproducing consensus values

Using the same format of the matrix above that describes the distinctive criteria for the five categories of collective agency processes, we ordered the names of the twenty-one examples identified classed by row according to the Commune where we identified them.

Table 23: Collective agency processes identified in the selected Communes by agency type

Communes	I. Citizen contestation	II. Common resources management	III. Representatives' policy making	IV Public consultation	V Public animation
<i>Vacheresse (F)</i>		3. Affouage 12. Salvage wood		11. Natural Risk Prevention Plan	
<i>Nancy sur Cluses (F)</i>	8. Opposition to the logging of an old communal tree	<i>Salvage wood</i> 7. Voluntary trail making	1. Wood Commission		
<i>Châtel (F)</i>	9. Opposition to the construction of a protection wall	<i>Salvage wood</i>	11. Pastoral Land Owners' Association		10. Wood Fair
<i>Vollèges (CH)</i>		13. Bourgeoisie 4. Four Banal Affouage	21. Goillys du Lein et des Planches		
<i>Leysin (CH)</i>	19. Opposition to the construction of a train line	21. Amodiateurs' rights 12. Environmental commission		6. Communal Strategic Plan	
<i>Rossinière (CH)</i>	16. Opposition to the reintroduction of the lynx		5. Label Nature 15. Forestry Group		17. Meule à Charbon

18. Self-help after Storm

In bold are highlighted the agency processes that we have more fully analyzed. All processes presented in the matrix above are described also in the communal profiles (Chapter IV). In italic are the similar processes we found in several Communes but represented just once on the graph on the next page (Figure 73). In this graph, inspired by Giddens' structuration theory, we placed the twenty-one processes of collective *agency* according to who are the main agents (X axis) and how they use and/or change social structures (Y axis). The structures are produced, reproduced and changed through social action. The processes located on the negative side along the Y axis mainly *reproduce* social structure, while the ones on the positive side tend to *change* them.

Figure 68

21 collective action processes in Alpine communal forests

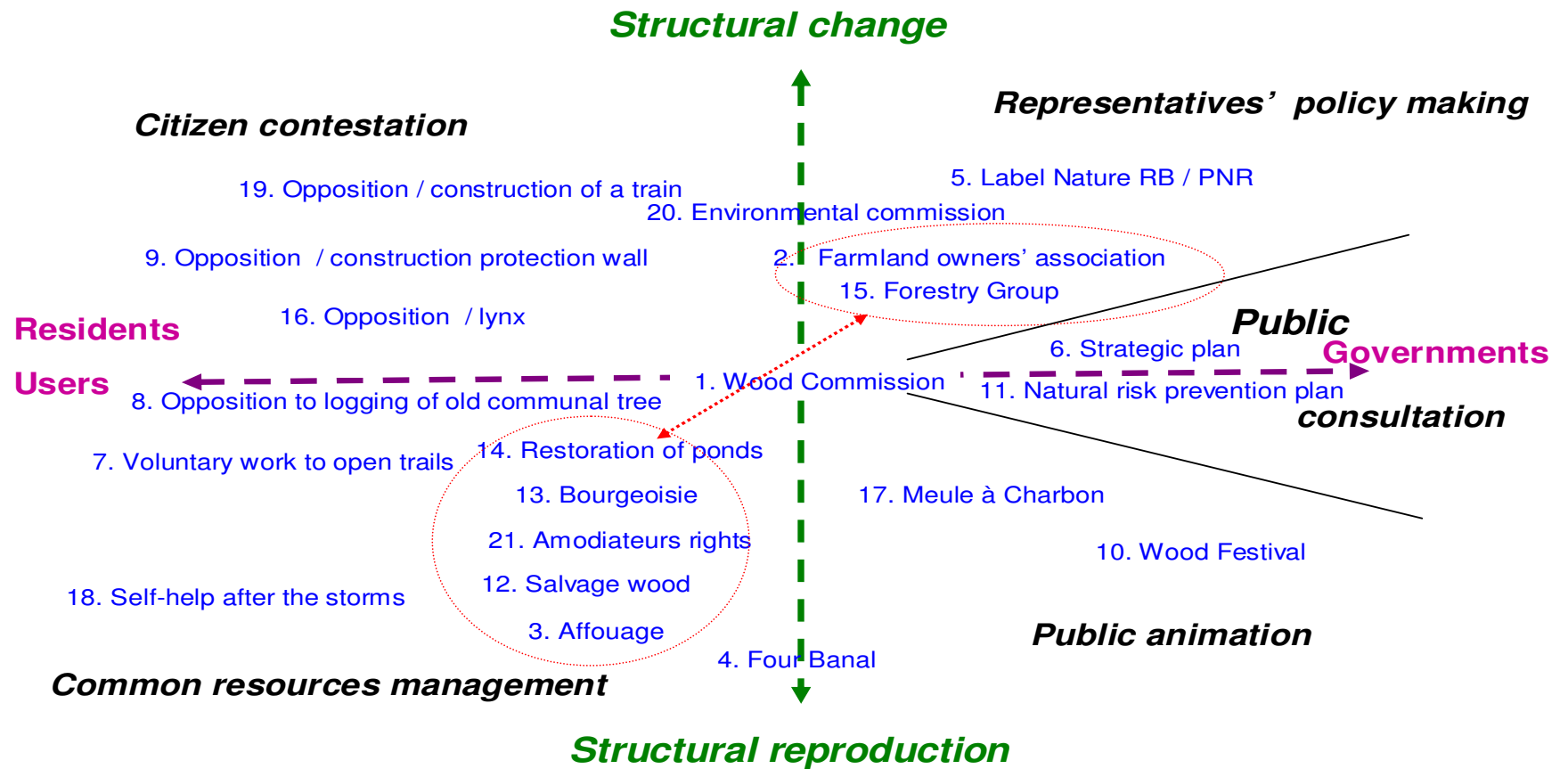


Table 23 lists the twenty one collective agency processes into five columns, which distinct categories are placed in the Figure 73 above. These examples of local collective agency processes and the five groups to which they are associated are placed according to:

- The local agents' relative dependency or autonomy from communal, regional or national governmental agents (X axis);
- The extent to which the collective agency reproduces or changes social structures (Y axis).

The five types of collective agency processes - grounded on the analysis of the 21 processes – are distinguished along the same agency function considering the agents in control and the relation of agency with social structures:

Citizen contestation: local actors self-define their stakes and oppose actions decided by some authorities. Even though they are issue based their strategy of opposition is a reaction to structural constraints and therefore a type of social action aimed at structural change.

Common resources management: local agents holding user rights reproduce their rights and responsibilities over common resources.

Representatives' policy making: representatives of organized local stakeholders – often governmental representatives - collaboratively change (develop or influence) policies

Public consultation: an authority consults the local public for its opinions on largely pre-defined land use orientations. It remains mostly in power over the ultimate decision. Even though the consultation opens the opportunity for structural change it mostly legitimizes (therefore reproduces) existing social structures, (reason why this type of agency straddles the X axis).

Public animation: local authority related agents create social events for reproducing consensus values, which legitimizes also local institutions.

The twenty-one collective agency processes identified in the six Communes are placed in Figure 73 by comparing them according to whether they are more or less controlled by governmental agents or local users and to what extent their action is aimed at reproducing or changing social structures.

- Towards the top of the figure, we have the agency processes, where there is substantial **governmental** involvement, from either a regional or a national agent, be it by providing incentives in forms of subsidies, which is the case for the identified **representative policy making processes**. The representatives' policy-making processes aim mostly at increasing the influence of local organized actors from the public, private and sometimes the civil (associative) sectors too. They promote new policies and structural changes that should increase the partners' relative autonomy or margin of freedom in defining local economic and social development. The *Label Nature* initiative, for creating a new natural regional park (Rossinière, 5), is exemplary in this respect. The local representatives promoting the project seek to increase their decision-making power by defining strategies of action at an inter-communal level (among three Communes), they aim both at enhancing their autonomy in defining environmental standards or local land uses, while increasing their access to financial resources (through augmented subsidies and tourism related revenues).

Some examples are straddling lines between the categories, because they have mixed features. We located likewise the Environment Commission of Leysin (12) on the axis straddling the **Representatives' policy making** processes and the **Citizen contestation** processes, because the commission is related with the conservation related concerns for which local actors self-mobilized and created an influential local opposition to an urbanization project (opposition to the train, 1). It is in order to mitigate this conflict that the municipality constituted this mixed (with four municipals and three residents) consultative (deprived of direct decision making power)

commission. The *Pastoral Landowners' Association* (AFP Châtel, 2) is controlled to a large extent by the municipality (because the Commune is the largest land owner and offers secretarial services), but legally (by its status) the AFP is a landowners' association in which the municipality is only one of the landowners of otherwise more self-mobilized right-holders.

For the **public consultation processes**, we have identified two processes that do only indirectly concern the communal forest. We placed the *Communal Strategic Plan* (Leysin, 6) above the *Natural Risk Prevention Plan* (Vacheresse, 11), because it the former involved more local actors and the municipality was more pro-actively organizing participation than it was the case for the Natural Risk Prevention planning procedure. The public consultation processes are close to the 0 value of the Y axis because they are mostly procedural and are barely changing social structures.

We located the *Wood commission* (Nancy sur Cluses, 1) at the centre of the graph, because the agents involved are from the municipal government and chosen among residents, and because they altogether represent not only municipal interests but also local users' claims that are still associated with a collective memory of a forest belonging to the commoners.

Under the collective agency processes, which goal is mainly **the management of common resources**, the example of *affouage* (Vacheresse and Vollèges, 3) shows the change of a collective practice that stemmed originally from self-organized agency of local claim holders to a form of agency that is nowadays largely organized and controlled by the local State forest agents and by the (State related) municipalities. In Valais, the owners are the bourgeois, however, their assembly (the *bourgeoisie*, Vollèges, 13) is mostly integrated in the current municipal administration. We illustrated this increased governmental involvement in communal forest management by the red bubble and arrow leading from the lower left part of the graph to the upper right quarter - towards government and authority-led interaction processes. State forest agencies are not promoting *affouage*, but accommodate local users' when and where their demand based on these customary rights subsists. We placed *Four Banal* (Vollèges, 4) a little more at the rights side from *affouage*, because the former association got some federal subsidies to restore the bread oven, and we placed it on the right side of *affouage*, because its very aim is to ritualise and reproduce local social structures that confer identity and social integration. In fact *affouage* practices have adapted (slightly changed) their rules in both Vollèges and Vacheresse over the last decades, with changing occupations, land uses and energy demands. There are also modern and punctual forms of collective agency processes, building on solidarity systems derived from a cultural legacy of common property regimes. For instance, in Nancy sur Cluses, the spontaneous but still quite regular initiative of residents to collectively and voluntarily work for managing the communal territory (*opening trails* and *skiing slopes*, 7). We have placed this process at the left of the lower right quarter, because these initiatives – mainly of young residents – also intend changing some local governance structures and power relations. Indeed, their agents think the municipals (mostly elder) are not enough promoting recreation values (i.e. conflict and value analyses for Nancy sur Cluses). We placed *self-help after the storm* (18) at the lower left side of the graph, because it indicates a good capacity of self-mobilized agency, but we placed it also largely at the lower level of the Y axis, because it aims mostly at reproduction social structures.

Collective agency processes, which goal is mostly to produce events for **public animation**, come close to *Four Banal* (Vollèges, 4), and are mostly aimed at the reproduction of local structures. Public animation processes are situated on the right side of the graph because they tend to be authority-led. The *Four Banal* process straddles the 0 value of the X axis because its agency is largely self-mobilized and organized along common property regimes principles, at the difference from the *Meule à Charbon* (charcoal making demonstration, Rossinière, 17) and of the Wood Fair (*Fête du Bois*, Châtel, 10), which events are created by local authorities (municipalities, offices of

tourism and forest services). The forest is in these cases rarely referred to in terms of the “communal” forest, but more often in terms of “the forest” – some saying the “public” forest, to which visitors and urban populations feel they have equal and open access to. This notion of “the forest” refers more to an environmental, landscape and recreational asset, than to a pool of resources securing local livelihoods (as it was prevalent in former alpine common-property regime systems). The local forest, where these ‘modern’ public animation events *take place*, tends to be represented in terms of an open access *place*. In these events, formerly common property resource management based social practices are readapted and ritualised in ways that interest a wide public, including visitors, for promoting tourism related activities, besides fostering local social integration. We situated these public animation events, on the lower part of the graph because they mostly reproduce social structures for valuing consensus values and for legitimising local institutions and authorities.

Concerning the local *self-defined contestation* type of collective agency, we have several comparable examples: the opposition movements (we say movements because not organized into associations) against the *construction of the train* (Leysin, 19), against the *reintroduction of the lynx* (Rossinière, 16), against the *construction of a protection wall* to prevent rock and log fall (Châtel, 9). All these actions are the expression of local residents, owners, users and/or workers collectively contesting some project supported by some authorities. We placed the mobilization against the *construction of a train* line across a mountain forest (Leysin) more at the right to the opposition to the *construction of the protection wall*, because in Leysin opponents are also supported by some cantonal and national level authorities (but not by the municipal authorities). We placed the *opposition against the train* over the opposition to the *construction of the wall*, because the opponents in Leysin managed to be influential in changing some local structures (changing the composition of the municipality and local political parties). Some actors taking part in this network said that local authorities became “more open to dialogue”, which shows also the present municipality’s constitution of an *environmental commission* (20) and its facilitation of public participation in the development of the *communal strategic plan* (6). In Châtel, at the time of the interview, the opponents to the *construction of the protection wall* were less organized and were not capable to raise their particular concerns (mostly centred on their own property claims) to an issue of more general public concern. Self-mobilized contestation forms of agency are often ad-hoc and issue-driven: if the public issue is resolved or displaced, their organization tends to dissolve. These opposition movements may, however, also endure or reappear into other forms, but often with more or less the same actors involved, especially when these networks are based on the expression of core conflicts (Coser, 1954). We noted in Châtel, that the *opposition against the construction of the protection wall* is related to the political, economic and cultural marginalization of the local forest sector (i.e. Chapter V.B).

About half the collective agency processes identified and represented in the Figure 73 rare more authority-led and half more self-mobilized. We further notice that there is a trend of increased control in relation with *common resource management systems*, however with the apparition of a hybrid type of collective agency which integrates both features from the common resource management type and the public animation type (i.e. Four Banal). We notice also a growing importance of *collaborative policy-making processes* mostly led by local municipal agents or/and by tourism officers and seeking to develop more favourable structural relations between the local and the regional, national and international institutional levels. In the selected Communes, we found relatively few *public consultation* processes and their relation with forests was indirect. Otherwise, the urbanization (tertiarization and tourism development) of mountain Communes seems to favour the occurrence of punctual *opposition movements*, as well as of *public animation* types of collective actions.

Chapter VII.

Place and time bound social agency with communal forests

A. Local agency - actors making places 'local'

B. Divergent interests of rural and urban actors - conservation as the core conflict

C. From the common to the communal forest – the State in local forest interactions

A. Local agency - actors making places 'local'

Integrating results from the analyses about perceptions and about social interaction processes, this chapter provides a series of propositions for understanding the particular nature of collective agency processes in relation to communal forests, their capacity in generating forest values and in managing conflicts.

Integrating the results of the analysis about social actors' perceived conflicts and values (Chapter V) with the results on the collective agency processes (Chapter VI), we can now see:

- 1) Which local actors (distinguished by occupation, gender, age, social situation¹⁰⁸) are concerned about which conflicts and values, and engage in which types of local collective agency processes;
- 2) Which types of collective agency processes address (or neglect) which conflicts and values, and in which communal (geographic, socio-economic) contexts.

For all identified examples of collective agency across the six Communes, the following table lists all identified collective agency processes for the six Communes, associates them with the agents leading the process (second column) and the conflicts and values these processes address in particular (i.e. third and fourth columns). The two last columns show the values and the conflicts expressed individually by the actors.

The acronyms used in the second to the fifth columns listing conflicts and values are the following:

Values: **R**esource (Res), **P**atrimony (Pat), **R**ecreation (Rec), **E**nvironment (Env), **P**rotection (against natural risks) (Pro)

Conflicts: **A**griculture (A), **C**onservation (C), **U**rbanization (U), **N**atural **R**isks (NR), **R**ecreation (R), **H**unting (H), **F**orest **M**anagement (FM), **F**orest **E**conomy (FE) and **F**orest **O**peration (FO)

*Comparing the values and the conflicts present or absent in the various collective agency processes, we highlighted in **bold** the conflicts and values addressed by the collective agency process and expressed in the perception analysis. And we highlight in **red** the conflicts and values that are not considered in the agency process but expressed in the perception analysis.*

In parenthesis, in the third column, enumerating the values addressed in each collective agency process, we have identified the main types of agents according to gender [**M**ale or **F**emale], age [**Y**oung, **E**lder], occupation [first (**1s**), second (**2s**) and third sector (**3s**)]. We added an **L** for *Livelihood* and a **Q** for *Quality of Life*, according to what we interpret as being the main function of the collective agency process in question. We added a **R** for the processes which function seems to be more related to *Risk* management.

Following the synthetic presentation of results in table 24, we propose a place-based interpretation on local agency processes in the context of each Commune.

¹⁰⁸ For the social situation of the agents, we distinguish mainly three categories of agents, as developed in the section A of Chapter VI: the municipals, forestry agents and residents.

Table 24: Integrating the collective agency with the perception analyses

Collective agency by Commune France	Agents	Values agents Chapter VI	Conflicts agents Chapter VI	VALUES actors Chapter V	CONFLICTS actors Chapter V
<i>Nancy sur Cluses</i> Wood commission (<i>Commission bois</i>)	Municipal representatives Some local experts Representatives' policy making	Res Pat (E/M/Is) L	FM FE	Pat/Res/Env/ Rec/Pro	A/R/C/H FM/FE/FO
<i>Nancy sur Cluses</i> Voluntary trail making	Residents Common rights and resources management	Rec /Pat (J/M/2s+3s) Q	(FM / FO)	Pat/Res/Env/ Rec/Pro	A/R/C/H (FM)/FE/(FO)
<i>Nancy sur Cluses</i> Opposition to logging a communal tree	Residents school children <i>Self-defined contestation</i>	Pat / (Env) (J+ all) Q	FM	Pat/Res/(Env)/ Rec/Pro	A/R/C/H FM/FE/(FO)
<i>Châtel</i> Pastoral Landowners' Association (<i>Association Foncière Pastorale</i>)	Farmland owners, including the Commune, which holds most decision-making power Representatives' policy making / Common rights and resources management	Res Pat (M/Is) L	Agric. FM / FO U	Pat/Res/Env/ Prot=Rec	A/NR/C=U/R/H FE/FO/FM
<i>Châtel</i> Opposition to the construction of a protection wall	Concerned land owners <i>Self-defined contestation</i>	Pat / Res Env (E/M/I+2s) L	Prot FM	Pat/Res/Env/ Prot=Rec	A/NR/C=U/R/H FE/FO/FM
<i>Châtel</i> Wood Fair (<i>Fête du Bois</i>)	Org: Office of tourism/municip/ONF + assoc Part: all (residents + visitors Public animation	Rec / Res Pat / Env (all) L + Q	()	Pat/Res/Env/ Prot=Rec	A/NR/C=U/R/H FE/FO/FM
<i>Vacheresse</i> Affouage (<i>common right to fuelwood</i>)	Org: Commune / ONF Part: Residents + farmers Common rights and resources management	Res Pat (E/M/I+2s) L	FM FE FO	Res/Pat/Env/ Rec/Pro	A/C/NR/R=U FE/FO/FM
<i>Vacheresse</i> Natural Risks Prevention Plan (<i>Plan de Prévention des Risques naturels prévisibles</i>)	Org: Prefecture and municipality Part: residents Public consultation	Prot (Env) (all) R	NR / U	Res/Pat/(Env)/ Rec/Pro	A/C/NR/R=U FE/FO/FM
<i>Vacheresse</i> Salvage wood (<i>Ventes de chablis</i>)	Org: municipality and ONF Part: residents Common rights and resources management	Res Pat (M/E/I+2s) L	FE FM	Res/Pat/Env/ Rec/Pro	A/C/NR/R=U FE/FO/FM

Collective agency by Commune Switzerland	Agents	Values agents Chap. VI	Conflicts agents Chap. VI	VALUES actors Chap. V	CONFLICTS actors Chap. V
Vollèges Four Banal (Communal bread oven)	Residents + all (3 sector, semi -integrated Common rights and resources management	Pat (M+few F/all ages/3s) Q	()	Pat/Env/Rec/ Res/Pro	C/A/U/R/NR/H FE/FM/FO
Vollèges Bourgeoisie (Assembly of commoners)	Bourgeois Common rights and resources management	Pat / Res (all+M) L	FM FE	Pat/Env/Rec/ Res/Pro	C/A/U/R/NR/H FE/FM/FO
Vollèges Affouage (common right to fuelwood)	Org: Commune/bourgeoisie and Forest Service Part: Bourgeois + Residents Common rights and resources management	Pat Res (E/M/all s.) L + Q	()	Pat/Env/Rec/ Res/Pro	C/A/U/R/NR/H FE/FM/FO
Vollèges Goillys du Lein et des Planches (Pond restauration)	Forest Services, the municipality, the bourgeoisie, the consortage (farmers association) Representatives' policy making	Env / Pat Rec (M+all) Q	A Pro (water)	Pat/Env/Rec/ Res/Pro	C/A/U/R/NR/H FE/FM/FO
Rossinière Nature Label (Creation of a protected area)	Multi-stakeholder representatives Representatives' policy making	Res / Pat Env / Rec (M+F/Y/ 3s.+) Q + L	A C / (H) / (C) / FM	Pat/Res=Env/ Rec/Pro	C/A/H/NR=U/R/ FE/FO/FM
Rossinière Forestry group (Groupement Forestier)	Org: For. Service / municipalities / forest owners / private enterprises Part: land owners + Representatives' policy making	Res / Env (M/Y/Is.+) L	FM FE	Pat/Res=Env/ Rec/Pro	C/A/H/NR=U/R/ FE/FO/FM
Rossinière Opposition to the reintroduction of the lynx	Hunters Farmers Self-defined contestation	Pat / Res (E+Y/M/1+ 2s.) L	A H C	Pat/Res=Env/ Rec/Pro	C/A/H/NR=U/R/ FE/FO/FM
Rossinière Meule à Charbon Charcoal making fair	Org: Office of tourism + assoc. + municipality Part: All (residents, visitors) Public animation	Pat / Rec Res / Env (all) Q	()	Pat/Res=Env/ Rec/Pro	C/A/H/NR=U/R/ FE/FO/FM
Rossinière Self-help after the storm	Residents + local organized groups (municipality, etc.) (self-mobilized spontaneous)	Prot / Res Pat (all) R	()	Pat/Res=Env/ Rec/Pro	C/A/H/NR=U/R/ FE/FO/FM

Leysin Communal Strategic plan (<i>Plan Stratégique</i>)	Org: Municipality Part: residents and public Public consultation	Res / Rec Pat / Env (all) Q + L	R U C	Res/Rec/Pat/ Env/Prot	R/U/C/A/NR/H FE/FO/FM
Leysin Opposition to the construction of a train	Some residents ENGOS Self-defined contestation	Env (all) Q	C / U / R (FM)	Res/Rec/Pat/ Env/Prot	C/A/U/R/NR/H FE/(FM)/FO
Leysin Environmental Commission	Municipal representatives And local residents/experts Representatives' policy making / Self-defined contestation	Env Pat (all) Q	R C U	Res/Rec/Pat/ Env/Prot	C/A/U/R/NR/H FE/FM/FO
Leysin Amodiateurs' rights (<i>Pastoral rights'</i>)	Organ: municipality Part: Farmers Common rights and resources management	Res / Pat (M/Is) L	(FM)	Res/Rec/Pat/ /Prot	C/A/U/R/NR/H FE/FM/FO

Interpreting place-based relations between values, conflicts and local agency

In each Commune we found some relation between the conflicts and the values expressed by various actors interviewed and the type of collective agency we could identify. We will rapidly summarize the nature of these relations for each one of the six Communes studied.

Châtel

It is farmers in Châtel who expressed most agriculture related conflicts in the total sample area and it is in this Commune that we find a dynamic farmland owners' association. There is a high frequency of forestry conflicts in this Commune, with divided perceptions between forestry actors: on one side the State forest agents and on the other, forest workers, forest owners and former communal foresters. The action of forest workers from the private sector is mostly underground and expressed in the conflict around the sanitation of the communal forest above the village heavily damaged by Lothar, and which some consider the municipality and ONF have not properly managed and cleaned over a long time (preceding and following Lothar). Now, residents' general frustration with the local forest economy and forest management crystallizes on the municipality's and ONF's plan to build a protection wall below this damaged communal forest. The ONF service of the 'Restauration des Terrains de Montagnes' (RTM), based on a topographic expertise, estimated that a protection wall was needed in order to prevent logs, rocks and earth from sliding into the village, and that this wall should be built on land that happens to be private forest. While the municipality needs to convince the concerned owners to give part of their forest for this collective protection sake, some refuse, whereas others are more or less ready to consider giving their land - pending on an offer for some compensation that was apparently not yet formulated. Municipals try to minimize the conflict, claiming that it is not an issue but only a conflict which concerns some individual owners'. Interviews show, however, that this conflict feeds on a more general discontent of the local forestry sector (including private forest owners), a sector which has been clearly marginalized from the local economy and communal governance structures. In the past, the communal forest in Châtel played an important role in the local economy. While its revenue and resources helped the Commune investing into the tourism sector, the latter shows now little interest in the forest sector. The intense winter tourism oriented land uses are in the way of timber extraction; loggers expressed particularly high safety concerns. Farmers managed, in contrast to the forest sector, to stay active by organizing their interests (i.e. the Pastoral land owners' association). They have effectively integrated the tourism economy in their own

occupation and livelihoods. However, farmers of Châtel, suffering also from urbanization pressure, shift the land use conflicts more unto the forest sector with whom they are regularly in conflict over the use of pastoral and forestry roads and for the cleaning of forest and bush invading pastures. In fact, the farmers in this Commune have severed their economic ties with forestry work. While in the past they were occupied in forestry work over the winter, farmers now seek seasonal jobs in more lucrative winter tourism related activities. Agents from the office of tourism, however, realize that they need to build partnerships with farmers, as well as with forest related workers, in order to value the local patrimony, which is a key asset to attract tourism. The tourism office is a main organizer, of the Wood Fair (Fête du Bois), with its contests of wood sculpturing and local wood craftsmanship valuing the local forest patrimony for a large public of visitors and residents.

Nancy sur Cluses

In Nancy sur Cluses, it is the great dependency of the Commune on its forest revenue, that historically and still to some extent at present time motivates local actors to organize their interest at the communal level. For this Commune, which had in the past a strongly developed common property regime, it is important to keep an organized communal Wood Commission, for deliberating about and controlling the marketing of the communal timber production and to remain involved in the management of its forests, next to the ONF forest agents. Most residents and their representatives have in memory conflicts with state foresters dating back to the 19th century (1860), when the commoners gave their forest to the Commune and to the management of the administrations Les Eaux et Forêts (preceding ONF). They have not forgotten the state (region) blackmailing the Commune in the sixties into abandoning its important affouage practice, with the threat to refuse its access to subsidies if Nancy sur Cluses did not relinquish these substantial customary rights which were affouages. Interviews show a generational, occupational and gender split among local actors, the elder being attached historically to a strong livelihood oriented perception of the forest and the younger, having a more a quality of life oriented perspective. Several among the younger interviewees expressed their concerns that the development of recreational forest uses is not enough promoted by the municipality, nor by the ONF forestry agents. The young are not engaged in the management of the communal forest. It is likely that the still active municipal wood commission of Nancy (composed of men over sixty years old) will soon loose its dynamism, unless there are some important socio-economic changes endogenous or exogenous to the Commune. There is still an important social capital in organizing collective actions in Nancy sur Cluses and even if these actions are nowadays only very marginally forest-oriented, local actors can effectively mobilize if there is some shared interest, such as for opening a new trail or defending the largest and oldest spruce of the Commune. In both examples, it is the forest management approach which is questioned. The spontaneous collective agency organized with local primary school classes to prevent ONF from logging the oldest and largest spruce of the Commune, is a strong and successful symbolic affirmation of local people valuing their forest as their common local heritage.

Vacheresse

In Vacheresse, the leading conflict is forest economy and the leading forest value is the forest perceived as a resource. It is the farmers, who expressed most forest economy related conflicts. Indeed, part time informal forest work and in particular fuelwood making is a very important activity to farmers in Vacheresse, valuing the Commune's beech forest. The dynamic affouage practice and the communal sales of salvage wood are mostly meant to ease farmers and other residents' access to the Commune's hardwoods and salvage wood, while the high quality softwoods are put on the open market. However, the municipality and ONF have forbidden customary users to sell the fuelwood they have logged from the affouage shares. This restriction is not imposed legally, but results from pressures by regional wood merchants against customary privileges. Farmers, who are also forest owners, keep the fuelwood they got from their affouage lots for their own

household's uses and sell instead fuelwood from their own forests. An elderly practicing affouage for many decades noted that the communal involvement in the management of this customary right has declined, while ONF became a more important player. The interest of the residents in practicing affouage has eroded. This may also be related to the fact that the prices of the affouage lots are relatively high, considering the time needed for logging and preparing the fuelwood. Observing one of the affouage auctions, we interviewed some participants, who said that affouage was no longer a real bargain for them. However, from the analysis of the types of patrimonial values mentioned in the interviews for Vacheresse, we infer that the participants still continue to practice affouage mostly for maintaining the living legacy of local forest related work and know-how, and for not losing their right to access a forest they perceive belongs to them too. In Vacheresse, there are also relatively important operational conflicts between farmers, forest workers (from the public and private sectors) and residents, who are more interested in recreational and landscape values, about the construction, as well as the access, the use and the maintenance of forest or pastoral roads (some of them being subsidized by either pastoral or forestry state agencies). Farmers expressed a relatively high frequency of forest management conflicts too, particularly in relation with a lack of recognition of farmers forest related know-how and with the policing role of the municipality and of the agents of ONF constraining forest uses and timber extraction practices (mostly relatively to the hauling and the stocking of timber on and by forest roads). These conflicts are barely deliberated among right holders in the affouage institution but more so in the municipal wood commission, which is however strongly influenced by ONF management interests. In fact, farmers' interests are little attended by the wood commission, where they are under-represented, even though the wood commission recognizes that farmers are playing an important role in maintaining the communal forest. Indeed, it is mostly local farmers who are willing and capable to do small scale forestry interventions. Small farmers, for instance, remove trees infected with bark-beetle, operations which are not financially interesting for timber merchants and for which the State does barely provide subsidies.

Rossinière

Residents from Rossinière have – compared with the other Communes studied – expressed most forest economy conflicts and the second largest number of forest resource values (after Nancy sur Cluses). The local forest is indeed an important resource to the many local forest-related workers, in particular carpenters and joiners. Corresponding to this high forest interest, Rossinière has also dynamic forest related collective agency processes, such as the Forestry Group (Groupement Forestier), a multiple stakeholder based public-private partnership. The group was initiated by three Communes of the Pays d'Enhaut and is controlled by the district and local forest service agents, but it operates now as a private forest enterprise and addresses economic, operational, as well as management concerns of communal and private forests owners. In fact it is the farmers of Rossinière who expressed most forest economy conflicts (comparing the three sectors' concerns within the Commune and comparing farmers' concerns in forest economy across all six Communes). Interviews show that farmers were until about ten years ago intensively involved in the local forest economy but were then more or less constrained to leave forest occupations, because of the combined effects of both the timber market degradation and state-led forest policies that favor the sectorialization of forestry and farming (forestry professionalization policies becoming even more insistent after Lothar, for controlling risk in then particularly dangerous forestry conditions). The Forestry group tries to mitigate some of these conflicts by not only offering training opportunities to forest professionals, but also by encouraging interested farmers to upgrade their skills and technology, as well as by facilitating their access to communal or private forest lots, by organizing and promoting the local forest market, by valuing the local often high quality timber, considering also its certification. Regarding multiple land uses, Rossinière is the Commune, which in our sample, showed by far the most conservation related conflicts, particularly related to the reintroduction of the lynx and the project of creating a new protected area (a natural

regional park or/and a biosphere reserve). It is mostly primary sector actors, and in particular farmers and hunters, who oppose these projects out of livelihood reasons and because they fear losing control over the territory and becoming more dependent on governmental administrations. Interestingly, Rossinière is also the Commune, which has expressed most environment values and is the place where we found one of the most innovative collaborative policy making process identified in our sample - the Label Nature process - which attempts at integrating local livelihood and conservation interests. Rossinière shows altogether the highest expression of total forest values among all six Communes, with a patrimony value that dominates substantially in comparison with the other five Communes. In this case, we see that both the expressions of conflicts and of values are important, and that this coincides probably not haphazardly with the presence of dynamic collective agency processes. In the case of Rossinière, we saw that it was the presence of active, communicative and socially well integrated state forest agents, as well as personally motivated municipals (entrepreneurs in joinery and carpentry), who were key agents in the organization of forest related collective agency processes. The success of the festive day of the Meule à Charbon (charcoal making pit demonstration) has been mentioned in many interviews. Other public animation and communication initiatives organized by the district and local forest service agents, like forest visits to demonstrate forest management practices producing high quality timber that serve for the manufacturing of wooden musical instruments, have been well publicized in the local media. These actions have increased the popularity of local foresters, as well as generated awareness among a large public about the multiple local forest values. This substantial forest communication and good collaboration between forest service agents and communal representatives are mirrored in relatively low frequency of forest management conflicts for Rossinière (compared with the high number of forest economy and forest operation conflicts found in this Commune). The latter are in great part due to the Commune's important forest sanitation problems (bark beetle invasion) and related reactions to forestry interventions (by some private forest owners and environmental organization's); the infestation being particularly acute due to the great forest damages incurred with the Lothar storm, in 1999. Several actors said that the experience of this storm had substantially enhanced the local community's interest in its forest (i.e. self-help after the storm), that it has invigorated social interactions, as it has changed the Commune's quite exclusively resource oriented-forest perception and management towards a more integrated forestry approach. This change was also in great part motivated by the incentive for the Commune to obtain federal and cantonal subsidies, whose allocation is conditioned upon the development of mountain forestry projects valuing in particular forest protection and conservation services.

Leysin

The highest conflict frequency in Leysin is related to recreation and urbanization issues. In fact Leysin has by far the leading conflict frequency for recreation conflicts out of the six Communes. Recreation conflicts in this context relate in particular to the impact of the skiing tourism on the forest, but also on multiple other recreation related activities. The urbanization conflict relates specifically to the construction of a train line across a - by the local community - informally protected forested mountain area. Several local actors said they oppose this project, but also said that it was not possible to debate about this at the communal level. They counter the project through legal and lobbying pressures, applied by environmental non-governmental organizations, as well as by some governmental political and administrative agents at cantonal and national level. The participation process developed with the Communal Strategic Plan did not directly address this train conflict but succeeded in involving quite actively a good number of local residents in expressing consensus values orienting the future development of the Commune. However, the interviewed actors, who took part in this process, expressed uncertainty in the follow-up and the actual impact of their inputs. The new municipality (elected in 2002) tried to open dialogue between the locally polarized tourism and conservation interest groups, by giving a new chance to a

dormant mixed consultative environment commission. The commission is said “mixed”, because it involves four municipals (elected representatives from the four local political parties) and three residents chosen by the municipality according to their varied competency so that the conservation, tourism and farming interest groups feel represented. However, the municipality controls the agenda (issues addressed) of the ‘consultative’ commission, as well as the final decision-making. While the forest economy is no longer important for the communal revenues (it is in fact about to represent a net cost), communal income resting almost exclusively on tertiary related local economic activities, the few local actors occupied in forestry and farming are worried by the decreasing interest of their municipality in their communal forest, decreasing communal forest investment, decreasing forest related jobs and income raising opportunities and about neglected local forest maintenance. The loosing communal interest in its forest is also illustrated by the municipality’s intention to sell its communal forest domain “Les Charbonnières” located in a nearby Commune. This forest has been badly damaged by Lothar and then by the bark beetle. It is also a disputed territory among multiple users’, including the military, bikers, horse-back riders, mushroom and berry pickers, as well as loggers. Consequently, management costs for “Les Charbonnières” are high, and these are not fully compensated by subsidies, because this forest is not classed as a protection forest. Like in Rossinière, we noted an abdication of the farming sector from communal forestry – and some conflicting positions of the latter vis-à-vis the state forest agency not only for not being enough considered and involved in communal forestry, but also because as private forest owners they perceive little support for their forest maintenance and extraction work. Leysin practices no affouage, no salvage wood customary uses, only some amodiateur right to fencing poles given to farmers renting communal pastures, in exchange of some obligations to maintain the rented land. The farming sector has created a local communal commission; its activity has been mostly organizing access and uses of pastoral and forestry roads. A member notes that, otherwise, collaboration among farmers is not given, as each follows quite individual professional strategies. The primary sector in Leysin feels marginalized in its relation with the tertiary sector. While the municipal responsible for the forest was previously a farmer, presently it is a manager of a large hotel complex. In Leysin, we noticed a gap and even misunderstanding between the primary and the tertiary sector, as well as conflict amongst actors from the tertiary sector, between those who are in favor of a heavy tourism infrastructure development and those who prefer more conservation oriented land uses. Several actors noted decreasing local social interactions, the disappearing practices to meet for informal deliberations in certain cafés at certain times, for solving such problems. All this may explain the noticeably low total forest related value frequency found for Leysin; quite significantly, residents from this Commune expressed the least patrimonial values among all six Communes.

Vollèges

The multiple uses of the forested mountain pastures of Vollèges create some conflicts among agriculture, conservation, recreation and forest related users. However, these pastures with spruce and larch open forest have a high landscape and patrimonial value precisely thanks to the cohabitation of these multiple uses and their integrated management. The common property institution called “la bourgeoisie” owns about all of Vollèges’ forest and this local institution is now in jeopardy, partly because of the lack of forest income. There is little active involvement of local actors in the bourgeoisie (even though about two third of the Communes residents are bourgeois). This local institution predating the constitution of the Commune, has in fact delegated most of its forest management responsibility to the district forest agency. On the other hand, the high patrimonial value expressed by the tertiary sector in particular, mostly by actors working outside the Commune, mirrors residents’ appreciation of the good quality of life they enjoy in this Commune. The local association of Four Bana - a cooperative that owns, restores and uses a common bread oven fired with affouage wood, as well as it animates local festive events - precisely reproduces patrimonial values. We interpret its function as mostly reproducing local consensus

values and serving the social integration and identity demands of residents that have rapidly been changing into an urban, tertiary sector-oriented commuting population. The continuation of the practice of affouage is likewise nurtured by this strong interest in patrimonial values; local actors perceive fuelwood making and the use of fireplaces and ovens for heating and sometimes for cooking, as part of their cultural identity. However, the largely tertiarized residents practicing affouage in Vollèges are not extracting themselves the fuelwood (like in Vacheresse) but it is the forest service that prepares and marks the poles to the names of those who registered and bought their affouage right (at a price below the regular market). A high frequency of conflict concerning urbanization and the development of tourism infrastructures (with nearby Communes that have developed an intense tourism industry) opposes a more urban type of actor to a more rural population that needs to draw its living from the local natural resources. The urban actors are in fact again divided amongst those dependent on the local tourism sector and its further development and those working in other tertiary related activities and enjoying the place more as a residential peri-urban area for which they wish to maintain a rural landscape. While interviews revealed that urbanization and tourism development is an issue to local residents, Vollèges has got no local collective agency process that seems to allow open deliberation for managing this conflict. Several actors mentioned that the Commune was lacking in entrepreneurship, by some illustrated by the aborted project of installing a communal woodfuel heating installation. However, consensus has been reached for building partnerships amongst local institutions (initiated by the forest services, in cooperation with the Commune, the bourgeoisie and an environmental organization) for developing a 'soft' tourism and a 'soft' conservation project. The two collaborative projects – the conservation of the ponds du Lein et des Planches and the installation of the Mine trekking tour (with information boards presenting past mining activities, local pastoral practices and products, local geology and biodiversity). Both projects value in an integrated way the local natural and cultural patrimony.

As shown, the varying socio-economic, geographic and ecological contexts of the communal territories play an important role in determining local conflicts and values, as well as collective agency processes, in relation with the communal forest. It is in the Communes having substantial forest surface and high quality forests, where we found local forestry institutions aimed at keeping some control over the communal forest resource (Rossinière, Nancy sur Cluses and Vacheresse). This confirms our preliminary selection hypothesis that the more communal forest there is, the more likely it is to find some forest related collective actions. More precisely, it is in the Communes depending most on the forest for their revenue, that we found high frequencies of forest economy conflicts, as well as high frequencies for the forest perceived as a resource value. And it is in the same Communes, that we found active forest related forms of communal – municipal led - forest agency (Wood commission, nominated forest municipals, etc.). In contrast, the local actors interviewed in Communes that have developed more mass tourism (Châtel and Leysin) expressed fewer forest economy and management related conflicts. Indeed, actors occupied in the tertiary and in the secondary sectors express in general less forest economy related concerns. In the studied tourism-oriented Communes, forest workers find it difficult to operate (also for security reasons) and feel little supported financially and politically by the municipalities. In fact this perception of being marginalized is justified when considering the relatively low importance given to forest values in these Communes. In these Communes, the primary sector is marginalized from local governance structures and the forest is perceived merely as a background landscape. We notice that the forest is more valued as an "environment" and a "patrimony" in Communes, which are more eco-tourism or soft tourism oriented (Vacheresse, Rossinière and Vollèges).

Interpreting the relations between values, conflicts and local agency across Communes

Forest economy related conflicts were the most often mentioned out of all nine conflict categories and this in all six Communes. This may result from some bias, possibly because we said at the beginning of the interviews that we were conducting a research with a forest economy institute. We opened, however, the interviews to the consideration of all aspects of forest related social interactions, and believe therefore that the expressed concern of alpine forested Communes about the degraded forest economy are quite salient. We distinguished the economic conflicts into different thematic categories: income, investment, subsidies, jobs, global market, local market and multiple forest products' valorization. Forest workers (often part time workers) in all Communes said their economic interests were in conflict with timber interests embedded in the regional and in the global timber markets. In contrast to developing countries' forest economies, the threat for the alpine forest economy is not a depleted or degrading resource but too high extraction and labor costs. The reason why forest economy conflicts are barely addressed in local agency processes could be explained by the fact that local actors' perceive they have no power to influence these unfavorable global and even regional market conditions. However, the local collective agency initiative of the Forestry Group in the Pays d'Enhaut is trying to address these conflicts. But this initiative is to a large extent based on the incentives for the forest owners to obtain - thanks to this organization - an eased access to subsidies. After the completion of the interviews, forest subsidies got seriously hampered in Switzerland, which may jeopardize initiatives such as the Forestry Group or constrain them to changing their strategy.

The capacity of a Commune's collective agency is related with the perceived values of the local actors and to some extent with the perceived conflicts. An analysis of collective agency processes at local levels shows that these processes are mostly focused on patrimonial values and secondarily on resource values (Table 24). These are the same values we found most often mentioned in the actor-based perception analysis (and this for both samples of Swiss and French Communes). However, for the forest economy related conflicts, these were only addressed in five out of the twenty-one collective agency processes we identified. The fact that forest management is more or less directly at stake in about ten collective agency processes may be because forest management, as defined in the conflict analysis, concerns also patrimonial and conservation values or conflicts. Concerning conflicts related to forest operations, inter-communal variations are mostly determined by the co-existence of relatively active agriculture and forestry land uses. It is usually the municipal authorities that manage these conflicts punctually and at an individual level, such as for the often mentioned conflicts about the use and the maintenance of forest and pastoral roads. We conclude that there is a lack of local social capacity for addressing forestry conflicts collectively, and that local actors engage nowadays more often in collective agency for addressing patrimonial and resource related values. The identified collective agency processes in the Swiss Communes more often address environmental values than they do in the French sample. In the Swiss sample environmental values have been mentioned in second position, after patrimonial values (with frequencies similar to resource values), and in terms of multiple land-use conflicts, conservation related conflicts come in the first position.

Indeed, most local collective agency processes identified are not centered on the forest as such – but in relation with other land uses, or for organizing the allocation and distribution of some of its products. In fact, the local forest is mostly perceived as a taken for granted part of the landscape, it is largely an 'unsaid' part of the local place. During our visits to the Communes, the first reaction of the interviewed to questions about their perceptions of their communal forests was often an expression of puzzlement. Some commented: “*we see it every day, we do not see it any more*”, or “*we do not talk about it, but it is part of us*” (R:10). A young interviewee noted that the children most often draw a tree next to the farmhouse - and then a forest in the background, while the

foreground tends to be occupied by cows pasturing. Even though it is the pastoral culture, which is central to the image of the Alps, several interviewed persons reckon that without the forest there would be no farmhouse, no cheese processing on the mountain pastures, etc. In fact, this subconscious awareness of the essential *presence* of the forest is shared among local actors and seems to be part of what they trust as a stable part of their lives: “*the forest is there and it will not change tomorrow*”; it is part of their ontological security. However, if local actors feel this security is threatened, such as after Lothar or in case of an urbanization project which may have an important visible impact, interest for the local forest immediately arises. However, such interest may not be voiced as a movement *for* the forest but *against* the train. For many ‘the forest’ is not ‘an issue’: “*The forest is there, [she] it is beautiful, the forest of Châtel has an exceptional growth, there is no worry (...) Yes, we know that the forest has a protective role, that one should not touch it too much. So, sincerely, it is not an issue. The municipality will not deliberate about ‘what will we do about the forest tomorrow?’*”¹⁰⁹,

Interpreting actor-based relations with local agency: who is in – who is out?

Forestry related collective agency processes tend to exclusively involve forest workers and forest owners (i.e. *Forestry Group* and the *Wood Commissions*). In the Communes studied, there was no formal participation process open to all local actors to deliberate about communal forest management. While the analysis of forestry conflicts shows few perceived conflicts in relation with this lack of opportunities local actors have to take part in communal forestry decisions, results show substantially increased *forest management conflicts* in Communes where there is a deficit in communication and social interactions involving forestry agents, municipals and residents.

Farmers, as well as forest workers, expressed a great number of conflicts related to the forest economy, the former more in Switzerland and the latter more in France. The difference between the Swiss and the French interview samples explains part of this sector-based variation in the expression of conflicts. In France, we interviewed more forest workers from the private sectors (forest, loggers and sawmill workers from private enterprises) than in Switzerland. Actors occupied in the tertiary and in the secondary sectors show fewer concerns in relation with the forest economy. The frequent mentions of conflicts expressed by farmers and forest workers concern also their degrading relationships. They express indeed a growing division between the farming and the forestry sectors, which are in part due to sectoral State policies, (regulations, administrations and subsidy programs), to technological change in forestry (use of heavy machinery, demand for increased lengths of logs etc.), and because the shrinking alpine forest economy is making seasonal logging and forest related work less attractive to farmers than seasonal work in tourism related occupations. These trends are leading to the abandonment of the forest and to the colonization of pastures by regenerating forest. In addition, rapid urbanization in the Alps is encroaching upon forests and farmlands and confining farming and forestry activities into smaller and less accessible places (on slopes), which farmers and forest workers must somehow “share”. While the primary sector is increasingly marginalized from local governance structures, the farming and the forestry sectors are increasingly divided. Indeed, municipalities are also quite fragmented and unable to integrate the interests and the livelihood strategies of both the farming and the forestry related interests in local land-use decision-making processes. In some Communes, it is the farming sector that dominates over the forestry sector, and in others, the reverse.

¹⁰⁹ « *La forêt est là – elle est belle, la forêt de Châtel a une croissance exceptionnelle, il n’y a pas de souci à se faire (...). Oui on sait que la forêt a un rôle protecteur, donc on sait qu’il ne faut pas trop y toucher. Donc sincèrement, elle n’a pas d’enjeu. Le conseil municipal ne va pas mettre en discussion ‘qu’est ce qu’on fait de nos forêts demain ?’* » (C:1)

The local agents' engagement in forest related collective agency processes shows important structural constraints relative to gender and age. We recall that women and the young people mentioned a greater number of forest values than men and the elderly, but that women and the young are substantially less represented in local collective agency processes. Considering gender and patrimonial values, women mentioned a great number of patrimonial values, in particular for the forest as a socialization place – for family, friends etc. For recreation values, women show more interest for the forest as a place for resting and contemplation, as well as for sensory experiences, than men who associated the forest more as a place for practicing sports. In fact, women considered the forest as an interactive place, in social and in natural terms. But the forest values women mentioned most tend to be less recognized by forestry professionals. Few women engage in collectively organized agency processes at local levels. When women get involved in collective agency, it is mostly in processes concerned about patrimonial and environmental values, and in processes of the public animation and self-defined opposition types. These processes are less formally organized, than are representative policy making processes and common property rights types of collective agencies. Likewise confirming the results of the conflict and values analyses, there are more young people involved in collective agency processes focused on recreation, environmental and patrimonial values and in self-mobilized ad-hoc forms of collective agency (i.e. spontaneous community work, citizen contestation). We noticed that the innovative Forestry Group in Rossinière was the only forest-focused collective agency process to involve the young, but this like other more specifically forest related collective agency processes does not involve women.

In the context of this alpine region, now that the mountain forest tends to yield more costs than financial benefits, communal owners are often willing to delegate their forest management responsibility to forest state agencies. This can lead to communication linkages between State forest agencies and owners that are fairly tenuous, leaving the residents very little informed about what is happening in their forests. Some residents do not know that their Commune owns forest and most are unsure about which forests are private and which are communal. Even private forest owners are unsure of their property boundaries. Most residents are unaware that there is a forest management plan for the communal forest; or in Switzerland, forestry projects concerning parts of the communal forest, that are approved and signed by their municipality. Forest related information is rarely published in communal bulletins and is in general not mentioned as a matter of political debate, for example, at elections time. The interviews show that when local actors seek to interact with forest workers, with municipals responsible for the communal forest or with State forest agents, it is not necessarily for participating in forestry decision-making, but because they appreciate being informed.

“The bark beetle, I do not seek to understand whether it is right or not to remove them – I do not know. I asked X (farmer and logger) to explain to me the bark beetle. In the future, what they (the foresters) have to do? I do not have to know it, but if I know it, I am very happy!”¹¹⁰

In fact, social actors prefer obtaining information about the forest through face to face interactions, because such interactions are constitutive of not only the “local forest” but of the “local actor” too (Schneekloth and Shibley: 1995).¹¹¹

¹¹⁰ « Le bostryche, je ne cherche pas à comprendre, si c'est juste ou pas juste de les enlever (...). J'ai demandé à (x) – il m'a expliqué le bostryche. Pour l'avenir ce qu'ils (les forestiers) doivent faire ? Je ne tiens pas à le savoir, mais si je le sais, je suis tout content. » (R : 10)

¹¹¹ Two Swiss surveys (one done in 1978 and one in 1996) confirm that people obtain their forest information mostly from the newspapers and secondly from TV but that they prefer and wish more information received directly from the local foresters (OFEFP, 2000, 119).

Municipals tend not to foster the participation of residents in communal forestry, but rather satisfy the interests of the local actors most in power over local land-uses. In most Communes, the influence of the primary sector in local power structures is declining. The modern trend is then to perceive the communal forest as a public open access resource (a more convenient form of ownership regime for those mostly interested in recreation related forest uses), and to delegate communal forest management to State agents, partly in the hope of obtaining more easily access to subsidies for covering forest maintenance costs.

Even though residents realize they have little influence on local forest management, few expressed frustration about being little involved, except forest workers and forest owners from the private sector in particular. This explains also why there are not more lay people and diverse stakeholders involved in forest related collective agency processes. Several residents not working with the forest said that they would appreciate obtaining more information about the forest. Several added that it is mostly on occasional and informal encounters with the local forest agent, that they would spontaneously ask them questions, but only rarely do they purposively seek to meet or talk with these agents to obtain information. However, when a public issue arises, such as the construction of a mountain train through the communal forest, concerned actors complain that there is no space for dialogue at the communal level, and that they fear local exclusion mechanisms if they voice their opinion in the open. In order to reduce their vulnerability to these local social control and exclusion mechanisms, whenever they oppose such project, opponents organise most often informally at local levels and/or they use extra-communal legal, media and political means of influence.

Exploring the patrimonial and identity meanings of the local forest, we notice the importance of the public animation type of events for local communities to construct and reproduce collective values. Sometimes conflicts at local levels become so intense that the capacity of local actors to interact breaks down, and ritual events or the organization of public animation events can help restore some of this capacity. Several people interviewed in Rossinière said that the Meule à Charbon (charcoal making fair) helped them both, restore social relations after divisive conflicts around the reintroduction of the lynx, and celebrate a restored relationship between the community and its forest environment, after Lothar:

“It is hard, very hard to discuss, very hard, when there are precedents at the local level, yes the people, we, we are very... So, it’s emotional, we can’t, the discussion cannot happen, it’s amazing, it is very very difficult! However, the world of the forest, I would say, it is a world a little apart. The forest is very ecologist for itself, all the forest guards are in love with nature, but we can discuss well – on all sides. On all sides, is the forest federating people? Yes, exactly, we made the charcoal pit, in Rossinière, after Lothar, we organised these charcoal pits, but it was incredible how many people came, incredible! We got weeks of very good weather, everything worked out fine. There, we have seen the attachment of the people for the forest – but it is more an attachment to nature – than to go and say ‘I will do something in the forest’. It is an emotional attachment. It is an emotional attachment, and to the wood and to the craftsmen.”¹¹²

¹¹² (...) C’est très, très dur de discuter, très dur, quand il y a des antécédents au niveau local, oui les gens, nous on est tellement... Si, c’est émotionnel, on n’arrive pas la discussion n’arrive pas à se faire, c’est fou quoi, c’est très très difficile ! Par contre, le monde de la forêt, je dirais, c’est un peu un monde à part. La forêt c’est très écologiste par elle-même, tous les gardes forestiers sont des fous de la nature – mais on arrive bien à discuter – de tous les côtés. De tous les côtés – la forêt, elle est un peu fédératrice ?– Oui exactement – on a fait la meule à charbon, à Rossinière, après Lothar. On a organisé ces meules à charbon, mais incroyable le monde qui est venu, incroyable ! On est tombé sur des semaines magnifiques, il y a tout eu qu’à fait que c’était bien pour. C’est là qu’on a vu l’engouement des gens pour la forêt – mais c’est plus un engouement de la nature – que d’aller dire ‘je vais aller faire quelque chose dans la forêt’. C’est un attachement émotionnel - c’est un attachement émotionnel et puis le bois et l’artisan [R :3]

This citation suggests also that during such public animation events not *all* interpret the forest - where the event *takes place* - in the same way. Even though *all* share a same time and a same space, they don't share quite the same "place", since the meaning of the particular forest they are situated at this particular time of the festive event varies according to where they each come from, what they have experienced in different forests and what they know of different forests. This reminds us of what Giddens calls *modern locales*, when "*locales are thoroughly penetrated by and shaped in terms of social influences quite distant from them*". (1990: 19) In this sense, the very term of "local actor" becomes just as "phantasmagoric" as "local place". Indeed *public animation* processes are open to "all" (as we defined them in chapter VI). In fact, they aim at satisfying an acute modern demand for *social integration*. We could say, as indicated by those interviewed, that such an event does not lead to the construction of a *social action*, with a clear purpose and strategy, but mostly it feeds values by creating the opportunity for creating some shared meaning to a place (be it a common understanding of what is a charcoal making pit, etc.). While such events help in building patrimonial values, essential for personal and collective identities and sustaining interactions between people and their social as well as natural environment, the *public animation* events do not aim at social change. However, even though the aim is to reproduce patrimonial and consensus values, each one of such reproduction processes - in different places and times, with different actors - necessarily modifies the meaning of these values and induces some social change, be it in the quality of the interactions between the people and their environment. In fact, local authorities use these events quite strategically in order to ease local governance from frictions that bring uncertainty in local power relations, relations they wish to control. In this sense, this type of public event serves also some actors to strategically reproduce certain social structures. Some of these events, beyond the reproduction of consensus values, serve commercial (tourism oriented), as well as legitimization purposes (for the actors or authorities organizing them). For Giddens, agency most often does not aim at changing social structures, but merely at reproducing them. Giddens also refers to routine-based structural reproduction, more or less ritualized or traditional practices, which help build a sense of security and trust. In fact, most of these festive events – like *La Fête du Bois* (Châtel) tend to be repeated on a yearly basis and become a ritual. Several interviewed in Rossinière said, it would be nice to repeat the experience of *La Meule à Charbon*. With *Four Banal* (Vollèges), one sees that local actors do invent new social practices, hence new social structures, which they institutionalize and repeat alike traditions. It seems that there is a present trend of institutionalizing new types of public festive events, and creating 'new traditions'.

For Giddens, "*Tradition, in sum, contributes in basic fashion to ontological security in so far as it sustains trust in the continuity of past, present and future, and connects such trust to routinised social practices*"¹¹³ (1990: 105).

Accordingly, we could suggest that local actors' underlying aim in producing and reproducing such local agency processes in form of public animation is to counter-balance some of the anomie effects of modernization, by generating new and repeated opportunities for social integration.

The analysis of collective agency processes and the induced typology does not account for the most frequent and continuous form of social interactions that are largely informal, not organized – involving only two people at a time or spontaneously forming small groups. These *face to face* interactions are often not organized; actors involved are not necessarily aware of a shared purpose. However, these interaction processes aim at social and environmental integration, and it is through interaction that people construct a shared meaning of the social and ecological system in which they are situated. Several interviews referred to the local forest as a place for children to play, and the

¹¹³ *Religion and tradition were always closely linked, and the latter is even more thoroughly undermined than the former by the reflexivity of modern social life, which stands in direct opposition to it*" (Giddens 1990: 109).

games cited were hide and seek (which is *absencing* and *presencing*) or in experimenting senses by covering up eyes to lose a sense of orientation and to experience the touch of the bark of trees. It is also an environment where children explore their fears of - and trust in - their own bodies, through play in social interactions: “*we painted our faces all red with blueberry juice*”¹¹⁴. These values are categorized as *patrimonial values*, because adults – in particular those below forty years old recalling these games in the forest – insisted that the meaning the forest had for them was connected to these childhood memories of social interactions they had among the playmates at some distance from the adult world (but still bound by some rules the children could test under forest cover). These memories of being a child in the forest are often referred to as important to local actors’ identities and to their present binding to the local forest.

B. Divergent interests of rural and urban actors - conservation as the core conflict

Perceptions in values and conflicts varied substantially with the local actors’ main occupation and age. We differentiate accordingly an urban type of actor, who is typically working in the secondary or tertiary sector, corresponding also more to the younger generations, from a rural actor type, who is working in the primary sector (farming or forestry), and is often over forty years old. Even though we did not consider social class as a category differentiating the interviewed actors, in Alpine contexts, the primary sector tends to be economically and politically marginalized in contrast to the tertiary sector. The urban and rural types should not be interpreted as sharply dividing actors, but as distinctions in their expressed perceptions. In fact, the urban influence is important for all actors in the studied area, because many actors in the Alps conduct multiple activities ranging across the three economic sectors (often in seasonal employment). Even the most rural Communes we selected are situated at less than an hour from an urban center, which allows people to seek employment in the city and commute daily. Furthermore, all alpine actors, whatsoever their occupations, are influenced by the same political and cultural structures that are nowadays dominated by the tertiary sector.

There are differences between rural and urban actors in their ways of perceiving and managing conflicts, in their ways of producing and reproducing collective values, as well as in their strategies to take part in communal governance. Considering the results from the entire study area (the six Communes), it became apparent that actors from the tertiary (and secondary) sectors associate more often quality of life functions with the local forest, whereas the actors from the primary (farming and forestry) sectors associate the forest more often with livelihood functions.¹¹⁵ The distinctions between these values are structured, hence instrumentalized, in the modernization ideology, and corresponding power relations – in part internalized by local actors.

Table 25: Perceptions of communal forests by type of actors

Rural Type	Urban Type
A source of livelihood	A source of quality of life
A worked place	A natural space
A common property	A public property

In general, at local levels, in the rural Communes studied, we find slightly more *livelihood*-based interests that are organized in collective agency processes, than there are *quality of life* interests. We note however, some more quality of life oriented collective agency in the Swiss Communes,

¹¹⁴ (V,10)

¹¹⁵ These distinct *rural* and *urban* types and corresponding interests in *livelihood* versus *quality of life* interests correspond more or less to the distinct “use” values (direct, indirect and optional) and “non-use” forest values (existence and bequest or patrimonial values) (Oesten, Roeder 2001: 181)

than in the French, which corroborates the more frequent expression of environmental and recreation values in the Swiss selection. The greater degree of urbanization in the Swiss Communes may explain this difference between the Swiss and French samples.

For the urban actors the *forest* is a natural space, the external boundary to the city, to the urbanization process that needs to be protected from humans, whereas for the rural the forest is constituted by a history of human relations, a worked place, a legacy of ones' ancestors. Actually the word « forest » - forestis in old latin - meant 'outside the enclosure' (Dictionnaire Le Robert, Tome III, 1978). We found that local rural actors working with the forest used more often the term "woods" (bois in French) – i.e. the Wood commission (Commission Bois) in Nancy sur Cluses.

The farming and forestry actors belong in general more to the rural type. However, State forest agents view increasingly the alpine forest with an urban perspective too, and tend to consider the communal forest alike any other type of public propriety. State forest agents, from this more urban perspective, tend also to envision the Alpine forest not quite as 'a natural space' but increasingly as a space which should be managed in ways that 'mimic natural processes'. They also tend nowadays to view the Alpine forest more for its social and environmental services than as a resource generating timber and other forest products, sustaining jobs and revenues.

Conflicts around conservation projects are most visibly opposing the rural to the urban actors and bring these above distinct perceptions to the fore. Table 26 below shows that the urban and the rural types of actors not only have varying perceptions but also different strategies of action.

Table 26: Strategies related with communal forestry by type of actor

The Rural Type	The Urban Type
Conflict managed via face to face, most informal relationships	Conflicts managed via State-led, most formal institutions
Local consensus based decision-making	Lobbying decision-makers above the local level
Autonomy of local right holders	Authority of the State
Solidarity	Integration

We note differences between the first and the third (and secondary sectors) in their ways of managing conflicts, as well as in their strategies to get involved and control communal governance. The rural type of actors, who depend directly on local natural resources for their livelihood, tend to aim their strategies of social interactions at increasing or maintaining their control over the resource, hence their political and economic autonomy regarding the management of these local resources is key. For more urban actors, residing in the Commune but working outside it or/and for the actors working in the tertiary sector, and actors whose family may not originate from the Commune, their strategy when engaging in local collective agency is mostly aimed at enhancing their social integration. The rural actors are boundary keepers an aim at maintaining solidarity within the community, while the urban are more boundary expanders - taking part in wider social relation networks their involvement at local levels aims more at improving their social integration.

The divide between the urban and the rural type is also visible in the variation of the strategies respective actors use to influence decisions impacting on local land uses. Whereas the urban actors tend to use power relations escaping the local institutional control (recourse to national and regional regulations and lobbying), the rural actors tend to interact more through face to face and continuous relationships (often based on kinship across generations), and to negotiate and resolve conflicts

partly informally by building on consensus (politics in the local café, after the mass, at the hairdresser, etc.).

Conflicts between the rural *livelihood* and the urban *quality of life* perspectives are often most acute in conservation related issues; these are conflicts between the primary and tertiary sectors' varied representations of the territory anchored in power relations over who controls local land uses. They involve as shown in the tables above a confrontation between different representations about local social and ecological systems, about how much nature should be left alone or how much humans should intervene, for instance, regarding forests damaged by the bark beetle.

"Bark beetles have always been, yes, at the time of my grand father, it is like mice, one year there are [many], and the next year no more. M. [district forester] says we have to intervene. Then what I think ? In the paper I read the point of M [forest inspector]. And what do you think? I do not know, I would rather think that if there is a balance in nature, fore example, one year the molehills proliferate, the next year it's the fox – maybe with the bark beetle, nature can also regulate it? (...) One is interventionist... they asked my husband to remove a beetled fir on our land. We said we would do it in the Spring. Could you negotiate? No, I understand, if there are important damages".¹¹⁶

This unsecured cultural relation with nature mirrors also rural actors' political perceptions of inequitable power relations that determine who decides about the resources they depend upon. Local resource users feel that their knowledge, skills and institutions are belittled by forest experts, and in general by science, technology and State administrations. They also feel threatened in their future capacity to access – use and manage their local natural resources by the growing influence of non-governmental environmental organizations, which rural actors associate with urban centered interests (Etchelecou, 1991).

Referring to the varying strategies presented in Table 26 above, the tertiary sector actors promoting conservation policies typically refer to Environmental State officers in order to legitimize their preferences. The actors of the primary sector instead refer to a local community of hunters or land users related through informal relationships with and legitimize their position by referring to their own knowledge and their own conservation capacity of the territory. They tend to exclude if not scapegoat urban actors they perceive as intruders who threaten local livelihoods and autonomy. Conservation related conflicts are to a large extent a matter of power relations about who will control the territory and its land uses. For instance, in the conflict about the lynx, the issue was not just about having this new species introduced, about the lynx preying on sheep and deer population and about consequent damages incurred to hunters and farmers, it was also about the State administration that, by introducing this predator, imposed claims on land which the hunters and farmers perceived as their own territory. The conflict is indeed economic, political and cultural - between actors who associate different meanings and values to their natural environment and have different social resources and use different strategies of political influence.

The primary sector, which is as we saw not only marginalized but also rather divided, uses often conservation related conflicts for affirming local group identities and claims in order to better

¹¹⁶ «Du bostryche, il y en a toujours eu ! Eh oui, du temps de mon grand-père. C'est comme les souris, une année il y en a, et l'année d'après plus ». Monsieur X (inspecteur des forêts) explique qu'il faut intervenir. Alors ce que je pense ? Dans le journal j'ai lu la thèse de Monsieur X. Et vous, que pensez-vous ? Je ne sais pas. Je serais plutôt portée à penser que s'il y a un équilibre dans la nature, par exemple une année, les taupinières prolifèrent - et l'année d'après c'est les renards – peut-être qu'avec le bostryche, la nature peut aussi réguler cela ? (...) On est interventionniste.. ils ont demandé à mon mari d'enlever un sapin bostryché chez nous - on a dit qu'on le ferait avant le printemps. Avez vous pu négocier ? Non, je comprends, si on a des dégâts importants... ». (9)

defend its interests. In fact, conservation issues catalyse not only the urban versus rural conflict but also the related periphery-centre and wider modernization or globalization related conflicts. In fact the lynx issue reveals both a territorial (economic and political governance) and an identity (cultural) related conflict: rural actors perceive that urban interests and state agencies impose their environmental policies over their territories, disregarding their sense of place, their ways of life and local governance systems¹¹⁷. The reaction against the lynx reintroduction may be perceived as exaggerated – but it has become a public issue to the extent that about all local actors encountered in Rossinière mentioned it, and that one can hardly depart what is gossip from ‘reality’. Some said that social pressure obliged them to take sides even if they did not wish to or felt torn between contradictory perceptions.

“I am in a very uncomfortable position. My heart is with the farmers and my head for the protection of the fauna. There are some who say that protecting yourself from the lynx is accepting it. What they want here, is clear cut positions, that we kill the lynx! Accepting to take a dog to chase the lynx means accepting the lynx. One to three lynx in the Pays d’Enhaut is acceptable, but more is too much. We have lost sixteen sheep one year!”¹¹⁸

Modernization has weakened local livelihood-centered common property institutions and related social capacity in resolving conflicts and adapting to change. But as modernization causes social anomie and environmental degradation, grow new demands for quality of life and social integration (i.e. modern types of social interaction processes like Four Banal and festive events like the Meule à Charbon). Forest agents are more and more occupied in meeting these latter – mostly tertiary sector oriented – quality of life and social integration demands¹¹⁹.

State agencies by means of subsidies and regulations generate new forms of local collective agency (representative policy making), which try to integrate livelihood with quality of life interests. They involve municipalities and often primary sector actors but are mostly organized at regional levels and their initiative remains mostly in the hands of administrators’ or actors from the tertiary sector (i.e. the Label Nature and Forestry Group processes in Rossinière). The main difficulty of these processes is to engage beyond local representatives, and directly interested stakeholders, less organized local users, residents, workers and small forest owners.

¹¹⁷ The about thousand years long domination of Bern over the area (between 780 and 1798), when Rossinière freed and became a commune of the canton de Vaud, may have contributed to local actors’ strong attachment to autonomy.

¹¹⁸ *Je suis dans une très inconfortable position, mon cœur est avec les agriculteurs et ma tête pour la protection de la faune. Il y en a qui disent que se protéger contre le lynx, c’est l’accepter. Ce qu’ils veulent ici c’est des positions plus tranchées, qu’on tue le lynx. Accepter de prendre un chien pour repousser le lynx c’est accepter le lynx. Un à trois lynx au Pays d’Enhaut, c’est acceptable, mais plus c’est trop. On a une année perdu 16 brebis ! (9)*

¹¹⁹ Clegg (1989) defines *social integration* in terms of “relations of meaning and membership”, which he distinguishes from *system integration*, which relates to the material condition (modes of production).

C. From the commons to the communal forest – the State in local forest interactions

Until the end of the 18th century, the commons occupied the greatest part of many Communes' territory. Even though they enclosed the least productive land, they were often an asset to help people in need, were used in multiple and extensive ways, were maintained through collectively agreed rules and management and responsibilities (Buchecker et al, 1999). As Schuler shows, the Bannwald – protected forest – is mentioned in the oldest Swiss documents (of Guillaume Tell and Schiller) and this several centuries old concept has been used also in the first national forest law of the country (1876). According to A. Schuler, community based management of these Bannwälder, has played an important role in forging the Swiss democratic culture.

“At the same time the Bannwald plays an important role in our democratic tradition, as its existence depends on the will of solidarity for ensuring the common good, which requires the curtailment of the individual free action that is the free use of timber. The definition of the Bann were generally commonly and democratically decided at the municipality, and registered by the communal administration. Characteristic of the weight of these agreements was also the severe punishment against trespassers, including exclusion from land access rights.”

(1987: 1059)¹²⁰

However, A. Schuler says also that these forests were not so numerous and large, nor always that efficiently protected.

The institutionalization of the nation-state precisely rested on the transfer of decision-making power defining and regulating use rights and management responsibilities from the local commons to the national level. And even nowadays the nation-state defends this claim, interestingly in forestry in particular. In France, even though a decentralization law was passed in 1983 to give substantial decision-making power to municipalities in land-use planning, the Forest Code of 1985 still maintained that: *“the politics to enhance the economic, ecological and social values of the forest is the competency of the State”*. Indeed, ONF has the mission to guarantee the respect of the Forest Law (*Régime Forestier*) in all types of public forests. The Federation of French Forest Communes, which exists since 1933, asks that the relationship between Communes owning forests and the national forest agency is no longer one of submission but one of partnership. In fact, the forests owned by Communes are in practice really managed by ONF, and even though municipalities do sign the local forest management plans prepared by ONF, the content of these plans is usually not discussed with the citizens of the Commune. ONF is in a quasi situation of monopoly when it comes to forest management. For the communal forests, ONF may not be the one to execute operations (it may be a municipal employee or a private enterprise), but it has the mission to plan and manage these operations, including the selling of the timber. Based on the interviews, we saw that municipals mostly contested their loss of autonomy in the marketing of the communal timber.

Forest governance structures are less centralized in Switzerland, yet the federal level has mostly the power of forest budget allocation and the cantonal forest services have a large oversight over local forest management: The Federal Law on Forests 1991 (Art. 20) says *“The cantons shall issue the necessary planning and management regulations, taking into account the necessity of sufficient wood supply, the requirement of silviculture based on natural conditions and of the protection of*

¹²⁰ *“Gleichzeitig nimmt der Bannwald auch eine wichtige Stellung in unserer Demokratietradition ein, beruht seine Existenz doch auf dem Willen zur solidarischen Sicherung des gemeinsamen Gutes, die vom einzelnen eine Beschränkung des freien Handelns, konkret der freien Holznutzung verlangte. Die Bannlegungsbeschlüsse wurden in der Regel gemeinsam und demokratisch und den Landsgemeinden gefasst und in die Landrechtssammlungen und Landbücher aufgenommen. Charakteristisch für den Stellenwert sind auch die strengen Strafbestimmungen, die bis zur Landesverweisung reichten. »* (Schuler 1987, p. 1059).

nature and landscape.” In Valais, the cantonal forest policy is to further a greater involvement of forest owners by giving them more management responsibilities, including in the choice and the payment of their forest guard. However, according to a cantonal forester – the interest of the forest owners has not sensibly raised since this new law has been promoted, in 1985. Even when it is the bourgeoisie that engages the local forest guard (working sometimes for two or three bourgeoisies), many interviewees perceive that it is the Canton that has more decision power for the local forest.

With urbanization, increased mobility, mechanization of agriculture and decline in agricultural population, the growth of the secondary and tertiary sectors, local people’s direct involvement in landscape processes has declined. It seems that it is when the forest resources of the studied alpine areas lose their livelihood and subsistence values that local people tend to lose their interest for their forest too. Indeed, nowadays, most Alpine Communes don’t obtain direct economic benefit from their forest. Interviews showed that municipalities are under current conditions satisfied if they can at least keep their forest budgets even. Still, several interviewees said that the communal forests are better maintained and more productive than are the private forests.¹²¹ While many State forest agents during the interviews have complained that municipalities tend not to invest much in their forests, many municipalities complained of the shrinking forest revenue they have had to face over the last two decades. Whereas the State forest services have been promoting multiple use forestry in particular in mountain areas, for the communal forest owners it is difficult to change their perception of the forest from an economic resource to an amenity good requiring mostly investment. This difficulty is not limited to small rural Communes with little income, but holds also for larger Communes, with quite substantial incomes derived from tourism.

We saw that the most often expressed type of conflict was related to the forest economy, but that the capacity of local actors to organize collective agency processes in this respect appears to be limited. Based on our inquiry, we believe that the degraded forest economy situation has several causes besides industrialization (the development of alternative materials), globalization of the market, raising labor costs in industrialized and tertiarized countries. Indeed, the long history of a strong State involvement in local forest resources management has contributed to the erosion of local social resilience in maintaining local forest economy in the face of these largely exogenous problems. The comparative analysis among the Communes shows however that some Communes are more or less resilient in the face of this problem, and that the presence of communal forest institutions, such as a Wood commission or/and engaged municipalities in communal forestry is determinant for maintaining *somehow* the communal forest economy, such as in Vacheresse, Nancy sur Cluses and Rossinière. However, in these three Communes too, we saw that the local forest related institutions are not that robust any longer for various reasons: they often lack close contacts with residents; their participants tend to be marginalized in their municipalities; they have difficulty to keep up with the State forest services and maintain some autonomy in decision-making; they seem to lose forestry competency or knowledge transmission opportunities with younger (more urban) generations. For Switzerland like for France, the local forest guards (or technicians) are increasingly working for several Communes or forest districts. Their management unit reference is not the owner’s. Forest guards are formed in national schools with larger territorial scales of management in mind than the forest owners’. In this larger perspective they are institutionally and even legally inclined to neglect the economic value of alpine forests. This economic neglect is detrimental to the interest of the mountain forest owners. These tend to des-invest from a forest management style that caters to a large public interest in environmental services for which they do not get paid or barely compensated for.

¹²¹ In 1995, over half of the annual earnings from French public forests came from forests owned by Communes (Zingari, 1998).

Significantly, the function of the protection against natural risk is nowadays quite exclusively the matter of federal or State forest agents. In the case of the self-mobilized *opposition against the protection wall* in Châtel, and even in the public consultation for the *Plan for the Protection against Natural Risks* (PPR) in Vacheresse, local actors feel unable to influencing supra-communal administrations and experts, even if there is a formal public consultation procedure. Nevertheless, considering the results of the conflict and value analyses, we see that local actors in the alpine areas studied did not express great concerns about the protection functions of the communal forests. In fact, in Châtel, interviewees expressing their opposition to the construction of the protection wall, were less concerned about how to ensure protection, than about the impact of the wall on their property and on the landscape. And local actors' concerns about the PPR were more about limited urbanization potentials, and loss in property values, than about enhancing the plan's protection effectiveness. The relatively irrational lack of concerns of alpine populations for protection functions could be explained by an essential social and personal trust local people cultivate for mastering their anguishes in front of risk. Even when this trust is shaken by a catastrophe, local actors' social capacity to recover seems quite resilient. Interviews in Rossinière show that the reproduction of consensus values, such as through collective self-help actions and religious or spiritual interpretations of the event, quickly reestablished local actors' trust in their environment. Two years after Lothar had struck severely their forest and living environment, several interviewees said that nature recovered very well. That what looked like "a catastrophe" turned out to be beneficial for local social interactions too: the community had rediscovered local solidarity and reengaged – also with the support of cantonal and federal help – in local forestry. We can refer here to Giddens concept of *ontological security*, which he explains as an essential feeling of trust that the infant learns in order to master one's anguish during the absence of the caretakers (learning to trust that they will return). Giddens shows also that representations of risk have changed with modernization, from a focus on local natural risk to global largely anthropogenic risk (1990, 96-110). Possibly, we can therefore interpret the relatively low protection value local actors associated with the communal forest not as a permanent situation but as the result of a historical perception change. Indeed, local actors' perceptions about the protection role of the local forest and their capacity to organize for mitigating that problem may also have eroded from the time of the Bannwälder, to a nowadays more prevalent perception of the forest associated with a symbol of stability and security, not worth 'worrying about'. An additional element, which may explain the passivity of the municipality in Châtel for deciding on interventions to protect the village from quite imminent log and rock fall, was that it did not want to engage financially. Instead, the municipality wanted the State to subsidy the operations and to take the responsibility of the expertise and the decision, in order not to be liable in case of a difficulty¹²².

Reaching the end of our analysis, we can now evaluate how our data responds to some of A. Poteete and E. Ostrom's indicators of potential emergence and of robustness of local institutions and common property resource management systems (2002), as presented in chapter II. It appears that the studied Alpine forests of our French and Swiss regional sample are in general not responding favorably to most of these indicators:

- Forest resources are not perceived as salient by the residents of the alpine Communes;
- There is relatively little commonality in the perceived forest values among local actors;¹²³
- Discount rates may be relatively high;
- There is relatively little trust building capacity among residents of local communities;
- There is little autonomy granted by State agencies to communal forest owners and users;

¹²² Nathalie Subotsch confirms this latter hypothesis on the basis of her Ph.D thesis on the protection function of alpine forests (1999)

¹²³ However, Poteete and Ostrom (2002) note that heterogeneity in interests and/or cultural references may also bolster cooperation.

- There is prior experience in institutionalizing forest uses at local levels, but young generations loose rapidly that knowledge and the former CPRs institutions tend to erode.

However, there are differences amongst the studied Communes respectively to these indicators: the Communes which have still some primary sector and where the communal forest is still substantially valued in economical and/or patrimonial terms (Rossinière, Vacheresse, Nancy sur Cluses, Vollèges), forest local and common property like institutional capacity is somewhat more robust than it is for the more exclusively tourism oriented Communes (Châtel and Leysin). The few spontaneous and self-mobilized collective actions that proved capable to actually prevent or solve punctual problems by themselves, like voluntary work to open trails, the successful mobilization of local people to oppose the logging of an old communal tree, self help collective action to restore the forest after the storm, were situated in the Communes which have comparatively most common property values and social capacity (Nancy sur Cluses, Rossinière). These differences show that the State forest involvement is not the only determining factor in the erosion of CPRs, but that other local factors must play some role, such as the history of local institutions, the dynamism of the three economic sectors (including the primary -forestry and farming), local governance and entrepreneurship. Indeed, depending on the local economy (main sectors of occupation), we see that the local actors do value more or less the local forest. Furthermore, it seems that the presence of personalities in the Communes who are particularly interested in forestry and capable to communicate their interest is also determining. However, even in the Communes with quite dynamic communal forest related institutions, the network of closely involved persons would not involve more than five to six persons, at most.

A further indicator of local institutional emergence or robustness would be according to Ostrom and Poteete (2002) the 'equitable' distribution of interests of forest values - affecting similarly users with higher economic and political assets. This is not quite verified neither in our cases. As we saw in the previous section analyzing urban versus rural divisions of interests and the continued trend marginalizing the primary sector, we note that the interests in the various 'multiple uses' of mountain forests are not distributed alike amongst all social categories. If indeed forest conservation values and quality of life interests tend to be more voiced by powerful agents, the livelihood interests are more of concern to local actors from the primary sector.

Considering the number of negative answers we can give to Poteete and Ostrom's indicators, should we conclude that our selection of Communes unluckily shows little local forest-related institutional capacity? Or should we conclude that the analysis of Poteete and Ostrom is irrelevant because our regional context is very different from the ones to which they refer in their propositions (mostly rural areas from developing countries)? In the alpine region, if there is forest degradation, it is often not the fact of over-exploitation by local users, but of lack of use or/and of detrimental impacts of human activities that are not related to forest uses (mostly urbanization)? We believe that the erosion of CPRs in our region can to some extent be explained by Ostrom's and Poteete's analytical framework. Indeed, less than a hundred years ago, alpine forests and forest users lived in conditions resembling the contemporaneous rural communities of lower income regions. But nowadays, the mountain forests are no longer a scarce resource upon which local communities depend. While forest professionals and some local users have concerns about the actual state, quality or health of some mountain forests, for protecting settlements and infrastructures from natural risks, for providing a good habitat for certain plant and animal species, to fulfill environmental services (water – soil and climate related) – for leisure, environmental education, etc. these perceptions are not widely shared among local residents. There is in fact little sense of immediate threat or scarcity related to these values and most of all little sense of local autonomy in regulating forest uses in favor of these values. Many residents like to rely on professionals from

forest agencies to take care of these mostly non-use values and are little motivated to invest in local institutions for their stewardship.

The CPRs were built in times when the forest was a place disputed around livelihood-based conflicts. Whereas, in modern times, and in the actual Alpine contexts studied, the nature of conflicts has changed. It is likely that the same CPRs – especially disempowered as they are nowadays - cannot solve these modern types of conflicts, because:

- Pre modern CPRs were local and place-based, whereas nowadays conflicts are mostly about the articulation between the *local* and the *global*;
- The State has monopolized all (structural) power in defining property and access rights in relation with forests at supra-local levels;
- Local livelihoods are only marginally depending on local forest resources, and local actors' interest in autonomous control over these resources is therefore limited;
- The meaning and normative values associated with the former *commons* (sustainable use considering intra and inter-generational solidarity) are in conflict with those of capitalism (a production system aimed at accumulation, where social relations are competitive).

M. Murphee (1993) summarizes quite well the key criteria for dynamic common property regimes. On the basis of his Zimbabwe's Campfire program, he notes that local people to engage and invest in resource management need to perceive that the benefits of their involvement will outweigh the costs. And Murphee identifies a second key element for local people to have an incentive in investing in CPRs:

"The unit of proprietorship should be the unit of production, management and benefit."

(Murphee 1993: 6)

The State has removed from CPRs the power to regulate access and property rights and there is no sign for reversing this situation. Considering that communal owners have barely any rights in controlling access and use of their resources, that their forests managed for multiple uses benefit a much larger public than their local population, that the local market is such that they do longer earn a forest income, one cannot expect from communal owners or commoners like the bourgeois to invest substantially in their forest resources. There is in fact little local resistance against this process, after industrialization, tertiarization and sectorialization. Local actors do nowadays hardly question the delegation of their property management responsibilities to administrative experts. The rare ones who do so are private forest owners. As says a farmer from a Swiss Commune, recognizing the problem with State-led forestry:

*"The forest economy is too much under State control, not dynamic enough, managed by bureaucrats. But for the bark beetle, they are on a war footing!"*¹²⁴

It is also through market policies that the State disempowered CPRs. Forest administrations have turned some customary rights in kind (access rights to timber, fuelwood, etc.) into monetary advantages. The "disembedding" function of money has been argued by Giddens as being key in the process of modernization (1990: 20-27). Indeed, first turning the customary right into a subsidy distributed by administrations was seen as more or less acceptable, but this new practice contributed to sever the ties between the local actors and their forests, so that the State could later abolish more easily this subsidy (as happened in Nancy sur Cluses in the seventies).

Poteete and Ostroms' CPRs theory is mostly based on the observation of local peoples' capacity to self-organize in the face of scarcity and in rural contexts where there is some common representation of 'a place' (some homogeneity in the resource and amongst the users). By contrast,

¹²⁴ « L'économie forestière est trop étatique, pas assez dynamique, gérée par des fonctionnaires. Mais pour le bostryche ils sont d'attaque. » (L, 8)

in the studied Alpine regions, there is no perceived scarcity in relation with the local forest, and common representations of places seem to dissolve. If there is no local institution that defines what is the communal forest then this is no longer one place, but a patchwork of various representations of a place, varying in their boundaries, in their content and in their meanings, according to the actors. We noticed that local people expressed little sense of ownership regarding the communal forest, and that they could often not situate the boundaries of the communal forests. However, they often referred to some particular place(s) they would regularly go to for a certain activity (picking mushrooms, jogging etc).

Without boundaries, there is no “place”. ‘Local actors’ representation of what is “the local” is defined against boundaries that are not necessarily communal, but may follow topographic or water basin limits, religious or village based identities and other historically constructed social boundaries structuring space (Agnew and Corbridge: 1995). Collective agency processes are working with - but also creating new - boundaries, and with it new ‘local’ identities (i.e. *Label Nature* initiative in the Pays d’Enhaut grouping three Communes along the valley of La Sarine). Some collective agency processes have difficulties in raising interest, precisely because they work within boundaries that are not (not yet or no longer) meaningful to populations¹²⁵. With the disappearance of common property regimes like the bourgeoisies in Valais, or of active municipal wood commissions, the common or communal forest boundaries soon erase in local actors’ representations of the territory too.

Indeed, CPRs are to be distinguished from open-access resources, but there is still no need to idealize CPRs and their “place-making” capacity. Place-making always involves the definition of social and territorial boundaries, thus of not only inclusive, but also exclusive interactions. These social group and place-making social interactions depend on social conflict, as we learned from Coser (1956, 1967). Social conflict in pre-modern times CPRs was mostly about the definition of who had the right to do what and when, for ensuring the livelihoods of all the members of the group over time, given a pool of resources. It seems that in modern times the purpose of place-making for sustaining the group’s survival is in great part lost, and that it is only the shared need for social integration that remains, without other common stake. Therefore, the conflict management capacity of CPRs is rendered obsolete, and its function is reduced to creating networks for social interaction (*Four Banal*). Considering Coser’s theory of social conflict, we understand that this is not a sufficient function for sustaining the CPR institutions. Indeed, in this ‘modern’ situation, it is the very purpose of social integration, the definition of the group in contested representations of ‘place’ that becomes the matter of conflict. And disputed definitions of group appurtenance generate social exclusion. It seems that with globalization, social integration needs are augmenting. These very needs put a great pressure on local social interactions, where people meet face to face, and are physically and ecologically constrained to share space and time, whatever varied their cultural representations of the “place” are. In fact, the forest too is both a place of inclusion and a place of exclusion. When we met with women, non-native or lay local actors, they often started by saying they ‘knew little about the communal forest’ and that we should talk to other local actors, whom they perceived *entitled* to talk about the “communal forest”, usually men, over fifty years old. We had to insist and reassure these persons that we were interested in how they perceived the forest and that we were not checking what people knew about the forest but trying to understand what it *means* to them. Through these discussions, we realized that nearly all interviewees had some interaction with the local forest and some opinions about how it is kept or managed. In the situation

¹²⁵ Such as the transboundary initiative Espace Mont Blanc, which aims at elaborating a sustainable development plan in the Swiss, French and Italian Communes surrounding the Mont-Blanc mountain range, including Vollèges.

of selecting interviewees – we had to make a special effort for meeting these in part self-excluded actors.

Indeed, the “local actor” is structured and defined by power relations, and the definition of local actors’ entitlements (rights and responsibilities) change over time as they are always contested.¹²⁶ For instance, we saw how the municipality of Vacheresse regulated affouage rights by defining who can be entitled to enjoy it, deciding that it was to be “*persons (one per household) residing since the 1st of January without discontinuity in the Commune and paying its habitation taxes in the Commune*”. Even though, according to this local rule, relatively new residents, women and non farmers can all take part in affouage¹²⁷, there are in effect only men, mostly farmers, people over fifty years old and people originating from the Commune who take part. In Four Banal, we noted that because membership was related to a property bond, and that traditionally in the region property rights are patrilinear, members are mostly men. These exclusion processes are mostly the result of internalized power relationships, corresponding to the third dimension in Lukes’ power typology (1974).

¹²⁶ So is the concept of *resident* or *inhabitant* changing also in its legal definitions: In France, the Code Civil article 542 gives ‘inhabitants’ the right to use communal land without imposing any particular restrictions. The Code Forestier article L 145-2 specifies “a real and fixed dwelling” in order to enjoy the right to cut firewood. However, the Conseil d’Etat (May 31, 1989), defined as ‘inhabitant’ a person who has a dwelling in her name, whether as owner or tenant, and who lives there permanently or intermittently (Etchelecou, 1991, 307).

¹²⁷ Women running households can formally ask a representative of their choice to register and collect for them the affouage woodlot.

CHAPTER VIII.

Learning about local agency in communal forests

- A. Local agency for meaningful, democratic and sustainable forestry
- B. Limits in the theory, the methodology and the findings
- C. Enabling social agency with communal forests

A. Local agency for meaningful, democratic and sustainable forestry

Critical of the many theoretical models of participation, Claus Johan Lindner proposes a clear analysis of the limits of two main theoretical models – decentralization allowing *direct participation* of the concerned actors (individual and organized) – and *representative participation* of actors who are organized. He evaluates both models on the basis of a list of normative assumptions associated with the effective, generalized and equal access of actors to participation. Effective participation in this perspective means the capacity for all participants to influence the content (formulation of issues, options and solutions) and the process (organization of decision-making) (1990: 16). Lindner notes that the decentralization model is in these terms more effective, especially because the representative model excludes non-organized members and/or organized third parties. He notes, however, that the decentralization mode, giving all concerned actors an equal say, necessitates that the participatory process is of relatively small scale – involves relatively few participants. He notes that the viability of the system is not guaranteed because on the other end, there needs to be a greater State, which would also secure equal participation rights to the individuals and coordinate the various decentralized and autonomous entities. The direct control of this overarching State institution can then – because of scale - not satisfy the participation criteria as set in the decentralized mode (the decision making power of each individual being too small at this mass society scale). The model of the subsystem democratization – based on representative democracy – minimizes some of this scale problem, because it can replicate representation of the various subsystems across the institutional levels, from the bottom-up. But still the system needs the coordination capacity of the State. In fact, for Lindner, the limits of participation theories lie in the feasibility of their practice, given their dependence on the coordination role of the centralized State. Schattschneider seems to agree with this sobering perspective on participation in the context of democratic States:

“Democracy is a competitive political system in which competing leaders and organizations define the alternatives of public policy in such a way that the public can participate in the decision-making process.”(1960: 138).

This definition, says Schattschneider, has the merit to be descriptive, operational, to show what actually happens, rather than be the mirror of the political scientists’ illusions. This is why he conceptualizes citizens or participants in terms of “*semi sovereign people*”.

Participation seems, along this argument, to be always a negotiated power-relation between the State and its subsystems, and every individual citizen. Back to our Alpine Communes, this makes us aware that we chose relatively small Communes and that we did so probably not only for easing field research, but also because we more or less consciously assumed that at this small scale direct participation was more feasible and easier to observe.

We further note that Lindner’s evaluation is based on criteria of *effectiveness* of participation, as viewed from the perspective of the participant. However, the effectiveness criteria are most likely not the same for the agent controlling the participation process. The interest of the latter in a participation process is generally to increase his legitimacy and to gain in permission and support to operate (politically and resource wise – in terms of finances, voluntary labor, associative

commitment, etc.). The tension of power between the State and the Communes is bound to stay. Participation processes organized by State agencies seek generally to increase public awareness of forestry in order to enhance the legitimacy of - and public support to - mainly forestry administrations (FAO/ECE/ILO, 2000). This administrative perspective does not question definitions of access and use rights nor devolve management responsibilities. It aims at advising agencies about how to engage and organize participation processes with a well-defined plan and a clear timing so that the process does less challenge but strengthen existing structures. However, we have seen in our examples of State-led consultation processes (which at the communal level are not even forestry focused), that they are not effectively (in Lindner's terms) enabling local actors' participation, not significantly enabling local actors in solving local conflicts, nor in valuing their social and natural environment.

With decreasing budgets and organizational capacities, administrations have in some countries' forested areas, like in India, devolved forest management to local governments (Panchayats), however the trend was to do this mostly in degraded areas (Poffenberger: 1996, 2000). In some cases, like in Nepal, administrations may devolve natural resource management to primary stakeholders when they are no longer interested in the resource or no longer able to take care of it, but they may readily reclaim control, when it is again in their interest or capacity or when the local institution gains substantial self-governance autonomy (Thomas-Slayter 1994: 1479). Another study in Guatemala showed that decentralization to local government structures may further local elites' power over less privileged local users' whose access to resources may become then even more problematic (Elias and Wittman, in CIFOR, Swiss Intercooperation: 2004). Indeed, some studies show that user-groups' self-governed management systems may be more capable to sustainably meet the needs of the resource poorer actors, when some outsider and the State provide a framework protecting their rights and possibly some logistical support (Nelson and Wright: 1995). However, the same authors warn of outsiders' and State agents' local 'empowerment' interventions, obviously aimed at enhancing local actors' power *to* (enabling power), but inadvertently building social structures which in fact enhance their own power *over* the local actors (id: 10-11). The Conference of the Parties to the Convention on Biological Diversity, in a policy text promoting the ecosystem approach, beware of decentralization without ensuring adequate local capacity building:

“Decentralization of resource management has often been equated to democratizing the process of decision-making and to a broader participation of all stakeholders. This latter does not guarantee the attainment of sustainable use, but certainly increases the likelihood of doing so when all interested parties feel to be part of the decision-making process. However, decentralization is likely to have negative effects if it is not accompanied by proper empowerment, which implies both adequate capacity building and assuming responsibilities. Accountability and transparency in benefit sharing is crucial to the decentralization process and to successfully operationalize the Convention's objectives.”

(UNEP, CBD, 1999)

Michel Crozier envisions pragmatically the role of the State as framing some rules of the game, without which the complexity and uncertainty of social interactions - because of the individuals' margin of free choice, the unintended effects of action and social actors' conflicting values and strategies - would become unmanageable (Crozier and Friedberg 1977: 382 and Crozier 1987:280). It is necessary to be aware of these questions at the conclusion of this thesis for opening the discussion about the implications of its results. However, the present research is not about how local level agency can be better coordinated with participatory forestry at above institutional levels, but it focuses on the understanding of the particularities of local level agency, based on an inter-subjective analysis of local actors' own perspective about their interactions in relation with the communal forest. The findings indicate that - out of the twenty one identified local collective

agency processes - only two have been initiated and imposed from the top by administrations onto local actors at communal level. Indeed, all the other processes are initiated by local actors, but for many in more or less close relation with State agencies from above institutional levels, be it for obtaining financial – technical or institutional support. State agencies seem to offer ready-made structures of *signification*, *domination* and *legitimation* (Giddens's 1981: p.95), which are convenient to local agents too. There is no evidence from the studied cases that this relation with State agents and institutions prevents local actors from changing social structures, nor from enhancing at least to some extent their self-governance capacity. In fact, the *representative policy development* type of processes were more able to address some of the local actors' livelihood concerns – in particular from the primary sector (i.e. *Label Nature*, the *Forestry Group*, the *Pastoral Landowners' Association*) – while integrating quality of life interests too (i.e. by valuing the quality of local products through certification and labeling).

Recalling Giddens' insights on the impacts of modernization on social interactions and identities, the way they infuse “self-reflexivity” at the most local and even intimate level - hampering social trust and identities (1991) - we understand the need for more routinized, informal or ritualized social interactions at local levels. We suggest that not only face to face and relatively continuous interactions amongst local actors are needed in this respect, but that actors need also such interactions with their natural environment, for strengthening both, their social and their ecological integration. The strong expression of patrimonial values related to the local forest and the success of *public animation* events (*La Fête du Bois* and *La Meule à Charbon*) confirm that the local or communal forests can represent meaningful places for actors to produce and reproduce shared values and to construct their personal and collective identities.

The interviewed lay people (not occupied in forest related jobs and decision-making) said often ‘not to know’ and/or ‘not to want to agree or disagree with’ such and such forest related action. Some said they were interested in hearing about the arguments of forest management related debates but did not want to take a position. In this context consultative forms of interactions are not very effective, because people have not yet forged opinions. What the lay actors wish then are opportunities to raise questions and formulate concerns, while listening to and learning from others' too. Local actors willing to get involved in local forestry prefer more informal deliberative¹²⁸ forms of interactions, integrative of local social practices and know-how.

Indeed, Schattschneider bewares of theories of democracy that tend to idealize the role of the public – do not recognize the *don't knows* – their role, their reasons! However, democracy is fundamentally based on the recognition of the *don't know* factor - that “*nobody knows enough to run the government*” – that “*even an expert is a person who chooses to be ignorant about many things so that he may know all about one*” (1975: 133). According to Reich (1985), an administrator too needs to recon that he cannot – however enlightened she is - decide what is best for the people. He cannot simply claim to be capable of maximizing the net public benefit, of balancing demands from diverse interest and pressure groups. Instead public agents should be aware of their own influence on public values and that there may be other values, more or less latent, which less organized and lay actors could express – if given a chance to express and deliberate about their concerns. At local levels, there must be opportunities for informal interactions, also because these are more likely to involve social actors that are less participating in organized forms of collective agency (the young and the women). Furthermore, informal face to face interactions foster social integration and constitute opportunities for actors to make of private conflicts and values shared or public interests. The research shows that the local forester is part of

¹²⁸ “*Deliberation is discourse in which a variety of interpretations, claims, and contentions are debated and discussed within a community of interpretation.*” (M. Shannon, 1999, p. 18)

these place-based informal local networks of interaction and that his / her interactive capacity as “*a street level bureaucrat*” (Jackson: 1997) is key for a dynamic local social agency in communal forestry. The State forest agent cannot claim to be the only forest expert and manager in that place, one person, however professional, cannot comprehend all the complexity and dynamism of the place which has been producing and reproducing historically the forest to ‘manage’ today. As Schneekloth and Shibley (1995) argue:

"Each place only occurs once (...). To act responsibly in that historical moment requires knowledge of that time/place/cultural reality; wisdom to recognize that one never has sufficient information or insight on which to base a 'rational' decision; and courage to proceed anyway" (Id:8).

Local forest agents, as well as municipal representatives, are generally willing to maintain power structures upon which their authority rests, and they fear the emergence of conflicts that may shake these structures and bring in (unpredictable) change. It needs for them some political courage to involve people for expressing these conflicts and for engaging or allowing deliberation. They may be more encouraged to do so, if they recognize that such deliberations can generate values and solutions they cannot foster alone. Results show that the formation of public issues rests on some form of more or less formal or informal collective agency (i.e. the lynx in Rossinière, the protection wall in Châtel, the forest roads in Vacheresse, the mountain train in Leysin). However, we saw the difficulty of representatives to talk about public or emerging public issues in the interviews, and we heard local actors concerns about these conflicts complaining of the lack of opportunities they have to deliberate about them locally. As says Schattschneider: “*The most powerful interests want private settlement.*” (1960: 39)

Indeed, there are strong local structural constraints preventing actors from solving conflicts at local levels. We saw that local social relations tend to be exclusive. Like Giddens, Agnew and Corbridge (1995) question the potential of communitarian relations - limited to interactions of physical proximity and to face to face trust building relations. Sustainable (effective and equitable) social and ecological relations require the adjustment of interactions taking place across various spatial and time scales (Chauvin, 2003). Furthermore, globalization creates conflicts and problems that cannot be solved at local levels only. We saw that this was the impression of many of the interviewees about forest economy related conflicts. However, part of the solution always lies at the local level too, for instance, through the organization of the local-regional timber market and an improved collaboration amongst forest owners, as promoted by the *Forestry Group*, in Pays d’Enhaut. For supporting such local collective agency it is important to deconstruct visions of the *local* as situated at the bottom of hierarchical governance relations. As suggests Margaret Shannon (1999, 2002), envisioning the local place at the center of nested relations, between the macro and the micro sphere of social and ecological relations, is generative of more sustainable interactions across all scales.

Hence, global structures do not necessarily impact negatively on local agency and even on local identity building processes. For instance, the Label Nature group tried by referring to the Biosphere Reserve concept – to engage local actors in defining their local territorial uniqueness and local production qualities. The process of *place-making* rests on people crafting meaning from the clay of situated interactions. The enterprise is difficult (produces conflicts), takes time and much efforts in social interactions, because it entails the social production and structuration of a new place, with new boundaries. It implies therefore not only unveiling more or less unconscious (taken for granted) collective identities but also changing them to some extent.

‘Representative policy-making’ is the type of local collective agency that seems most amenable to structural change and innovation. It is such type of processes that allows local actors to question

and modify the articulation between a defined local 'place' and regional, national and international institutional levels. These processes are often organized at a regional or inter-communal level, a scale at which social interactions are slightly less stressed by In-group (Coser, 1956) dynamics than at the micro (Communal) level. However, these inter-communal processes are still in touch with local social interactions, where people can meet face to face in some continuity. The other types of processes are also needed, such as the citizen's contestation type of self-mobilized collective agency processes, which are precious to air social conflict. Quite differently, the 'common rights and resources management' types of processes are key historical place-making social assets that need to be nurtured, in order to maintain or develop a 'third' type of place – as say Agnew and Corbridge - which is neither defined by the market nor by the State (1995: 227). However, these latter processes built often on pre-industrial social structures need to be adapted and ritualized in new forms for easing the integration of social actors of different origins, occupations, gender and age. The role of 'public animation' types of processes has been clearly demonstrated for their capacity to reproducing shared values, but they also reproduce local social structures (and power relations) and do not enable local actors to deliberate about local conflicts and problems. Finally 'the public consultation' types of processes are needed for the democratic organization of the State – they should include integrated forestry planning processes too (Buttoud, 2000, Finger-Stich 2002). Before achieving effective (generalized and equal) participation in such processes, the present research shows that what is first of all needed is to give a greater role for residents and communal representatives in giving meaning to the local forest, in altogether political, economic and cultural terms.

B. Limits in the theory, the methodology and the findings

Four preliminary assumptions have oriented our research questions:

- 1) The main reason motivating stakeholders to initiate or to get involved in participatory processes are the articulation, the resolution or avoidance of conflicts;
- 2) Stakeholders involved in participatory forestry at local levels integrate forests in the broader landscape and with other land uses and values;
- 3) The management of communal forest tends to be disconnected from policies furthering participation at above institutional levels;
- 4) Social interactions in relation with communal forests and participation in local forest management are more or less formally institutionalized and vary with the actors as well as with the socio-economic and historic conditions of each place.

Summing up what we learned from this research in relation with these assumptions:

- 1) Values and the need to generate shared values is at least as important than the resolution of conflict in motivating local agency;
- 2) The integration of the forest in the local land uses and the landscape is not given in local agency processes. It seems that the sectorialization of land uses and land governance has affected local levels too. However, the types of conflicts concerning local actors in relation with the forest are in great part related with the interface between the forest and non-forest specific issues (urbanization, recreation, conservation).
- 3) The management of communal forests shows no influence – according to by local actors' expressed perceptions – of policies furthering participation in forestry at regional, national or international levels.
- 4) Forest-related local social agency processes vary in their forms and degrees of institutionalisation, some are quite informal and others have a long institutional history but are eroding. Except for one (*Forestry Group*), there are few innovative forms of collective agency processes that specifically concern the management of the communal forest and none that explicitly aims at enhancing residents' participation in communal forestry.

Considering the theoretical perspectives we referred to for defining a conceptual framework for this research and for interpreting then the analytical propositions induced from the interviews and cases, we can now evaluate their respective contributions and limits. Anthony Giddens' agency and structuration theory was helpful for understanding the changing perceptions of the "locale" in the process of modernization and the psycho-social dimensions of ontological security and trust in the construction of personal and collective identities.

Michel Crozier's helped us analyzing why actors, according to their various positions in the social system, have varied perceptions of conflicts and values and therefore also various strategies of involvement in the management of local resources. His insights helped us understanding that conflicts arise also because people have different capacities to use, create or avoid power relations (i.e. the conflict between the urban and rural types).

Lewis Coser's insights helped in analyzing conflicts, their relation with collective agency and social integration, the production and reproduction of social structures that include and exclude actors. His insights helped us understanding the importance of social actors' expression of 'real' conflicts, in order to avoid the perversion of these into more destructive and less solvable conflicts. Coser, however, was not so helpful for making the linkage between the social function of conflicts and that of values. Analyzing the text of the interviews, we noticed that if we focused only on expressed conflicts, we would bracket out a large corpus of data informing us about the nature of social perceptions and relations with the forest. We noticed in particular that it was women, the young and the lay people (working in the third and the secondary sector), who expressed more forest related values than conflicts. We noticed that the expression of a value could mirror a repressed conflict. For instance, an interviewee rather than saying *I find this planted forest too dark*, may say *I like it when the forest is mixed with deciduous trees*.

With Giddens' and Crozier's sociological perspectives we avoided being trapped into a rational model type of decision making analysis, or into institutional determinism. We were situated somehow at mid-distance between an actor-centered behaviorist approach and a structuralist approach. We could agree that institutions or structures constitute actors, that they empower them as well as they constrain them (DiMaggio and Power: 1991). We did, however, not find in our reading of Giddens the theoretical tools for distinguishing individual from collective forms of agency. And while Crozier gave methodological tools to analyze organizations – especially professional organizations and administrations - the explanation of processes through which collective goals and strategies are formed in more loosely, informally and voluntarily organized forms of local networks and organizations was not given. It is thanks to the Grounded theory approach (Glaser et al: 1967, 1992) that we did not loose track. By remaining systematic in the descriptive and comparative analysis of the data, we built our concept and typology of collective agency processes.

We found that both, Giddens and Crozier, were mostly positive about power relations, insisting on the enabling aspect of power and less so on how the agents (actors in a situation of social action) worked with domination (power over), and even less with the third dimensions of Lukes' power: the oppressive forms of power, internalised and reproduced by the dominated actors themselves. We found that the third dimension was quite visible in local exclusion mechanisms. A further limit to the theories informing this research was that even though we wanted to open our analysis to ecological and cultural dimensions, we could hardly do it on the basis of Giddens' and Crozier's sociological insights.

Considering our original question, raised in the earlier discussion on theory (Chapter II), about how much agency is determined by social structures or by the actors' personal initiative, we found that actor-based features of occupation, age and gender determine to a quite great extent their involvement in forest related local collective agency processes. But these features are structural too and a person still has some margin of freedom in deciding how to act. But how can we estimate the weight of the agent's margin of freedom in the factors influencing agency? Estimating this weight would require a very close analysis of the social interaction systems and of the situation of the actor in the considered system, like Crozier did in tedious analyses of organizations, of their structures and power relations, as well as the alternative options agents have in defining their strategies. Given the scale of the sample of cases - six Communes, twenty-one collective agency processes - we could not go as far as estimating what were the alternative options the various actors taking part in the processes could have. We only studied what type of actors is taking part in what process, why and how, but not how they could have done otherwise. Indeed, if agency is - as says Giddens - "the power to do otherwise", we can probably only estimate the contours of this margin of freedom, in the shadow of the results of our analysis, maybe in the actual absence of relation between the structural features of the actors engaged and the values and conflicts expressed in the collective agency processes, and the absence of relation between the contextual variables and the presence of certain types of collective agency processes. Still in social sciences we cannot work in a laboratory and cannot isolate variables in order to determine precisely their particular influence on social phenomena. Here we are quite helpless and can just agree with Colin Hay (1995) saying that all social theory is based on its author's personal (normative and political) preference for either actor-based or more structural types of factors explaining social processes. Still, what we retained from the agency-based theoretical approach is that we built our analysis of local agency in communal forests via the actors' own expression of how he/she perceives the communal forests' values and conflicts and how she/he interacts with others in relation with this communal forest. With the interviews we made, like says Crozier, a 'detour' to the individual actor, for understanding the nature of inter-subjective relationships. Indeed, the categories of values and conflicts were crystallized out of the systematic and comparative text analysis of the interviews. They are therefore the result of an inter-subjective analysis - which is probably as close as one can get to an "objective" definition of conflicts and values¹²⁹.

Asking the questions of 'who takes part, who initiates and who controls the process' relates to the question of 'who decides'. We used the term of 'agency' for social interactions oriented towards a goal and entailing a strategy of action and the concept of "collective agency" when several actors shared some goals and strategies. Collective agency therefore presupposes some deliberation and agreement among participants in order to decide about what these common goals and strategies should be. We used the term of "collective agency processes" instead of "participation" because the latter assumes a borderline between forestry and the lay - between those considered outside or inside - between those considered decision-makers and those considered participants (Buttoud, Yunusova: 2000). At local levels, the border lines between the inside and outside forestry, the decision-maker and the administered - between the manager and the user are not given, and shift from place to place and over time. In some Communes, municipalities and some residents are considered as communal forest managers¹³⁰, whereas in others, this role is perceived as being mostly the one of the State forest service alone.

¹²⁹ Concerning values, the neoclassical economy recognizes that values are based on the subjective perception of the use of a good to satisfy one's needs. Oesten, and Roeder (2001: 177)

¹³⁰ For Oesten and Roeder "*Management ist die zielorientierte Gestaltung, Steuerung und Entwicklung des Forstbetriebes (...)*". "*Management is a purposeful organization, direction and development of the communal forest enterprise.*" (2001: 47)

Some cultural aspects - specific to the places and the actors studied - emerged thanks to the open interviewing methods and to the grounded theory approach. A social anthropology approach would have requested fewer, more focused, and longer-term case studies. However, out of the analysis of values, the *patrimonial* category, which was most frequently expressed in four out of six Communes, emerged the important cultural signification of forests. However, by breaking down the patrimonial values into various thematic subcategories and by comparing results across Communes, appears a large variation in the different meanings associated with the forest valued as 'a patrimony'. For example, some Communes valued considerably the forest for its contribution to the local architectural patrimony, while local actors from other Communes insisted more on the forest perceived as a living legacy of the work and know-how of their ancestors. The cultural meaning of the local forest was also revealed through field observation, names of places, local art, symbols used for local flags etc. The relative responsiveness of local actors in opening the door and in engaging in the interview (also with their time) was an indication of the importance of the forest in the local culture too. However, restricting our analysis to text analysis, these field observations served to sharpen our inquiry but did not enter directly in the corpus of the data. The cultural aspects of our findings need further research in particular about how social integration and ecosystemic integration are related. We need also to explore more the tension between the - with urbanization increasing - demand from local actors for social integration and the fact that, at local level, there are strong social exclusion mechanisms (due to In-group effects of social conflicts). We should also look more into how 'heterogeneity in interests' - or diversity in socio-cultural references - can "bolster cooperation" (Poteete and Ostrom: 2002).

Regarding the ecological aspects, we covered them only by the side. To study how local actors' perceptions and social interactions actually impact on and adapt to the dynamics of local forest ecosystems would require more focused research, based on fewer and smaller territorial samples, defined according to ecosystem-based rather than administrative boundaries. However, the study informs us about local actors' perceptions of the forest as an *environmental value*. Among the four thematic sub-categories of: (1) *provision of health, clean water and fresh air*; (2) *landscape*; (3) *habitat for wildlife*, and (4) *place for nature observation*, it is the habitat value that has been most mentioned, considering responses for all six Communes. Interestingly, it is in the Communes, which have collective agency promoting protected areas, that we have the highest frequencies of environmental values and of the habitat value in particular. The habitat value is interestingly also often expressed by hunters. In fact, it is in the Communes showing most appreciation for environmental values that we found the strongest perception of environmental conflicts too (i.e. Rossinière). This intensity and polarization effect may indicate that the environmental conflict is a core conflict, in Coser's terms. And that indeed it is very difficult to solve such conflict at local levels, where social collective interactions develop often an In-group type of behavior.

Concerning the methodology, we can identify strengths and weaknesses in the sampling of the cases and the informants, with the interviewing methods, and with the grounded theory based approach used for the qualitative analysis of the qualitative interviews. The results drawn from the sample of six Communes show patterns of relations between contextual variables and local actors' perceptions of - and interactions with - the communal forest. The contextual variables structuring the patterns of our results are:

- The importance of the communal forest (coverage, productivity and quality)
- Territorial and governance situation (communal, regional and national)
- The local economy (main sectors of activity, main sources of income)
- The presence and relations between various categories of actors (occupation, gender, age)

Some of these patterns of variation and constancy are the following. The importance of forest economy conflicts is quite constant between the Communes, and particularly marked in the

Communes where the primary sector is still important, or where the forest income remains of importance in the communal budget. The more variable results – tributary of the socio-economic context of each Commune - are multiple land use conflicts and also operational forest conflicts, and to a lesser extent forest management conflicts. Concerning values, the patrimonial and resource values are in all Communes expressed as the first or second most important (except for Leysin which has a low patrimonial value), while recreation, environment and protection values change more according to the Commune. Given the variability of results for the analyses on values and conflicts between the Communes, we conclude that the mean results on a country base or for the full sample of the six Communes should not be used to predict conflicts and values in other Communes. Rather, we suggest that our research provides an analytical framework, which shows relations between social structures, local actors' perceptions and local agency processes that involve local actors in relation with their communal forest. It is this analytical framework that can be used to test and to challenge our concluding propositions on other cases and to possibly generate new propositions.

However our results - based on the study of six Communes – indicate trends that apply to some extent to the broader region of the French and Swiss Alps considered. Indeed, we conducted a good number of border sampling interviews in Communes situated in the first selection of 79 Communes. In addition to the 65 interviews for the six core sample Communes, we interviewed 10 local foresters working in other twelve Communes (part of the second selection processes). And, because we first wanted to work on eight case studies, before choosing to focus on six Communes, we had already conducted twenty interviews with inhabitants of les Houches in Haute-Savoie and in Vernayaz, in the canton of Valais. Both these latter Communes were more urban and situated closer to the valleys than the Communes of the final sample. Based on all these additional border-sample interviews (raising the total number of interviews from 65 to 100), we could estimate the general relevance of our propositions. It appeared then that in more urban and valley based geographic settings, the conservation, patrimonial and recreation values tend to be higher, the urbanization related conflicts more intense, while the forest resource values and forest economy conflicts are less important than in the forested mountain Communes of the final sample. For the types of collective agency processes – they seem not different in nature – so that our typology could also be applied in their settings – but the relative importance of one type over the other is likely to differ. For instance, our analysis shows that urbanization tends to augment the occurrence of *citizen contestation* types of collective agency, as well as of *public consultation* and representative policy development types of processes, but less so of '*common rights and resource management*' institutions.

The results based on the comparison between the Swiss and the French samples (of each three Communes which vary in the relative importance of the first, secondary and tertiary sectors), are not representative for these entire countries, but only and to some extent for the Alpine region in these countries. In fact – by taking a local focus and by varying the institutional, socio-economic and geographical (including demographical) contexts between the selected Communes, and by selecting interviewees among actors that varied in their occupation, gender, age and social situation, we aimed at highlighting the place and actor based specificity and variability of perceptions and of interactions in relation with communal forestry. Furthermore, the samples are not quite comparable across countries. In France, we interviewed more actors from the primary sector than in Switzerland, and the tertiary sector is more represented in the Swiss sample. However, this represents also a socio-economic difference between the Swiss and the French regions studied. Indeed, the Swiss region is more urbanized and has a stronger tertiary sector. While, in Haute-Savoie, we have interviewed more forest workers, this sector is also more important in the French than in the studied Swiss region. The related sampling variations, as well as the statistically demonstrated regional difference in the relative importance of the sectors of

occupation, explain in part why multiple use conflicts are more numerous in the Swiss sample, than in the French. Likewise, these differences explain in part why we have more forest-related conflicts in the French than in the Swiss Communes. We have chosen a transboundary region in order to better compare between our case studies the effects of extra-municipal institutional variability on forest-related local social interactions. Results indicate different forest management styles according to these respective countries' forest administrations. For instance, there were more forest management conflicts in the French sample, than there were in the Swiss. We interpret these results in relation with the more centralized forest management style of the French forest administration (ONF), compared with the management style of the Swiss forest administrations, mostly directed at the cantonal level. These various administrative 'styles' have historically structured the relation between the collective communal owners and their forests. In France, forest management conflicts were mostly perceived in terms of communication problems, between State forest agents, communal representatives, residents and other users.

The variations across Communes in the size of the samples of categories of informants, according to their occupation, age and gender is due to the snow-ball sampling method. Conducting this method, we started with a first interview with the local forester, whom we asked for further contacts of people he thought could give us some time to talk about the communal forest. Because this method led us mostly to men and to men of more than forty years, we added a selection of actors whom we randomly met in the field while trying to meet the social categories least represented with the first snow-ball sampling methods. We could by this means include women, younger actors and lay people (not working directly with the forest). We also oriented the snow-ball sampling by explicitly asking for names of farmers, municipals, members or presidents of local associations, in order to ensure that we had insights from the diverse local user groups and communal organizations.

It was helpful to (semi) structure the interviews by presenting a guide at the beginning of the session for inviting the informant to cover a wide array of themes. The guide helped building trust – removing the fears of the informant, who felt unsure of her/his engagement in an unusual interaction with an unknown person. The loosely structured interview guide allowed us to adapt the questions according to the informant, the situation in which we encountered him/her, and the interviewing process. In order not to bias the data, we tried to be constant in asking few questions, general and open questions, and more or less similar questions amongst the various informants. The interview guide was helpful for organizing the data into thematic categories and eased the comparative text analysis of the interviews. The fact that the interviews were qualitative, semi-structured but open was clearly appreciated by the informants. Many said - and most showed by their willingness to speak - that they perceived the interview as a privileged social interaction moment, as an opportunity to reflect upon the meaning the local forest and the local place had to them. They often expressed ideas they said not being aware of before the interview, because they took the local forest and related interactions for granted. Asking me at the end of the interview what was my question of research, one informant said: *"It is a nice subject, but this is so much part of our landscape!"*¹³¹.

Compared with large-scale surveys, based on written questionnaires (with closed and semi-open questions) for taking a census of people's opinions, our qualitative open interviewing method allows to understand more how people construct the meaning of the forest in interaction, the interview being a social interaction in itself. It helps understanding not only *what* people think but also *why* they think like this. It allows situating the data obtained from the informant in a place based context – therefore not only to interpret individual and subjective perceptions but also inter-

¹³¹

« C'est un joli sujet, mais cela fait tellement partie de notre paysage ! » (C:1)

subjective and collective perceptions situated in precise contexts. It helps finally to understand this very subtle passage from *thinking to doing* from *perception to interaction*.

Indeed, the interview is a specific “behavioural setting”, which may yield quite different data, according to many intervening situational variables (Patton, 1990, 202). While taking note of these settings, we chose, however, to construct our categories of analysis quite exclusively on text data drawn from the interview. The interviews were indeed transcribed as close as possible by using the actual words of the interviewees, as collected by taking careful notes and by taping. As we used a method of interview in which questions were adaptable to each interview, we were sensitive when formulating these questions to the informants’ silences, hesitations and malaise, which were indicative of conflict. We came then possibly back later in the interview to these grey zones, if trust had built up, formulating the question in a different way. In fact, the observation of the informant’s behaviour - body language and his or her time availability in the interview - give all important indications about a person’s perceptions in relation with the subject matter. In general, we avoided the use of general theoretical concepts, such as ‘participation’, and even words like ‘users’ did not help the flow of the interview:

Do you meet other users in the forest? *“This term ‘user’ disturbs me a little, there are walkers we meet on the trails. We cannot say that we are disturbed by others.”*¹³²

The strengths and limits of our findings are also related to the method we adopted for the data analysis. As we used a Grounded theory approach, we departed from the text of the interviews and built up – by a systematic comparative text analysis – thematic sub-categories and by comparing these we grouped them into larger categories. For each interview we coded the passages of text that were in relation to these thematic sub-categories and categories, refining their definition in the process. The categories are not interpretative but descriptive. For instance, we coded the presence of a *conflict* under the thematic sub-category ‘forest invading pastures’, when the informant *said*, for example, that she perceived a conflict in relation with other people not keeping the forest from growing into the pastures. We did not code this text as a ‘conflict’ when an informant said, for instance, ‘I was working all day in my pasture to remove bush and trees’, without further explicit mention of a disagreement with somebody else about this matter. Because we built the categories on the basis of sub-categories defined on the ground of the data collected and organized by Commune and by interviewee and because we documented all these category-building steps, the final (interpretative) propositions of this research can be challenged on the basis of another possible analysis of the primary descriptive results – or even of the interview texts¹³³.

C. Enabling social agency with communal forests

While it seems that there is a consensus on the general principles of sustainable forest management - and the related need for enhanced participation of local communities in particular – this research shows that even in the countries promoting most actively these policies at the international levels, the ground level reality is quite different. For Peter Glück, the national, regional and international initiatives focusing on special silvicultural technical and infrastructural measures – requiring all additional funding for extension services and incentives - have not solved the problems of mountain forest management and had limited effects because they *“neither sufficiently consider the interests of the forest owners nor the beneficiaries”* (Glück, 2002: 127). In order to foster local level

¹³² Vous rencontrez d’autres utilisateurs en forêt ? « *Ce terme « utilisateur » me dérange un peu, ce sont des « promeneurs » qu’on rencontre sur les sentiers. On ne peut pas dire que l’on est dérangé par d’autres.* » (C :1)

¹³³ i.e. Chapter V and Appendix – conflict and value tables by Commune, Tables 13-19 in Chapter VI describing the twenty one collective agency processes.

participation, we need first to know *who* are the local agents, their interests or perceived values and conflicts, and their local social and institutional capacities for participating. To conclude, the following section presents sixteen propositions of lessons learned from the research for all who take part in forest management and all who wish to enable local agency in forestry in general, and in communal forestry in particular.

1) Integrating livelihood and quality of life interests

Perceptions of forest conflicts and values vary between actors of more or less rural or urban origin and activity. Urban and rural actors use also various strategies to influence local decisions and practices. Rural actors have more livelihood related interests, whereas urban actors have more quality of life interests. The challenge is to foster participation processes capable to integrate livelihood and quality of life interests, to organize collective agency processes, which both types of actors trust and engage in.

2) Fostering the interaction and integration between farming and forestry sectors

There is an important conflict within the primary sector between farmers and forest workers, since their activities are no longer integrated as they were in the past, but there is still a proximity in their land uses, the sharing of access roads being one of the main issue of conflict. The conflict is both economic and political; it divides also private owners from public or communal forest owners. The former being situated in a less advantageous power relation, having more limited access to subsidies, and more difficulty extracting and selling their timber in current market conditions. The comparative study between the Communes shows that farmers and forest workers are more or less advantageously represented in local governance structures and encouraged in their activity by the municipalities. In all Communes there is a need to foster participation processes capable to involve and benefit actors from both sectors', such as, for instance, affouage, or labelling of local products to value both, farming and forestry products.

3) Improving communication and transparency about communal forestry

Results show differentiated appreciations among non-forestry actors about where forestry decisions are mostly taken: some estimate that most decision-making power lies with the owner, others with local, regional or national forestry agents. The lack of transparency in where decisions are taken creates zones of incertitude that are strategically used by the actors most directly involved in forest administrations at the various decision-making levels, including by the Communal agents. Usually it is a group of about three municipals at most, whom share with the local forest agents and possibly one resident considered for his expertise, the Communal forestry decision-making power. In some Communes, residents know and name the municipal(s) in charge of forest questions, in others not. We saw only men in this function and most often, over fifteen years old. In some Communes, *forest management* types of conflicts were mostly expressed by the young and women, who are generally excluded from communal forestry. There is little communication between municipals and local residents; communal forestry matters are rarely presented in communal bulletins, or discussed during election times. When municipals are consulted, for instance in the preparation of the communal forest management plan, residents are generally not informed. If a larger number of local actors – considered as lay or less directly involved in forestry - are to participate in forestry decisions, local forestry decision-making needs to become more transparent and local forestry information communicated to local users and residents.

4) Engaging continuous interactions between forest agents and local representatives

Municipals interviewed often expressed a wish for more information and better consideration from the forest services of their own marketing and management preferences. Control on the marketing of the communal timber and on the communal forest budget is the most important concerns of communal representatives, more than are forest management and operation matters. Farmers and forest workers do also more often complain about too limited influence in forestry decisions, more than do actors working in services and industries and depending less immediately for their livelihood on the forest resource. These results indicate that it is important that forest agencies foster communication and the continuous involvement of municipals and other representatives of local user groups with forest related livelihood concerns and/or with local governance responsibilities. Comparing our cases, we saw that communal engagement in communal forestry today rests on the presence of few personally motivated and knowledgeable local actors and municipal representatives. It is key that local forest agents know to maintain good relationships with these persons and that the engagement of municipals engaged in communal forestry gets also politically more valued towards local constituencies. It is important that the population knows who these communal forest representatives are, so that they can interact both, with the forest agent and their communal representatives about local forests and communal forestry.

5) Fostering interactions that help lay actors forge their interests in the communal forest

Local actors, who are not occupied in the primary sector, and are not municipals, said often that they “*don’t know*” much about the local forest. However, as the interview evolves, they construct and express their opinions and become more aware of their interests. These actors ask often for *being* informed but show that they do rarely seek actively the information, many are prudent in taking sides relatively to local issues and do not explicitly ask for being involved in decision-making. For these actors it is particularly important to increase forestry communication, prior to involving them in participation processes. When participation processes concerning forests are then to involve these non-organized more quality of life oriented actors, with few a-priori defined interests, these processes should be framed so as to enable social interactions that help the lay to become aware of forest values and conflicts, to forge their interests and define the issues they are concerned about.

6) Valuing local foresters’ key roles as brokers and boundary watchers

In the context of increased bureaucratisation and subsidy-led forestry, local forest agents play both, a key role of brokers between the local and all the above institutional levels and a key role of stimulating local actors’ engagement and investment for their forests. Indeed it is the local forest agents who help Communes to watch and maintain their forest resource, their property boundaries and to defend their interests in the context of larger institutional dynamics. For playing this important social role, local forest agents need to be locally well integrated and recognized by local actors. Trust in general, rests on mutual recognition of respective preferences and know-how among all actors. Building trust with local actors and forest owners in particular is a condition to local state forest agents’ ability to operate effectively, and the research shows that, at local levels, trust requires regular face-to-face and to a large extent informal interactions. The central role of the local forest agents needs to be valued and supported by all sides, the local users and residents, the communal representatives and the forestry administrations.

7) Placing the local forest agent at the center of forestry administration’s attention

Interviews show that most local actors appreciate having access to a local forester acting as a contact person they trust for his/her competency and discretion: a person to whom they can informally ask questions and express concerns. In Communes where interviews revealed a good local forestry communication (through the media, forest visits and festive events related with the

forest), we found also among all types of actors residing and/or working in these Communes a relatively strong expression of local forest values and a relatively low frequency of forest management conflicts. This communicative capacity rests mostly on the local forest agent's personal initiative and is relatively little supported (with training, status and retribution) by forestry administrations. Historically, the strategy of forest services is to control - more than to involve - local actors and this even more so in mountain forestry, where protection and now biodiversity concerns are high. Development of participatory forestry at local levels requires structural changes within forestry organizations. However, these will be difficult to implement, because it contradicts hierarchically structured power relations, maintained by national, regional and district level forest administrators over the local forest agents. Local forest agents should not be situated hierarchically at the bottom – but be at the centre of their organization's attention, because he/she is where policy and action integrate, where the forest, the people and the managers meet.

8) *Combining cultural and political participation approaches*

While the livelihood interests related to the communal forest have decreased in Alpine contexts, local political interest in influencing or controlling decision making over the use and management of these resources has eroded on the part of forest owners too. Therefore, a political approach to participation at local levels – focusing on local actors' involvement in forestry decision-making - raises limited interest among local actors. Fostering social interactions that speak to the patrimonial values - hence the collective and personal identity-related meanings of forests to local actors - are likely to draw a larger public. However, both types of participation – the political and the cultural are needed: the former interests the more organized stakeholders (forest workers, tourism professionals, conservation organizations, certain recreational groups, like hunters, sport clubs), and the latter attracts a larger public, including non-organized actors among the resident and visiting population. The fostering of a cultural approach to participation entails a more outgoing attitude of forest professionals in general, which is often not given to them, whether they work in a public, private or communal organizational context. While the cultural approach gains by being particularly developed at the very local level, the level of action most meaningful to the local actors needs to be defined and may not be typically the communal level. More political forms of participation in forestry may gain in encompassing larger and more ecosystem-based territorial units, however, the Communes - as actors and as institutions (organizing rights and responsibilities) - need to be part of these larger processes too. Political participation processes are likely to be more effective if there is local cultural participation, because they will benefit from a more enabling social system, where forest values and local conflict resolution capacities are enhanced.

9) *Nurturing the identity building values of the local forest*

Interviewed actors, in particular the below forty years old, expressed often spontaneously childhood memories when asked about their relation to the communal forest: of games they played with other children in or at the forest edge, etc. The nearby forest in these “games” is both a place where the children are confronted to rules (about what they are allowed to do and not) and a place where they are freed from the close supervision of the authority (parents, teachers, etc.); the forest is in fact a place where they have also the choice *to do otherwise*. All having the same rights to access the communal forest, it probably plays an important social integration role across social categories; it allows the constitution of an ‘us’ – of all those who share a same place. These results show the importance communal forests play in personal and collective identity building processes. Local actors' emotional involvement in relation with communal forests draws a lot on this identity related meaning, as show the often mentioned patrimonial values. Participation processes at local levels have a particular difficulty to make an intimate relationship public – to raise the *lived* but little *said* place, perceived as an integral part of the local *subjects*, to an *object* open to public discussion. This is probably why more political forms of deliberative participation are generally (in the absence of a

major conflict) less demanded (at least from the lay) at the local level, than are more culture and patrimony oriented related interactions.

10) Organizing festive events for (re)producing consensus values

In the Communes studied local actors show a high appreciation of and demand for festive events, valuing local traditional knowledge, craftsmanship skills, local architecture, etc. Such events create opportunities to reproduce consensus values by anchoring them in a shared place. The forest seems to be a good symbolic place of social integration in modern contexts – a kind of all faith church capable to connect people from various origins, occupations, ages and gender. The forest is across many cultures associated to images of security, fertility and sustainability. Social events placed in the forest or celebrating forest or tree related symbols give opportunities for informal interactions mostly aimed at producing and reproducing shared values (also cross- cultural). Local decision-makers appreciate public animation events precisely because they don't aim at giving opportunities to political deliberation, will not crystallize conflicts to public issues, and will not challenge their positions of power. The aim of the actors organizing and taking part in the event is not to change social structures and power relations. However, the reproduction of values fostered by these collective agency processes induces some change too, even if not intended, because the traditional values are reproduced in changing contexts of social interactions. During a festive event, when the agents reproduce a traditional practice, for instance digging a charcoal making pit, it will modify (even if not voluntarily) the interpretation of the meaning of this practice: the ancestors practicing charcoal making perceived the forest mostly as a *resource*, while nowadays the organizers of the festive convey this forest practice to signify a *patrimonial value - a legacy of work and know-how worth transmitting across generations*. The type of social inter-action reproducing this practice is also changed (the social organization and the methods used for constructing the pit being changed). The objective of the organizers of a public animation event is to build trust and belonging to a place (personal and collective identity and social integration). Possibly, such festive events reinforce the local social capacity for local actors to feel safer about shared values, therefore possibly more capable to address conflicts, without threatening the division of local group boundaries. By bringing people together, these festive events provide opportunities for conflict mitigation in an informal way, through face-to-face inter-personal interactions, which helps protecting the personal identities from collective exclusion attitudes. This is why organizing festive events in the forest contributes (but does not suffice by itself) to developing participatory forestry at local levels.

11) Recognizing the constraints of public deliberation at local levels

We identified few organized forms of deliberative participation¹³⁴, whereby a relatively large public can openly define and debate issues¹³⁵. At local levels, social groups tend to be small and participation integral (affecting a large array of personal activities not partially just one domain of activity). Social conflict theory (Coser, 1956) shows that under these conditions it is more difficult for the group to address conflicts without risking group division and/or exclusion of dissenters. Our cases show that at local level, people tend to avoid the constitution of formal groups which open objective is to confront conflicts. Local movements mobilized around conflicts, tend to be organized in temporary and loose networks rather than in greatly organized groups. They often avoid deliberating in the open and prefer small more or less spontaneous and informal reunions.

¹³⁴ M Shannon with the concept of *deliberation* highlights the communication process that takes place among various stakeholders (involving policy makers, managers, scientists and various citizens' groups or individuals"), during which "*people confer, ponder, exchange views, consider evidence, reflect on matters of mutual interest, negotiate and attempt to persuade each other.*"(National Research Council 1996, cit. in Webler, 1998: 61).

¹³⁵ The only process identified, which included some public meetings, was the *Label Nature* process aimed at creating a new protected area in canton de Vaud.

They use few local formal means of communication but more indirect pressure on decision-makers (gossip, rumours and clan politics). If local actors use formal (legal and political) means, they tend to seek support in regional and national institutions. In fact, at local levels, actors are anxious to protect their person and their private sphere. Another explanation for the relative rare occurrence of formally organized deliberative types of participation at local levels is that political decision-makers from local to above levels know (even if intuitively) that it is first through local interaction processes that private issues become public. In order to maintaining social structures favourable to their power relations, decision-makers tend to suppress the generation of public conflicts or issues challenging these structures and avoid therefore the formation of public debates. However, the research shows that there is a great variety of local institutions which favour more or less deliberation and local democracy. Fostering deliberative participation processes at local levels necessitates building on local democratic capacity. However, some professional facilitation may be helpful when local actors have lost capacity and/or trust in local interactions.

12) Strengthening communal appurtenance to the forest

The relationships between the State forest agent and the communal owner, as well as between the local users, residents and the communal owner are difficult partly because there is uncertainty about who *is* or *represents* the communal – collective - forest owner. The fact that the State does not - or barely - recognize the specificity of communal ownership, considering it in general as public property, contributes to this uncertainty. Many residents interviewed, particularly those occupied in the tertiary and in the secondary sectors, do not consider their Commune's forests as being more theirs, than are any other public forests. Most do not know the territory and the property boundaries of the communal forest. Furthermore, in the context of the studied Alpine region, now that the mountain forest tends to yield more costs than benefits, it is not only true that communal owners have suffered from the State taking over their local institutions and associated rights and responsibilities, but also that they are now quite willing to delegate their forest management responsibility to State agents. With eroding interest on the part of the communal owner, communication between forest administrators, communal representatives and residents becomes tenuous, and in the process local actors tend to loose the knowledge and the social capacity to manage their communal forests. Most residents do not know that there is a forest management plan signed by their municipality, not even mentioning what it consists in, and few municipals do ever consult these plans. The plan is not considered as a public document and is often not readily accessible at the townhouse. Even before thinking of participatory planning, it is necessary to better inform all municipals and the resident population about local forest management plans and their objectives. Even though the strengthening of communal appurtenance to forests runs historically against forest administrations' strategies, it is crucial that meaning is again given to communal ownership, or communal actors will not invest in their forests.

13) Valuing economically the Alpine forest for - and by involving - local actors

Mountain forest agents are formed in national schools with larger territorial scales of management in mind than the forest owners'. For Switzerland like for France, the forest guards are often nominated to work at a forest district level, including several Communes. With decreasing public funding in forestry, the tendency is to have even fewer foresters for larger forest territories. Local foresters trained by and at least partly employed by Forest Services organized at national levels are institutionally driven to value protection, conservation and recreation functions more than the economic production of Alpine forests. This neglect of the economic (job and income related) values des-invests local owners from forestry, which they perceive is catering to a larger and remoter public interest, for which they do not get paid or are barely compensated for (better so in Switzerland than in France). We saw that alpine residents who still depend on the forest as a source of livelihood or income are marginalized by the current forest economy and management structures, pushing them to either abandon their forestry based activity or to continue a marginal,

small scale informal forest based occupation. Improving conditions for local actors' involvement in forestry requires an economic valuation of the multiple mountain forest products and services. The involvement of the local actors in the contexts of the Alps would foster the economic valuation of Alpine forests, since it is a concern to these populations, as show the results from the interviews. However, local actors will not be able to value their forests' products and services in an autarkic economic system. They will have to negotiate with remoter stakeholders willing to pay for these products and services. This indicates the importance of articulating local forest related collective agency processes with participatory forestry developed at larger territorial and institutional scales.

14) Raising awareness and strengthening forestry capacity in tourism oriented Communes

Actors occupied in the tourism sector appear to have limited concerns for forestry conflicts, while they show more concerns for recreation and conservation conflicts. The studied tourism oriented Communes were formerly highly economically dependent on their forest and developed during the fifties and the seventies, their tourism infrastructures in great part by reinvesting their communal forest revenues. With the decreasing prices of timber since the eighties, these Communes displaced livelihoods from the primary to the tertiary sector and lost over a few decades their communal capacity and competency to manage their forest¹³⁶. While forest work was in the past mostly a wintertime occupation of Alpine farmers, nowadays, numerous farmers living in or near winter-tourism oriented Communes have deserted the forest, opting for more lucrative tourism related occupations. In such contexts, State forest agents and other local actors interested in forestry need to identify and build on the forest values most obviously recognized by these Communes, the patrimonial (mostly landscape and architecture related) and the recreational values. Key actions for developing participatory forestry consist in awareness-raising (including education in schools and commented forest visits with municipals), in building local forestry capacity, and possibly in developing local or regional markets for timber extracted from local forests, for energy and construction purposes.

15) Reviving the legacy of common property regimes

Until ten to twenty years ago, most municipalities hired their own communal forest guard (it is still the case in Valais, but the forester is trained and advised by State institutions), whereas nowadays the State forest service fulfills most management responsibilities. However, municipalities still consider the forest to be *a resource*, and even if they have some financial means, as do in some cases tourism-oriented Communes, they are quite unwilling to invest in their forest more than it bears profits. All municipals interviewed said that they tried to keep "*at least*" their forest budget even. Local interaction processes resembling most the common property resource management systems, draw on a legacy of collective strategies aimed at ensuring local livelihoods and solidarity among the community's members. At present, due to mostly exogenous economic changes, community level livelihood interests in Alpine forests erode and so do common property regimes. However, in some places residents innovate in new forms of common property regimes, where the objective is the enhancement of quality of life and social integration. These modern forms of CPR institutions use the communal forest good as a patrimonial value around which participants can reproduce traditional livelihood practices (making bread, collecting wood). Such processes are self-mobilized, even if they may benefit from some State support – in form of subsidies to restore some of their good (for example a bread oven). These modern forms of local CPRs are only remotely

¹³⁶ This situation should not be generalized to all tourism-oriented Communes. Outside our sample but in the first selection of 79 Communes, the tourism oriented Commune of Les Gets (Haute-Savoie) has developed a communal wood fueled heating system and a Forest Chart defining management and operational objectives for both communal and private forest owners. We did, however, not select this Commune as one of our six core studies, because the proportion of its communally owned forest was below the region's average in communally owned forest surface.

related to forest resources, are not confronted to issues of scarcity and have not institutionalized conflict management mechanisms. Even though quality of life interests alone are unlikely to motivate local actors to create 'robust' local CPRs, forest agents and communal representatives should foster the relations between these organizations and the communal forests, for instance, by encouraging their members' to collect affouage wood for fueling the bread oven, and to value this collective action as part of their (enacted) patrimony.

16) Involving women, the young and actors from the secondary and tertiary sectors

With the mounting global energy crisis, local actors' interest and involvement for sustaining communal forests may revive. But, with decreasing subsidies, there is a risk of even further des-investment in communal Alpine forests. Or it may pressure the forest service, forest owners and forest enterprises to develop partnership and to actively seek public support. It may be an incentive for forest administrations to communicate more with forest owners, to involve them in forest decisions, and to motivate their collaborative investment too. It is, however, uncertain how local actors will manage to balance multiple forest benefits and in particular the integration of their own local interests with those of remoter stakeholders. Given the fact that in local alpine communities there are nowadays numerous people who are economically not depending directly on the forest, they may help balance the timber production interests with interests for other forest amenities. Communal institutions, as well as forest agencies, need to involve the lay and the local people who do not directly live from the forest too. As we saw, it was the young, the women and the people occupied in the tertiary and secondary sectors who expressed most forest values – in particular most environmental, patrimony and recreation values.

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APPENDIX

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A. Forest conflicts (background data)

In this section of the Appendix are presented six tables, one per Commune, showing the results of the conflict analysis.

The tables of each Commune have different formulations of conflicts - as expressed by the informants. These site specific conflicts are listed as sub-categories in the second column.

In the third column we show how we classed the site specific conflicts into cross communal conflict categories, upon which we can compare results across Communes. The letters in small caption, following the numbers (for the multiple land use conflicts) and capitals (for the forestry conflicts) allowed comparing to some extent also the results at the subcategory level (as defined in the second column – for each Commune). However, at the subcategory level we did not force unification of categories for comparative purposes as we wished to keep alert of the specificity of each theme as portrayed by the interviews, in reference to each Commune.

The common more reified categories are:

Multiple land use conflicts

1. Recreation
2. Agriculture
3. Natural Risks
4. Conservation
5. Urbanization
6. Hunting and non-timber forest products

Forestry conflicts

- A. Forest operations
- B. Forest economy
- C. Forest management

The numbers in the first row refer to the actor interviewed (the names of the interviewed being kept anonymous)

The second row shows the sector of the interviewed main occupation. We have colored results in light green for the people working in agriculture related activities; in dark green, the actors from the forest sector; in purple the ones from the tertiary sector and in light blue the results for the actors from the secondary sector.

The first column gives a number to the identified conflicts. The sign (+) in the conflict tables shows that a conflict was mentioned in a given informant's interview. The last column is the total number of people mentioning the conflict in question (counting up the + in each row).

The age and gender classes are not represented in these conflict tables but were equally considered when processing the data. Age and gender are represented in this appendix for the following tables listing values expressed by each interviewed actors in the six Communes studied. Since the numbers identifying the actors in the conflict and the value analyses are the same, one can transfer the gender and age classes associated to the actors from reading the value table into the conflict table corresponding to the same Commune.

On the last row we have distinguished results according to the type of interviews: spontaneous interviews from interviews on invitation (the latter last about double the time of the former and give therefore more opportunities to the expression of conflicts). The number in **black** gives the average result irrespective of the type of interview, while the number in **blue** gives only the average for the interviews on invitation.

1) Vacheresse

	Conflicts/actors	*	4	10*	6	5	7	8	1	2	5	9	T
	Actors		A	A	F	S	F	F	T	T	T/A	T	
1	Vehicles / forest roads	1d								+	+		2
2a	Pâturage en forêt /	2a							+				1
3	Decreasing farming activity and influence in local governance	2c	+		+				+				3
4	Closing of pastures and landscapes	2d			+		+	+	+		+		5
5	Natural risk prevention / constructions	3e			+			+	+		+		4
6	Dispute about the creation of the nature reserve of Bise.	4a			+	+		+					3
7	Conflicts with ENGOS	4e						+	+				2
8	Natura 2000 European experts not consulting locals	4f							+				1
9	Urbanization // farming & forests	5a						+	+				2
10	Access/maint. forest/pastoral roads	Aa	+	+	+			+	+	+	+		7
11	Safety in logging	Ab				+		+	+				3
12	Species preferences	Ae					+	+					2
13	Plantations	Af			+				+				2
14	Forest Technology / use of large extraction tractors /	Ag			+	+	+		+	+			5
15	Declining communal forest income	Ba							+				1
16	Affouage / Regulating access to communal woodlots	Bc	+	+				+	+		+		5
17	Local work / little valued // unfair competition Swiss	Bd	+	+	+	+		+	+				6
18	Decreasing interest to practice logging and forestry work	Be	+	+	+	+	+	+	+				7
19	Formal / informal wood economy	Bf	+	+		+		+			+		5
20	Access to subsidies to cover the public services of forests	Bh							+			+	2
21	Timber Extraction constrains with environmental demands	Cb					+		+				2
22	Lack of recognition for farmers' forest know-how	Cc	+	+		+							3
23	Ownership / management claim	Cd		+				+	+		+		4
24	Communication municipality / forest agents / residents +	Cf	+		+		+				+		4
25	Access to the forest for education	Cg										+	1
26	Policing role of the municipality ONF / residents	Ch	+	+					+		+		4
	Total		9	8	10	7	6	13	19	3	9	2	86/8,6
	Mean nb conflicts/actors/ sector			8,5			9,0-9,7				8,3-10		

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

10 is the result of a short interviews done at the exist of the auctioning session with residents who took part

2) Nancy sur Cluses

	Conflicts/actors	*	6	2	3	5	7	8	10	1	4	9	T
	Actors		A	F	F	F	F	F	F	T	T	S	
1	Footpath and tourism development	1			+	+				+	+	+	5
2	Communal support to farming	2c	+										1
3	Access pastures / forestry operations	2b	+	+									2
4	Forest overgrow pastures	2d	+	+					+				3
5	Locals / ONF logging a great old tree	4b			+								1
6	Water conservation	4c		+	+								2
7	Hunting rights	6b		+									1
8	Forest road construction	Aa							+				1
9	Declining timber prices / extraction	Ag					+						1
10	Overexploitation of forest	Ag	+		+	+		+					4
11	Poor forest maintenance	Ah	+					+		+			3
12	Decreasing comm. forest income	Ba	+	+	+	+	+	+	+	+			8
13	Forest investment	Bb		+					+				2
14	Residents access to forest resources	Bc		+	+			+	+		+		5
15	Global / local wood economy	Bd					+						1
16	Loggers desert their profession (pay / risk)	Be		+	+	+	+	+					5
17	Access subsidies	Bh	+		+								2
18	ONF timber sales / Comm. economy	Bi			+		+						2
19	Lack of valorization/wood	Bj			+								1
20	Private property / public / communal	Cd	+				+		+	+			4
21	Generational conflict / forest management	Cf	+		+	+	+	+				+	6
22	Lack of acceptance of local forest manager	Cf	+		+	+	+			+			5
23	Access to the forest difficult with kids	Cg								+	+		2
24	Policing forest uses	Ch				+	+						2
	Total		10	8	12	9	9	6	6	6	3	2	69/6,9
	Mean conflict		10			8,0-8,2					4,5-6	2	

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

3) Châtel

	Conflicts/actors	*	5	6	9	13	2	11	12	10	1	3	4	7	8	T	
	Sectors		A	A	A	A	F	F	F	T	T/F	T	T	S	S		
1	Ski // conflict with protection role of the forest // UTN..	1a/4		+					+	+	+					4	
2	Recreation // fauna concentration // forest damage	1/7							+							1	
3	Use of forest roads / reparation	2b/4	+	+	+		+		+		+					6	
4	Access to and maintenance of communal pastures	2c	+	+	+	+										4	
5	Agriculture decline	2 c	+	+	+	+										4	
6	Forests invading pastures	2d		+	+	+			+			+				5	
7	Construction of a protection wall / private forest owners	3a		+			+	+	+		+			+	+	7	
8	Fear of avalanches / inundations, etc related to poor maintenance	3b/6			+				+			+				3	
9	With ecologists	4e						+		+	+				+	4	
10	With Natura 2000	4f		+		+					+					3	
11	Farmland / urbanization pressure / the Mountain law	5	+	+	+	+					+					5	
12	Urbanization near forest	5a					+		+							2	
13	Mushroom picking	6		+					+							2	
14	Logging // recreation : Security // timing	Ab					+		+	+						3	
15	Forest technology change/heavy machinery	Ac					+		+		+					3	
16	Lack of stocking sites	Ad					+		+							2	
17	Forest plantations / clearcut // jardinée	Afg						+								1	
18	Forest not clean	Ah		+	+		+	+	+	+	+	+				8	
19	Sanitation of by Lothar damaged forest	Ai		+	+		+	+	+	+	+	+	+	+	+	11	
20	Drop of forest communal income	Ba					+				+					2	
21	Non sufficient com. forest investment	Bb		+	+		+	+	+			+				6	
22	Local / global forest economy	Bd					+	+	+		+					4	
23	Forest jobs in perdition	Be					+	+	+		+					4	
24	Decreasing forest work by farmers and locals	Bg			+	+				+	+	+				5	
25	Access to subsidies	Bh		+	+	+	+	+	+			+				7	
26	Valoriz. Local wood	Bj			+						+					2	
27	Local and expert knowledge	Cc						+								1	
28	Ownership	Cd	+		+	+	+	+	+		+				+	8	
29	Lack of communication foresters/municipals/locals	Cf			+	+	+	+	+		+	+	+			8	
30	Policing / authority	Ch					+	+								2	
	Total		5	13	14	9	16	13	19	6	16	8	4	2	21	43	127 9,8
	Mean nb conflicts/actors/ sector				12-10,3			16			11-8				3		

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

4) Leysin:

	Conflicts/actors	*	8	9	1	3	7	11	2	4	5	6	10	12	T
	Sectors		A	A	F	F	F	F	T	T	T		T	T	
1	Impact ski + develop.	1a			+	+				+	+		+	+	6
2	Artificial snow	1a			+						+		+	+	4
3	VTT/walking/horsesmanagement/trails	1b/c/		+	+							+			3
4	Snow bikes + vehicles	1e			+						+			+	3
5	Decreasing agric. Capacity / influence	2c	+	+											2
6	Pastures invaded by forest	2d	+			+	+		+	+					5
7	Protection natural risks	3		+	+	+				+					4
8	Conservation / PA	4	+								+			+	3
9	ENGOS	4e			+	+					+		+	+	5
10	Waste / pollution	4f									+			+	2
11	Train of la Berneuse	5b			+	+			+		+		+	+	6
12	Housing constructed near / in the forest	5b			+										1
13	Military uses	5c			+	+	+				+				4
14	Hunting	6b									+				1
15	For roads construction	Aa		+										+	2
16	Logging danger / recreation	Ab				+									1
17	Monoculture / plantations	Ae/f	+								+			+	3
18	Plantations obstructing view	Af	+				+							+	3
19	Forests not clean	Ah				+				+	+			+	4
20	Ips management	Ah				+	+		+						3
21	Decreasing com. forest income	Ba		+	+	+	+	+	+						6
22	Decreasing communal forest investment	Bb	+	+			+						+		4
23	Demand for communal wood	Bc	+	+			+								3
24	Forest employment/ Local/global economy	Bd					+	+							2
25	Logging – difficulty of the profession	Be				+	+	+							3
26	Tertiary / primary sector	Bg					+						+	+	3
27	Access to subsidies / public	Bh	+			+	+								3
28	Lack of wood valorization	Bj		+			+						+		3
29	TRFK / forest experts	Cc	+	+											2
30	Charbonnière	Cd			+	+	+		+		+				5
31	Private forest owners	Cd	+	+					+						3
32	Communication	Cf					+			+	+			+	4
	Total conflicts		10	10	11	13	14	3	6	5	13	1	7	13	106/8,8
	Mean nb conflicts/sector			10			10,3				7,5-8,8				

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

5) Rossinière

	Conflicts/actors	*	5	9	1F	3M	6	2	4	8	7	10	T
	Types of actors		A/F	A	F	F	U/A	T	T	T	S	S	
1	Development of soft // winter tourism	1				+		+				+	3
2	Farming decline	2c	+	+	+	+			+	+			6
3	Forests invading into pastures	2d	+	+	+	+			+	+			6
4	Natural risks / avalanches / land slides	3b	+		+	+							3
5	Climate change	3c						+					1
6	Protected area / RB	4a	+	+	+	+		+		+		+	7
7	Lynx reintroduction, pastoral / hunting	4d		+	+	+		+	+	+			6
8	ENGOS / Pro-Natura Go conservation	4e/f	+	+	+	+		+	+	+		+	8
9	Inter-communality / differences richness	5			+	+		+		+			4
10	Wildlife / Hunting	6			+	+		+	+	+			5
11	Safety % logging	Ab	+	+	+	+							4
12	Forests too dark / monoculture	Ae				+		+	+				3
13	Plantations	Af				+	+	+	+			+	5
14	Extraction methods	Ag	+			+		+					3
15	Sanitary measures // ips	Ah		+				+				+	3
16	Forest degradation Lotha	Ai	+	+	+	+	+	+	+	+	+	+	10
17	Decreasing communal forest income	Ba	+		+	+				+	+	+	6
18	For. Investment	Bb	+			+							2
19	Reduced local demand in fuelwood	Bc	+	+		+			+				4
20	Labellisation local / glob markets	Bd	+	+		+			+	+		+	6
21	Farmers / forest work	Be/f	+	+		+				+			4
22	Subsidy led forestry /	Bh	+	+	+	+		+		+			6
23	Wood valorization	Bj	+			+		+	+				3
24	Multiple/use // Product. For /	Cb				+		+	+	+			4
25	Local knowledge / exper	Cc		+		+		+	+	+		+	6
26	Ownership	Cd	+	+		+		+					4
27	Communication	Cf				+		+					2
	Total		16	14	12	25	6	17	13	14	2	9	124 (12,4)
	Mean nb conflicts/actors/ sector			15		13-18,5			14,7			5,5-9	

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

6) Vollèges

	Conflicts/actors	*	8	1	2	3	5	6	7	9	4	10	T
	Sectors		A	F	T/A	T	T	T	T/A	T	S	S	
1	Picnic on pastures / (garbage, etc.)	1b	+	+	+				+			+	5
2	Motocross in pastures	1e	+		+								2
3	Browsing in forested pasture	2a	+	+	+						+		4
4	Collective / individual pasture maintenance	2c	+		+				+		+		4
5	Decreasing social capacity of farmers	2c	+		+								2
6	Forest overgrow	2d	+		+								2
7	Risk Avalanches / inundation / land slides, fire	3b	+	+	+				+		+		5
8	The protection of Goilly / wa / pasturing / develop	4a		+	+			+	+		+		5
9	Water protection / conservati	4c		+	+				+		+	+	5
10	Lynx / hunting	4d									+		1
11	ENGOS	4e			+			+					2
12	Environ.Impact/Slate quarry	4g			+								1
13	Urbanization / Constructions main village	5a						+	+			+	3
14	Development / heavy / light tourism development	5b			+	+	+	+	+			+	6
15	Mushroom picking /	6a			+						+		2
16	Over population or concentration of ungulates	6b			+								1
17	Planting of larches on pasture / pastoral uses	Af	+	+	+						+		4
18	Forest maintenance	Ah	+		+				+		+		4
19	Forest damage	Ai	+		+						+		3
20	Forest income	Ba	+		+						+		3
21	Minimal investment / bourgeoisie / Commune	Bb			+			+					2
23	Access / demand by residents to local fuel wood	Bc	+		+		+	+	+		+		6
24	Local market / global	Bd	+		+			+					3
25	Decreasing subsidies	Bh		+	+								2
26	Installation of a woodfuel communal heating system	Bj			+			+	+	+		+	5
27	Valorisation of local wood	Bj			+			+					2
28	Loss of local knowledge	Cc			+				+				2
29	Ownership rights/resp.	Cd	+		+			+	+	+	+	+	7
30	Communication	Ce				+						+	2
31	Policing uses	Ch	+										1
	Total		15	7	26	2	2	10	12	2	13	7	96 (9,6)
	Mean nb conflicts/actors/ sector		15	7	9-12,5						10		

* The third column indicates the main categories (in capital) and subcategories (in small letters) with which we have associated the nominal description of each listed conflict (second column)

B. Forest Values – (background data)

I. Resource

- 1) A place of work, a source of revenue and jobs;
- 2) A pool of feeding products (game, fruit, pasture for livestock);
- 3) A source of material for energy and construction.

II. Environment

- 8) An element of health and security (quality of water, air, etc.);
- 9) A landscape one views from home, work or during displacements;
- 10) An habitat for a diversity of animals and plants;
- 11) A place to observe and learn about nature.

III. Protection

- 10) A protection against avalanches, rock fall, inundations, mud and land slides;
- 11) A regulator of climate and water cycles.

IV. Patrimony

- 18) A territory of private or exclusive ownership;
- 19) A common territory – belonging to a community of “us”, or to the public “all”;
- 20) An element of the constructed patrimony - architecture, crafts and implements;
- 21) A living legacy of work and know-how transmitted across generations;
- 22) A place for social exchange and binding (families, friends, partners, associates...);
- 23) An element of collective and personal identities;
- 24) A place for - and an object of - festive and cultural events;
- 25) A pool of symbols feeding artistic and spiritual (re)productions.

V. Recreation

- 23) A place to rest and to contemplate;
- 24) A space for sportive activities;
- 25) A place to play for children – socialization games;
- 26) A refuge from urban constraints and rationalized spaces;
- 27) A sensorial experience (smell, taste, touch, hearing and sight).

1) Vacheresse

Values/actors	1	2	3	4J	5J	6	7J	8	9	10	T	
I. 1	X		X	X	X	X	X	X		X	8	18
I. 2					X	X		X			3	
I. 3	X		X	X	X	X		X		X	7	
	2		2	2	3	3	1	3		2		
II. 4	X										1	11
II. 5 (a)	X				X			X			3	
II. 5 (b)	X				X	X					3	
II. 6								X	X		2	
II. 7								X	X		2	
	3				2	1		3	2		6	
III. 8	X							X			2	3
III. 9	X										1	
	2							1				
IV. 10	X									X	2	15
IV. 11	X				X				X	X	4	
IV. 12												
IV. 13	X		X		X	X		X			5	
IV. 14.										X	1	
IV. 15		X							X		2	
IV. 16												
IV. 17									X		1	
	3	1	1		2	1		1	3	3		
V. 18									X		1	8
V. 19	X	X			X			X	X		5	
V. 20									X		1	
V. 21												
V. 22									X		1	
	1	1			1			1	4			
	11	2	3	2	8	5	1	9	9	5		55/10 = 5,5

Order of decreasing importance:

- 1) Resource
- 2) Patrimony
- 3) Environment
- 4) Recreation
- 5) Protection

Agriculture	3,5
Forestry	4,5
Tertiary/Secondary	7,5
F: 8,5	J=3,7
H: 4,8	E= 6,3

2) Nancy sur Cluses

Values/actors	1J	2	3	4J	5J	6J	7	8	9J	10	T	
I. 1		x	x		x	x	x	x	x	x	8	20
I. 2	x	x	x					x	x	x	6	
I. 3			x		x	x	x	x		x	6	
	1	2	3		2	2	2	3	2	3		
II. 4				x		x	x		x		4	9
II. 5 (a)												
II. 5 (b)									x		1	
II. 6			x					x	x		3	
II. 7										x	1	
			1	1		1	1	1	3	1		
III. 8										x	1	2
III. 9		x									1	
		1								1		
IV. 10	x		x			x	x	x	x		6	22
IV. 11			x					x	x		3	
IV. 12			x	x							2	
IV. 13		x	x	x				x		x	5	
IV. 14												
IV. 15		x		x							2	
IV. 16			x	x		x					3	
IV. 17			x								1	
	1	2	6	4		2	1	3	2	1		
V. 18												6
V. 19			x	x		x			x	x	5	
V. 20												
V. 21								x			1	
V. 22												
			1	1		1		1	1	1		
	2	5	11	6	2	6	4	8	8	7		59/10 = 5,9

Order of decreasing importance:

- 1) Patrimony
- 2) Resource
- 3) Environment
- 4) Recreation
- 5) Protection

Agriculture	6
Forestry	6,2
Tertiary/Secondary	5,3
F: 4	J: 4,8
H: 6,4	E: 7

3) Châtel

Values/acto	1 J	2 J	(3)	(4) J	(5) J	6	(7)	(8)	9	10 J	11	12	13 J	T	
I. 1	X	X		X								X		4	13
I. 2	X			X		X			X	X		X		6	
I. 3	X								X	X				3	
	3	1		2		1			2	2		2			
II. 4	X			X										2	11
II. 5 (a)	X							X	X					3	
II. 5 (b)	X								X					2	
II. 6	X							X		X	X			4	
II. 7														0	
	4			1				2	2	1	1				
III. 8	X							X	X	X		X		5	6
III. 9	X													1	
	2							1	1	1		1			
IV. 10			X						X	X				3	22
IV. 11	X						X	X		X				4	
IV. 12	X	X		X					X	X				5	
IV. 13	X													1	
IV. 14	X								X	X				3	
IV. 15	X									X				2	
IV. 16	X									X				2	
IV. 17									X	X				2	
	6	1	1	1			1	1	4	7					
V. 18	X									X				2	6
V. 19	X	X								X				3	
V. 20															
V. 21										X				1	
V. 22															
	2	1								3					
Total	17	3	1	4		1	1	4	9	14	1	3		58/	4,

Order of decreasing importance:

- 1) Patrimony
- 2) Resource
- 3) Environment
- 4) Protection = Recreation

Agriculture	2,5
Forestry	2,3
Tertiary / Secondary	6,8
F: 3,8	J: 6,6
H: 4,8	E: 2,9

4) Leysin

Values/actor	1J	2	3	4	5	6	7J	8J	9	10J	11	12	T	
I. 1	x		x				x	x			x		5	16
I. 2	x	x	x		x		x					x	6	
I. 3	x						x	x	x	x			5	
	3	1	2		1		3	2	1	1	1	1		
II. 4										x			1	11
II. 5 (a)							x			x			2	
II. 5 (b)														
II. 6	x							x	x			x	4	
II. 7		x					x		x	x			4	
	1	1					2	1	2	3		1		
III. 8	x		x	x	x		x		x			x	7	7
III. 9														
	1		1	1	1		1		1			1		
IV. 10		x									x		2	12
IV. 11														
IV. 12							x			x	x		3	
IV. 13											x		1	
IV. 14												x	1	
IV. 15			x						x		x	x	4	
IV. 16										x			1	
IV. 17														
		1	1				1		1	2	4	2		
V. 18												x	1	15
V. 19	x	x	x	x	x	x	x		x	x		x	10	
V. 20									x	x			2	
V. 21		x											1	
V. 22												x	1	
	1	2	1	1	1	1	1		2	2		3		
	6	5	5	2	3	1	8	3	7	8	5	8		61/12 =5,1

Order of decreasing importance :

- 1) Resource
- 2) Recreation
- 3) Patrimony
- 4) Environment
- 5) Protection

Agriculture	5
Forestry	6
Tertiary/Secondary	4,5
F: 4,5	J: 6,3
H: 5,2	E: 4,5

5) Rossinière

Values/actors	1J	2J	3	4J	5	6	7	8	9J	10J	T	
I. 1	X		X	X	X	X	X	X	X		8	19
I. 2	X		X				X	X			4	
I. 3	X		X	X	X		X	X	X		7	
	3		3	2	2	1	3	3	2			
II. 4			X	X				X	X	X	5	19
II. 5 (a)	X			X				X		X	4	
II. 5 (b)				X							1	
II. 6		X	X	X				X	X	X	6	
II. 7			X					X	X		3	
	1	1	3	4				4	3	3		
III. 8	X			X	X			X	X		5	6
III. 9									X		1	
	1			1	1			1	2			
IV. 10		X	X						X		3	27
IV. 11												
IV. 12	X		X	X		X	X	X	X	X	8	
IV. 13			X	X	X			X	X		5	
IV. 14.								X	X		2	
IV. 15			X		X			X		X	4	
IV. 16			X	X						X	3	
IV. 17							X		X		2	
	1	1	5	3	2	1	2	4	5	3		
V. 18								X			1	10
V. 19	X			X							2	
V. 20				X				X		X	3	
V. 21										X	1	
V. 22			X	X				X			3	
	1		1	3				3		2		
Total	7	2	12	13	5	2	5	15	12	8		81/10 =8,1

Order of decreasing importance :

- 1) Patrimony
- 2) Resource = Environment
- 3) Recreation
- 4) Protection

Agriculture	8,5
Forestry	7
Tertiary/secondary	8,6
F: 10,7	J: 8,4
H: 7	E: 7,8

6) Vollège

Values/actors	1	2	3J	4	5J	6J	7	8	9	10J	T	
I. 1								x			1	15
I. 2	x	x		x				x		x	5	
I. 3	x	x		x	x	x	x	x	x	x	9	
	2	2		2	1	1	1	3	1	2		
II. 4				x							1	18
II. 5 (a)	x	x					x				3	
II. 5 (b)		x				x					2	
II. 6	x	x	x	x		x	x				6	
II. 7		x	x	x		x	x			x	6	
	2	4	2	3		3	3			1		
III. 8	x	x		x		x	x	x			6	8
III. 9		x		x							2	
	1	2		2		1	1	1				
IV. 10							x				1	19
IV. 11										x	1	
IV. 12		x				x			x		3	
IV. 13		x				x		x		x	4	
IV. 14			x		x	x				x	4	
IV. 15		x				x				x	3	
IV. 16									x		1	
IV. 17						x				x	2	
		3	1		1	5	1	1	2	5		
V. 18		x	x				x				3	16
V. 19	x	x	x		x	x	x				6	
V. 20					x	x	x			x	4	
V. 21										x	1	
V. 22						x				x	2	
	1	2	2		2	3	3			3		
	6	13	5	7	4	13	9	5	3	11		76/10 7,6

Order of decreasing importance

- 1) Patrimony
- 2) Environment
- 3) Recreation
- 4) Resource
- 5) Protection

Agriculture	5
Forestry	6
Tertiary/secondary	8,1
F: 6,7	J: 8,3
H: 8	E: 7,2