



Forest Commons – Role Model for Sustainable Local Governance and Forest Management

MENSCH WALD!

Forest Commons – Role Model for Sustainable Local Governance and Forest Management

International Workshop Burbach, Germany
October 9-11, 2011

- Proceedings -

Booklet 22
of the State Forestry Administration series
North Rhine-Westphalia

Table of contents

7	Preface
14	Was unterscheidet Gemeinschaftswälder von Gemeindewäldern Von Christoph Ewers
17	Lessons Learnt from Commonly Owned Forests for the Establishment of “New Commons” in Private Forestry Ulrich Schraml and Andy Selter
23	Forest Commons Old and New: an Introduction to Community Woodlands in Great Britain Anna Lawrence
30	Slovenian Forest Commons – Cases of Collective Resource Management Nevenka Bogataj , Iztok Mlekuž , Štefanija Šebalj Mikše , Janez Krč
35	Common Property and Local Development: an Analysis in a District of Sardinia Region (Italy) Alessandro Paletto , Isabella De Meo and Fabrizio Ferretti
46	Agrarian (Forest) Commons in Slovenia Preliminary Findings Tine Premrl , Mirko Medved , Janez Krč
51	Sustainable Local Governance and Forest Management: the New Challenges for Forest Common Properties in the Veneto Region (Italian Eastern Alps) Paola Gatto , Laura Secco , Diego Florian and Davide Pettenella
58	Governance and Benefits Sharing in the Swedish Forest Commons: an Assessment of the Shareholder Satisfaction Mahesh Poudyal and Gun Lidestav
66	Shared Property in Forests - Property Rights and their Implementation in Common and Community Forests Christoph Schurr
74	Poster Session Modeling of Complex CPR-systems with Artificial Neural Networks Ulrich Frey and Hannes Rusch
76	Round Table: October 11th, 13:30 to 16:30, Burbach, Citizen’s Hall Summary of Discussion and Further Steps Renate Späth and Marie-Charlotte Hoffmann
78	Field Guide FC Hauberg Niederdresselndorf
80	Appendix to the Field Guide Forest Cooperate Hauberg Niederdresselndorf
85	NRW state forestry administration series
86	Imprint

Greetings



Dear Participants of this International Workshop on Forest Commons,

as one of the organisers of this workshop, our ministry would like to welcome you and thank you cordially for your interest and commitment, as you have travelled from various European countries in order to discuss collective forest ownership patterns and issues and collaborative management models. I hope that you will be able to commence with a common European project as one result of this workshop.

It is a great honour to welcome you today in the municipality of Burbach. Burbach, like the entire district of Siegen-Wittgenstein, is one of the most forested regions in Germany with more than 60 % forest coverage. Furthermore 16 % of the communities surface are nature conservation areas.

The focus of this workshop is the forest – not just any forest, but forests organised in cooperative ownership. This form of forest ownership can be found in North Rhine-Westphalia primarily here in the districts of Siegen-Wittgenstein and Olpe.

Who knows better than you, who have come from various countries with different social contexts, about the historical heritage associated with collective ownership? Especially today it is impressive how this special forest ownership structure has been kept alive for generations thanks to the commitment and dedication of the local people owning the forest together.

We want to use Forest Commons as a role model for the development of future policies dealing with small, private forest holdings. Besides surveys and evaluations, this also involves scenarios for future objectives. You, as participants of this workshop, will be able to contribute to these scenarios with your expertise and knowledge of different forms of collective ownership.

Which historical developments, motives and objectives are associated across Europe with collective ownership? Which advantages does this form of ownership offer for local involvement, effective management and local governance? These are just a few questions at stake you will be dealing with for the next two days.

Nevertheless, today we can already promise that the support for establishing new and modern forms of collective forest ownership will be placed on top of the agenda, both financially and in terms of forest policy. This includes the advancement of land consolidation, forest road-building as well as founding costs for forest cooperatives.

We want to learn from innovative new projects, how collective ownership can be developed today, which local conditions, clear understandings about usage rights, clear democratic interest rights for every individual and which conflict resolution mechanisms must be reconsidered. For this reason, we hope to receive many proposals from your comments and discussions.

Please allow me to briefly delve into an aspect that plays a special role locally and which is a matter close to my heart: the protection of flora and fauna and the corresponding contractual agreements with forest owners.

It may be of particular, now almost “historic” interest, and thus must be mentioned, that the State of North Rhine-Westphalia undertook in this region the first steps to introduce environmental contracting in the forests as an instrument to address vital issues of the protection of flora and fauna. In the 1980s, negotiations were held between the State of North Rhine-Westphalia and forest cooperatives to conclude public law contracts, which on one hand served to restore hazel grouse habitat (hazel grouse contracts in the area of Burbach/Neunkirchen) and on the other to safeguard an “historic Hauberg” in Fellinghausen (“Hauberg” is a traditional form of collective forest management in the region). As a result, the “hazel grouse contracts” came to fruition in the FFH framework agreement Burbach-Neunkirchen in the year 2000, which is valid for 20 years. In doing so, the state created the conditions for concluding contracts to preserve habitat for hazel grouse as well as for other bird species included in the EC bird protection directive, many species of which are so numerous here.

In addition, I would like to highlight the contractual negotiations with the State of North Rhine-Westphalia, which allow for the continued management of forests as “historic Hauberg”. There, the traditional form of “Hauberg” management takes place annually through dedicated volunteers, in order to demonstrate the cultural and early industrial heritage for present and future generations. I will assume that you will learn a bit more about Hauberg management.

We will continue to expressly support these actions as well and I am sure that the tradition of preserving natural habitats in forests by forest collectives will receive due consideration now and in the future.

As a contribution of the state forestry administration of North Rhine-Westphalia to the 2011 International Year of Forests, this workshop – with its reference to the collective management of a natural resource – will make a perfect bridge to the year 2012, which has been declared by the United Nations as the “International Year of Cooperatives”.

Let us work together to bring these two vital aspects of social life, forests and cooperatives, together. I wish you a successful workshop and look forward to learning from the results. I will declare in advance my support for a possible European project “Common Forest – A Sustainable Future”.



Johannes Remmel
Minister for Climate Protection, Environment, Agriculture, Nature Conservation and Consumer Protection of the State of North Rhine-Westphalia

The greetings were delivered by Hubert Kaiser,
Director of the State Forestry Administration of North Rhine-Westphalia

Grußworte

Sehr geehrte Damen und Herren, liebe Tagungsteilnehmer,

als Mitveranstalter dieses Workshops heißt Sie unser Ministerium willkommen und möchte sich bei Ihnen, die Sie aus verschiedenen europäischen Staaten angereist sind, um sich über gemeinschaftlichen Waldbesitz und gemeinschaftliche Bewirtschaftungsmodelle auszutauschen, herzlich für dieses Engagement bedanken. Ich hoffe, dass Sie am Ende ein gemeinsames europäisches Projekt auf den Weg bringen können.

Für uns ist es eine große Ehre, Sie heute in der Gemeinde Burbach zu begrüßen. Burbach, ebenso wie der gesamte Kreis Siegen-Wittgenstein, gehört zu den walddreichsten Gebieten in Deutschland mit mehr als 60 % Waldfläche, 16 % der Gemeinde sind überdies Naturschutzgebiete.

Im Zentrum der Tagung wird der Wald stehen, nicht irgendein Wald, sondern der genossenschaftlich ideell organisierte Waldbesitz. Diese Waldbesitzform findet man in NRW vor allem hier, in den Kreisen Siegen-Wittgenstein und Olpe.

Wer wüsste besser als Sie, die Sie aus unterschiedlichen Ländern und unterschiedlichen sozialen Kontexten kommen, welches historische Erbe mit gemeinsamem Besitz verbunden ist. Es beeindruckt gerade in der heutigen Zeit, wie über viele Generationen hinweggelebtes lokales Engagement diese besondere Form des Besitzes lebendig erhalten konnte.

Wir wollen unsere Forstpolitik so gestalten, dass wir das Modell des Gemeinschaftswaldes als Vorbild nehmen für die zukünftige Gestaltung des Kleinst- und Kleinprivatwaldes. Dazu gehören neben einer Bestandsaufnahme und Bewertung auch Szenarien einer zukünftigen Zielsetzung. Zu diesen Szenarien werden Sie als Teilnehmerinnen und Teilnehmer dieser Tagung wesentlich beitragen können.

Welche historische Entwicklung, welche Motive und welche Zielsetzungen werden europaweit mit gemeinschaftlichem Besitz verbunden? Welche Vorteile bietet diese Besitzstruktur für lokales Engagement, effektives wirtschaftliches Handeln und local governance? Dies ist ein Bruchteil der Fragestellungen, denen Sie sich zwei Tage lang zuwenden werden.

Für uns steht bereits heute fest, dass wir die Förderung der Neugründung von gemeinschaftlichen Wäldern sowohl forstpolitisch als auch finanziell ganz oben auf die Agenda setzen werden. Dazu gehört insbesondere die Förderung der Flurbereinigung, des Wegebaus sowie der Gründungskosten von Waldgenossenschaften.

An beispielhaften Projekten wollen wir erfahren, wie gemeinschaftlicher Besitz heute ausgestaltet werden kann, welche lokalen Rahmenbedingungen, klare Absprachen über Nutzungsrechte, klare demokratische Beteiligungsrechte eines jeden Einzelnen und welche Konfliktregelungsmechanismen dabei neu bedacht werden müssen.

Daher erhoffen wir uns viele Anregungen aus Ihren Beiträgen und Diskussionen.

Lassen Sie mich noch kurz auf einen Aspekt eingehen, der hier vor Ort eine besondere Rolle spielt und mir besonders am Herzen liegt: der Natur- und Artenschutz und entsprechende vertragliche Vereinbarungen mit den Waldeigentümerinnen und -eigentümern.

Von großem, nunmehr schon fast „historischem“ Interesse dürfte sein, und daher nicht unerwähnt bleiben, dass hier in dieser Region die ersten Schritte des Landes NRW zur Einführung des Vertragsnaturschutzes im Wald als Instrument zur Umsetzung von Natur- und Artenschutzbelangen gewagt wurden.

In den 80er-Jahren des vergangenen Jahrhunderts führten entsprechende Verhandlungen zwischen dem Land NRW und Waldgenossenschaften als Waldeigentümern zum Abschluss öffentlich-rechtlicher Verträge, die einerseits der Wiederherstellung von Haselhuhnbiotopen (Haselhuhn-Verträge im Raum Burbach/Neunkirchen) dienten und darüber hinaus die Sicherung eines „Historischen Haubergs“ in Fellinghausen zum Ziel hatten. Die „Haselhuhnverträge“ sind in der Folge aufgegangen in die FFH-Rahmenvereinbarung Burbach-Neunkirchen aus dem Jahre 2000, welche 20 Jahre Gültigkeit hat. Damit hat das Land den Rahmen geschaffen sowohl zum Abschluss von Verträgen zur Erhaltung des Haselhuhnbiotops als auch für andere Vogelarten der EG-Vogelschutzrichtlinie, die hier so zahlreich vorkommen.

Besonders hervorheben möchte ich auch die vertraglichen Vereinbarungen mit dem Land NRW, die es ermöglichen, eine ehemalige Haubergbewirtschaftung als „Historischen Hauberg“ weiter zu betreiben. Dort wird die traditionelle Art der Haubergbewirtschaftung jährlich wiederkehrend von ehrenamtlich engagierten Menschen betrieben, um das kulturelle und frühindustrielle Erbe der heutigen und künftigen Generationen erfahrbar zu machen. Ich gehe davon aus, dass Sie zur Haubergswirtschaft noch einiges erfahren werden.

Auch diese Leistungen wollen wir weiterhin ausdrücklich unterstützen und ich bin sicher, dass die Tradition der Waldgenossenschaften der Bewahrung der natürlichen Lebensräume in Wäldern einen gebührenden Platz eingeräumt hat und zukünftig einräumen wird.

Dieser Workshop als Beitrag der Landesforstverwaltung NRW im Internationalen Jahr der Wälder 2011 bietet mit seinem Bezug zur gemeinschaftlichen Bewirtschaftung einer natürlichen Ressource die perfekte Brücke hin zum Jahr 2012, welches von den Vereinten Nationen zum „Internationalen Jahr der Genossenschaften“ erklärt wurde.

Lassen Sie uns gemeinsam daran arbeiten, dieses Jahr auch im Forstbereich mit Leben zu erfüllen.

Ich wünsche Ihnen einen guten Tagungsverlauf, werde mich über die Ergebnisse unterrichten lassen und sage Ihnen bereits hiermit meine Unterstützung eines europäischen Projektes „Gemeinschaftswald – eine nachhaltige Zukunft“ zu.



Johannes Remmel
Minister für Klimaschutz, Umwelt,
Landwirtschaft, Natur- und Verbraucherschutz
des Landes Nordrhein-Westfalen

Die Grußworte wurden überbracht von Hubert Kaiser,
Leiter der Landesforstverwaltung NRW

Greetings



I am happy to be able to welcome you in the name of the North Rhine-Westphalia State Enterprise for Forestry and Timber. The workshop covers an important topic, I wish you much success, and I'm looking forward to seeing the results.

Generally visitors from foreign countries don't view North Rhine-Westphalia as a forestry oriented state. Instead, North Rhine-Westphalia has the reputation of large cities, coal and steel industry, the chemical industry, and the emerging service sector industry. North Rhine-Westphalia has 18 million residents and covers an area of 3.4 million hectares. Despite the public attention to other industries, forests play an important role in the state. About 915.000 hectares – representing approximately 27 per cent of the state – are covered by forests.

In the southern portion of the state forest management is dominated by a focus on timber production. More than 10 million residents live in the middle portion of the state. Here forestry has a special emphasis on recreational values. The northern portion of our state is dominated by agriculture. Of all states of Germany, North Rhine-Westphalia has the highest proportion of private forest lands. 17 per cent of forests are municipal and communal forest, 13 per cent are state owned forest, and 3 per cent are federal forest. This leaves two third of the North Rhine-Westphalian forest as privately owned forests. As small portion thereof – 41.750 hectares or 4.5 per cent of the total forest area – are forest commons.

For quite a while, social engagement of the public has declined. This has not only been reflected in lack of participation and involvement in political parties and associations, but also in forest commons. A three-years-old analysis by Christoph Ewers concluded that the work in forest commons is done almost exclusively by members of the governing boards.

I believe I have seen a recent change in this trend. In response to the global financial crisis and the energy crises, people have gained renewed interest in investing in forest land and forestry. Consequently, the price of forest land has increased. The scarcity of commodities and resources has resulted in higher prices for wood products as well.

Since we emphasize biodiversity, increased renewable resources, and maintenance of all ecosystem goods and services, it is the responsibility of the state to cooperate with various partners in efforts to ensure sustainable forest management. Hereby, one goal is to raise public interest in forestry and integrate the public into forest planning and management efforts. Forest commons are a prime example of this work.

Specifically, the North Rhine-Westphalia State Enterprise for Forestry and Timber has supported forest commons through establishment of a special section focused on forest commons at the Regional Forestry Office in Siegen-Wittgenstein.

Last, I would like to thank all that helped in planning and implementation of this meeting, especially the speakers. I hope you enjoy your time in Burbach and have a successful meeting.

A handwritten signature in blue ink that reads "Andreas Wiebe". The signature is fluid and cursive, with the first name being more prominent.

Andreas Wiebe
Director of Forest and Timber North Rhine-Westphalia

The greetings were delivered by Franz Püttmann, Forest and Timber North Rhine-Westphalia

Grußworte

Sehr geehrte Damen und Herren,
ich freue mich, Sie im Namen des Landesbetriebes Wald und Holz NRW begrüßen zu dürfen. Ich sehe den Workshop als sehr wichtig an, wünsche uns viel Erfolg und freue mich, von den Ergebnissen zu hören.

Normalerweise bringen ausländische Besucher Nordrhein-Westfalen nicht in Zusammenhang mit Forstwirtschaft. Nordrhein-Westfalen steht für große Städte, Kohle und Stahlindustrie, die chemische Industrie und einen wachsenden Dienstleistungssektor. Hier leben 18 Millionen Einwohner auf einer Fläche von rund 3,4 Millionen Hektar. Obwohl die öffentliche Aufmerksamkeit den vorgenannten Sektoren gilt, spielt allerdings auch die Forstwirtschaft eine wichtige Rolle im Land.

Rund 915.000 Hektar, das entspricht ca. 27 % der Landesfläche, ist bewaldet. Im südlichen Teil Nordrhein-Westfalens liegen die Hauptwaldgebiete und dort ist die Forstwirtschaft überwiegend auf Holzproduktion ausgelegt. Mehr als 10 Millionen Einwohner leben im mittleren Landesteil. Hier ist der Erholungswert des Waldes besonders wichtig. Der nördliche Teil Nordrhein-Westfalens ist überwiegend landwirtschaftlich geprägt.

Von allen Bundesländern Deutschlands hat Nordrhein-Westfalen mit ca. 67 % den höchsten Anteil an Privatwald. 17 % ist Kommunalwald, 13 % Staatswald und 3 % Bundeswald. Zweidrittel Nordrhein-Westfalens ist demnach in Händen von Privatwaldbesitzern. Ein kleiner Teil hiervon - 41.750 Hektar oder 4,5 % des Gesamtwaldes - sind Gemeinschaftswälder.

Seit einiger Zeit erleben wir einen Rückgang der ehrenamtlichen Aktivitäten unserer Bürgerinnen und Bürger für die Gesellschaft. Dies betrifft nicht nur die Mitarbeit in Parteien und Vereinigungen, sondern auch die Arbeit für Gemeinschaftswälder. Eine drei Jahre alte Analyse von Christoph Ewers, dem Bürgermeister der Gemeinde Burbach, kam zum Ergebnis, dass die Arbeit in Gemeinschaftswäldern ganz überwiegend von den Vorstandsmitgliedern erledigt wird.

Aktuell glaube ich können wir einen Wechsel erkennen. Ausgelöst durch die globale Finanz- und Energiekrise haben die Menschen wieder neues Interesse in Waldflächen zu investieren und auch aktiv Forstwirtschaft zu betreiben. Im Umkehrschluss ist der Preis für Waldflächen angestiegen. Die Verknappung von Rohstoffen und natürlichen Ressourcen hat infolgedessen natürlich auch zu höheren Holzpreisen geführt.

Nachdem die Erhaltung der Biodiversität, eine höhere Rohstoffmobilisierung und die Erhaltung des Gesamtökosystems mehr im Fokus stehen, ist es eine öffentliche Aufgabe, die verschiedenen Interessen unter einen Hut zu bringen, um nachhaltige Forstwirtschaft sicherzustellen. Ein Anliegen hierbei ist es, das Interesse der Öffentlichkeit an forstlichen Belangen zu verbessern und Dritte bei der forstlichen Planung und der Umsetzung einzubinden. Gemeinschaftswald ist hierfür ein gutes Beispiel. Der Landesbetrieb Wald und Holz NRW unterstützt die Belange des Gemeinschaftswaldes mit der eigens eingerichteten Schwerpunktaufgabe „Gemeinschaftswald“ im Regionalforstamt Siegen-Wittgenstein.

Abschließend möchte ich mich bei all denjenigen bedanken, die diese Tagung geplant und vorbereitet haben, insbesondere bei den Referenten. Ich wünsche Ihnen eine angenehme Zeit in Burbach und eine erfolgreiche Tagung.



Andreas Wiebe
Leiter Wald und Holz NRW

Die Grußworte wurden überbracht von Franz Püttmann, Wald und Holz NRW

Was unterscheidet Gemeinschaftswälder von Gemeindewäldern

Von Christoph Ewers¹

Ich bin gebeten worden, am Beispiel der Gemeinde Burbach den Unterschied zwischen zwei – sowohl in der deutschen, als auch in der englischen Sprache sehr ähnlich klingenden – Waldbesitzformen darzustellen: den Unterschied zwischen Gemeindewald und Gemeinschaftswald. Wegen der nur schwer vergleichbaren Rechtsgrundlagen in den verschiedenen hier vertretenen Ländern werde ich versuchen, diesen möglichst anschaulich und übersichtlich darzustellen.

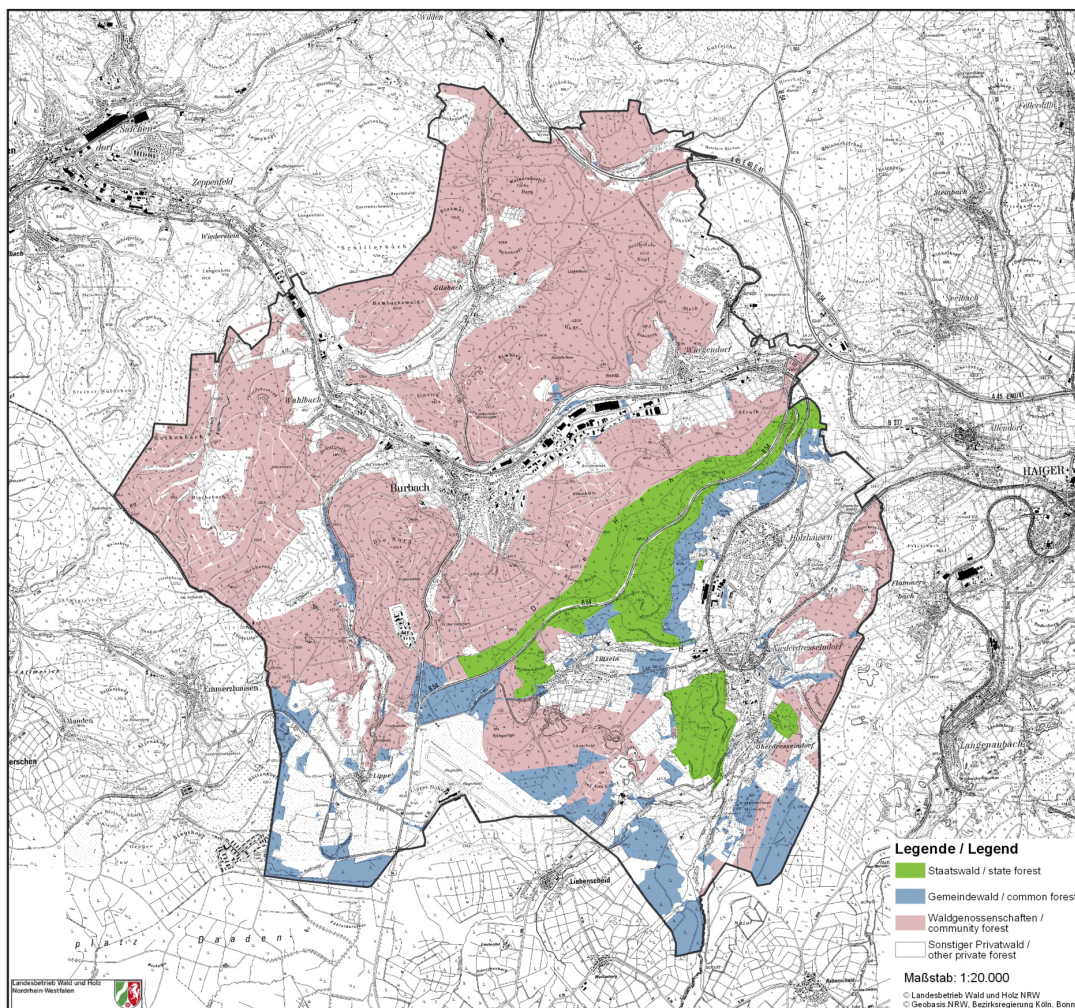
In groben Zügen möchte ich den unterschiedlichen rechtlichen Hintergrund dieser beiden Waldbesitzformen gegenüberstellen, um damit auch einen Einblick in den nordrhein-westfälischen Weg der rechtlichen Verortung des Gemein-

schaftswaldes und die sich daraus ergebende organisatorische Struktur der Waldgenossenschaften zu geben.

Gemeindewald gibt es in ganz Deutschland, wie in vielen anderen Ländern Europas oder der Welt auch. Es ist schlicht Wald im Eigentum der Gemeinden.

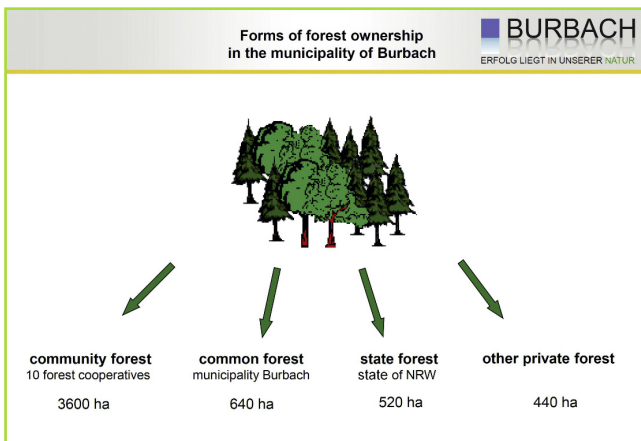
Gemeinschaftswald ist dagegen eine Waldbesitzform, die auf Deutschland insgesamt bezogen flächenmäßig eine geringe Bedeutung hat, hier in der Region und insbesondere in der Gemeinde Burbach jedoch die prägende Waldbesitzform ist. In ganz Nordrhein-Westfalen gibt es ca. 42.000 ha Gemeinschaftswald, in dieser Region, im Kreis Siegen-Wittgenstein sind es alleine fast 30.000 ha.

Waldbesitzformen in der Gemeinde Burbach / Forest Ownership in the Municipality of Burbach



¹Christoph Ewers, mayor of Burbach in the Siegen-Wittgenstein district, c.ewers@burbach-siegerland.de

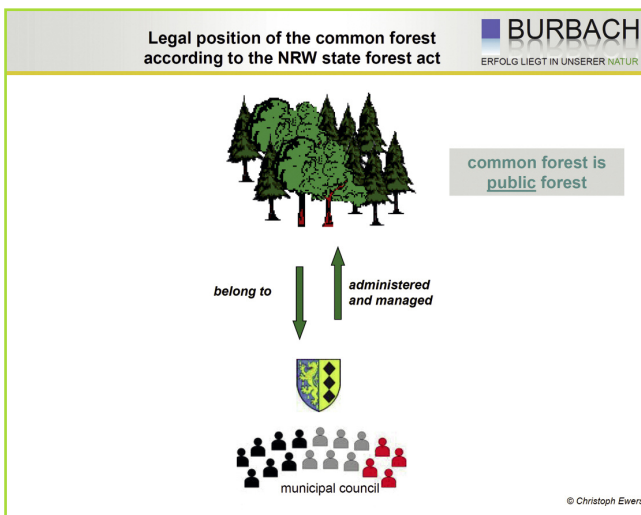
Die Fläche der Gemeinde Burbach ist zu 65 % bewaldet, das sind ca. 5.200 ha (ungefähr die Hälfte des Waldes ist Laubwald, der Rest Nadelwald, überwiegend Fichte). Davon sind fast 70 % (3.600 ha) Gemeinschaftswald. Dieser verteilt sich auf insgesamt 10 Waldgenossenschaften mit einer Größe zwischen 40 ha und 820 ha. Der Gemeindewald, also der Wald im Eigentum der Gemeinde Burbach, umfasst eine Fläche von ca. 640 ha. Außerdem befinden sich auf dem Gemeindegebiet noch 520 ha Staatswald und ca. 440 ha Privatwald einer größeren Anzahl kleinerer und mittlerer Einzelwaldbesitzer.



Waldbesitzaufteilung in Zahlen

Kommen wir zunächst zum Gemeindewald.

Der Wald ist im Eigentum der Gemeinde Burbach. Die Gemeinde verwaltet und bewirtschaftet den Wald. Entscheidungen zur grundsätzlichen Ausrichtung der Waldbewirtschaftung, über den jährlichen Wirtschaftsplan oder z. B. über Ankauf und Verkauf von Flächen trifft der Gemeinderat, also das von den Bürgerinnen und Bürgern gewählte Parlament der Gemeinde, dessen Vorsitz der hauptamtliche Bürgermeister hat. Eine Aufsicht der Forstbehörden über den Gemeindewald gibt es nicht.



Rechtsverhältnisse des Kommunalwaldes

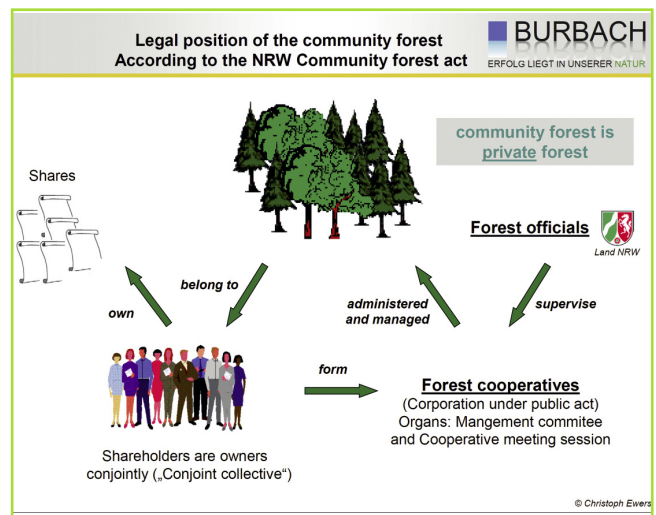
Im Landesforstgesetz sind dem Gemeindewald einige eigene Paragraphen gewidmet. Danach hat der Gemeindewald als öffentlicher Wald im Vergleich zum Privatwald einige besondere, allerdings sehr allgemein formulierte Verpflichtungen:

- Der Wald ist nach „neuzeitlichen forstwirtschaftlichen Grundsätzen“ zu bewirtschaften.
- Die Ertragskraft ist zu erhalten und die Nachhaltigkeit der Holznutzung zu wahren.
- Der Wald ist vor Schäden zu bewahren.
- Die Wohlfahrtswirkungen sind zu sichern.
- Die Erholung der Bevölkerung ist zu ermöglichen.
- Gemeindewald ist nach einem Betriebsplan zu bewirtschaften.
- Mit der forstlichen Bewirtschaftung ist forstliches Fachpersonal zu beauftragen.

Identische Vorgaben gibt es für die Bewirtschaftung des Staatswaldes. Für den Privatwald gibt es im Landesforstgesetz derart dezidierte Bestimmungen nicht.

Ganz anders ist die rechtliche Struktur des Gemeinschaftswaldes nach einem eigenen hierfür 1975 geschaffenen Gesetz, dem Gemeinschaftswaldgesetz.

Der Wald ist in gemeinschaftlichem Eigentum von vielen verschiedenen Anteilseignern. Sie haben kein Eigentum an realen Waldflächen, sondern besitzen ideelle Anteile an dem Gesamteigentum – ähnlich einer Aktie. Die Entstehung dieses Gemeinschaftswaldes ist historisch bedingt. Regional unterschiedlich ist dieser Gemeinschaftswald teilweise unmittelbar auf markengenossenschaftliche Ursprünge zurückzuführen, gründet also noch auf mittelalterlichen Agrarverfassungen. Teilweise sind diese Gemeinschaftswälder aber auch in den vergangenen Jahrhunderten aus unterschiedlichen Gründen aus Realeigentum heraus entstanden. Das Gesetz von 1975 hat fünf Vorgängergesetze abgelöst, die vorher je nach Entsteh-



Rechtsstruktur des Gemeinschaftswaldes

ungsgeschichte und Region in Nordrhein-Westfalen die Rechtsgrundlage für Gemeinschaftswald gebildet haben. Diese, teilweise jahrhundertealten Gesetze entsprachen in weiten Teilen nicht mehr unserem heutigen Rechtsverständnis und waren deshalb auch kaum mit anderen wesentlichen Rechtsvorschriften in Einklang zu bringen.

Die wesentliche Herausforderung war es, die Gesamthandsgemeinschaft – also die Gemeinschaft aller Anteilseigner – auf der Basis von Mehrheitsentscheidungen handlungsfähig zu machen. Ohne Regelung wäre Handlungsfähigkeit bei zu treffenden Entscheidungen oder Rechtsgeschäften ansonsten nur bei einstimmig erklärtem Willen aller Anteilseigner möglich.

Deshalb bilden nach dem Gesetz die Anteilseigner eine Waldgenossenschaft in der Form einer Körperschaft des öffentlichen Rechts. Diese Waldgenossenschaft hat lediglich den Zweck, die Verwaltung und Bewirtschaftung des Gemeinschaftswaldes sicherzustellen. Mit einem Vorstand und der Genossenschaftsversammlung, in der alle Anteilseigner vertreten sind, besitzt sie zwei Organe, denen nach dem Gesetz und nach einer für jede Waldgenossenschaft zu beschließenden Satzung bestimmte Aufgaben übertragen sind. Diese beiden Gremien sind über Mehrheitsentscheidungen handlungsfähig. Dabei hat in der Genossenschaftsversammlung jeder Anteilseigner so viele Stimmen, wie er Anteile hat.

Aufsicht über die Waldgenossenschaften führen die Forstbehörden des Landes, die die Waldgenossenschaften auch bei der Bewirtschaftung beraten und unterstützen. Gemeinschaftswald ist nach unserem Rechtsverständnis Privatwald. Deshalb unterliegt seine Bewirtschaftung auch nicht den gleichen eben genannten Verpflichtungen zugunsten des öffentlichen Wohls, wie die Bewirtschaftung des Staatswaldes und des Gemeindewaldes. Die Waldgenossenschaften in Burbach haben teilweise nur einige wenige, teilweise bis zu 400 Anteilseigner.

Die wesentlichen Kernelemente des Gesetzes sind außerdem das Verbot der Aufteilung der Waldflächen. Es ist also nicht möglich, dass aus dem Gemeinschaftswald durch Aufteilung realer Privatwald wird. Damit soll eine Besitzersplitterung verhindert werden.

Darüber hinaus ermöglicht das Gesetz die Zusammenlegung mehrerer Waldgenossenschaften zu einer größeren Waldgenossenschaft. Dies ist in den letzten Jahren auch in größerem Umfang durchgeführt worden.

Die Waldgenossenschaften profitieren dabei von den Synergieeffekten bei der Bewirtschaftung größerer Einheiten.

Außerdem eröffnet das Gesetz die Möglichkeit der Neubildung von Waldgenossenschaften. Davon ist in den ersten Jahrzehnten nach Verabschiedung des Gesetzes überhaupt kein Gebrauch gemacht worden. Im Bewusstsein der Menschen und auch der Forstbehörden diente das Gesetz in erster Linie dem Erhalt historisch entstandenen und bestehenden Gemeinschaftswaldes. In den letzten Jahren ist hier allerdings ein vorsichtiger Wandel zu verzeichnen. Es entsteht ganz allmählich – insbesondere im sehr kleinflächig strukturierten Privatwald – ein zunehmendes Interesse von Kleinstwaldbesitzern, sich dem Gedanken der Begründung gemeinschaftlichen Eigentums zu nähern. Diese Waldbesitzer sind bereit, ihr an eine ganz bestimmte Fläche gebundenes Realeigentum zugunsten ideeller Anteile an einem gemeinschaftlich bewirtschafteten Wald aufzugeben.

Daneben entsteht hier und da sehr wohl auch ein zunehmendes Interesse von Bürgerinnen und Bürgern, über die Beteiligung an gemeinschaftlichem Eigentum das eigene Lebensumfeld mitzugestalten. Hier gibt es noch zaghafte, aber sehr interessante Ansätze.

Das Gemeinschaftswaldgesetz NRW bietet eine geeignete Grundlage für die Begründung von Gemeinschaftswald und könnte damit zukünftig auch zu neuer Bedeutung gelangen.

In der Gemeinde Burbach hat sich die Bewirtschaftung von Gemeinschaftswald sehr bewährt. Die durch diese Rechtsform mögliche Bewirtschaftung auf großen Flächen ist sowohl ökonomisch als auch waldbaulich sinnvoll. Über die Vorstände der Waldgenossenschaften sind schnelle und verlässliche Entscheidungen möglich. Es gibt ein gutes Miteinander von Gemeinde und Waldgenossenschaften bei der Waldbewirtschaftung. Wir haben gemeinsam die Beförderung von Gemeinde- und Gemeinschaftswald dem Land übertragen.

Mein Fazit: Der Gemeinschaftswald ist nicht lediglich ein historisches Relikt vergangener Zeit, sondern zum einen eine bewährte, den heutigen Ansprüchen an eine moderne forstliche Bewirtschaftung entsprechende Waldbesitzform und durchaus auch ein Zukunftsmodell. Ich würde mich freuen, wenn diese Tagung auch dazu dient, für diese Zukunft Impulse zu setzen.

Lessons Learnt from Commonly Owned Forests for the Establishment of "New Commons" in Private Forestry*

Ulrich Schraml² and Andy Selter³

Abstract

Due to the agrarian and societal change and as a result of dividing time and again a parcel of land in each case of succession, about two million people in Germany own small pieces of forest land decoupled from agriculture. Some regions are almost characterised by these structures, which offer unsuitable conditions for sustainable forest management. Moreover, a lack of interest in the use of forest resources, resulting from a lack of time, know-how and technical equipment, paralyses the owners and forest protection problems accordingly challenge the resentment of neighbours.

As part of the current study a process of common forest management amongst private small forest owners lasting a number of years was initiated and accompanied by two case studies. The sites of investigation are situated ¹⁾ in the Southern Black Forest in the very south west of Germany and ²⁾ at the transition from low mountain range to the Northwest German Plain. Through targeted intervention and organisational development the research facilitated solving practical forest policy problems. It also provided for a theoretical understanding and thus the willingness of forest owners to cooperate and accept the critical rules for common management of individual forest property. Close cooperation should enable the owners to create benefits in social, environmental and economical respect. The idea of the initiatives follows the concept of common land use, which has a long tradition in Germany and takes place on about 2.4% of the forestland. The members of these old commons have never held individual property rights to this land. Hence they could never decide whether they wanted to use it individually or in common. This paper deals with the challenge of establishing the idea of the commons at the present time with owners of individual property. This project is based on theories of property rights and adopts an action research approach. It is characterised by the participation of the forest owners as in panel discussions, workshops and excursions, where they were involved in the conception of the new commons as an organisation, which uses land across property lines and offers sustainable forest management as a possibility for many.

Introduction

The overuse of forest resources currently represents one of the most pressing problems across many regions of the Earth. High population growth, economic problems, poverty and weak social frameworks are often considered the most important causes of this phenomenon. The relevant scientific literature frequently focuses on the interaction between property rights to natural resources and their use. HARDIN'S (1968) distinguished analysis reveals that a common use of resources is generally considered to be associated with a high degree of risk. Although his sweeping statements referring to a supposed 'tragedy of the commons' have been rebutted on the basis of various theoretical and empirical studies (e.g. OSTROM 1990, MCKEAN 1992), the taint of unhindered resource exploitation has stuck to commons ever since. As a consequence, the establishment of new commons as it is proposed by several authors (e.g. HOSTETTLER 2003, SCHLÜTER and SCHRAML 2006, SCHURR 2006) is regularly met with scepticism and it would appear that, from the perspective of political implementation, the call for the establishment of new commons as a solution to modern resource-use issues is partly viewed as undesirable.

The establishment of new commons was precisely the focus of two research and development projects targeting a quite different modern problem in the area of resource use. It has been reported for many countries in recent times that the resource use associated with small-parcel forest ownership is not characterised by over-use, but by a clear case of underutilisation. For example, in many parts of Europe, North America and Japan, there have been unanimous reports of the new, non-material motivations guiding the actions of forest owners, and of their failure to avail of the timber increment (HOOGSTRA and FLIER 2004, ELANDS and WIERSUM 2003, HOGL et al. 2003, SCHRAML and HÄRDTER 2002, KARPPINEN 1998).

The purpose of this paper is to describe and compare the attempts to determine the framework conditions under which the establishment of new commons would be possible in a highly industrialised nation. The emphasis lies on the set of rules that govern forest use and the political

¹ Prof. Dr. Ulrich Schraml, Institute of Forest and Environmental Policy, University of Freiburg, Germany, ulrich.schraml@ifp.uni-freiburg.de

² Dr. Andy Selter, Institute of Forest and Environmental Policy, University of Freiburg, Germany, andy-selter@ifp.uni-freiburg.de

*The present article is a revised and expanded version of the following paper: SCHRAML, U. and A. SELTER (2007): Beyond Traditional Cooperation: Establishing New Commons in Private Forestry. Proceedings of IUFRO 3.08 Conference, Leyte, The Philippines.

and administrative processes required for the coordination of forest owners. The statements are based mainly on the experiences made and the data collected by the authors upon initiating the different programs of common forest management in cooperation with other stakeholders, like forest extension services and forest owner associations in the two case studies.

Theoretical Concept

Property rights are considered to be one of the basic cornerstones of a country's social order. With respect to forest resources, the property rights governs the access, the withdrawal and the management of the resource, the exclusion of third persons and the owners' right to sell the property (SCHLAGER and OSTROM 1992). Under German legislation, apart from the right of access and the right to collect mushrooms and berries, the proprietor is entitled to exclude others from use of the forest, or to transfer these rights by contract to other persons or organisations. As a consequence of the present scattered nature of forest ownership, and of social change, the resource use as a subset of property rights have become under-represented in the thinking of many smallholders, as has been reflected in their behaviour. Their ability to manage the forests is in decline. Increasingly, the owners' rights have become decoupled from their responsibility for the forest property and, whether consciously or unconsciously, the property rights are now mainly used to exclude others from the use of the forest resources.

In the context of common land use, two basically distinct yet theoretically related models are the subject of scientific discussion, namely the 'tragedy of the commons' and the 'tragedy of the anticommons'. HARDIN (1968) described the fate of commons, where multiple individuals have access to the use of a scarce resource, as a 'tragedy', with the overexploitation of the resource almost inevitable. HELLER (1998) alternatively, claimed that the fate of anticommons is also ultimately a 'tragedy'. The root of the 'tragedy' of the commons is that there are no rules regulating the use of a resource, or that those that do exist are too weak. Specifically, commons are not governed by effective rules that is individual property rights or even group property rights, central to controlling use and assigning responsibility. The outcome is the potential plundering of the resource.

The concept of the refers to property where multiple owners hold the right to exclude access and beneficial use by others to a specific resource. As a consequence, no one effectively exercises the privilege of use, and the resource in question may be subject to underutilisation. The anticommons concept also represents a powerful tool in property theory. It describes a lack of conformity

between use and exclusion rights. Some authors adapted the concept to problems of property fragmentation (SCHULZ et al. 2002, and in the context of forests SCHLÜTER and SCHRAML 2006 and SCHURR 2006). Referring to forest ownership, the anticommons are described as a type of property in which forest owners have at all times the chance to prevent other forest owners from exercising their property rights. Consequently, no one is ever entitled to avail of any of their property rights, except as expressly authorised by the other joint landholders. In the case of anticommons, those holding the rights are not able to use the associated resources. The property rights are fragmented, and fraught with many physical and psychological boundaries. The holders are in a position to exclude others from access to a scarce resource, but are not in a position to avail of the resource themselves. Consequently, no one is able to either tend to or utilise the resource, and no one feels responsible for changing the status quo.

These two models describe problems in relation to land use arising as a consequence of a lack of conformity between use and exclusion rights (PARISI et al. 2005). In both cases, the actors involved do not make sustainable, long-term decisions but prefer to set short-term objectives targeting a reduction of the transaction costs. These costs comprise the costs of founding and maintaining an organisation, equipment, communication, negotiation and the drawing up of contracts. The consequence for the commons is a lack of effective property rights controlling use and assigning responsibility. The anticommons, in contrast, disregard intergenerational transaction costs necessary to assert property rights and to assign responsibility.

The theory of the anticommons describes a situation that corresponds closely to the reality in many regions where forest ownership is scattered. The individual forest owner is merely endowed with the right to exclude other forest owners from the resource. Rules potentially enhancing the silvicultural management of the forests are weak. Thus the approach adopted in this study sought to enhance cooperation. One of the expected outcomes of closer cooperation is a lessening of the tendency to exclude others from forest use.

Approach

During the last years the authors accompanied two initiatives with the aim to establish common forest management. Both initiatives succeeded. They were accompanied by scientific studies. One case study was situated in the Southern Black Forest in the very south west of Germany (state of Baden-Wuerttemberg) and the other one at the transition from low mountain range to the

Northwest German Plain (state of North Rhine Westphalia). As part of this process, the forest owners were brought together to develop rules for the common use of their forest properties. A participative process provided a convenient opportunity for the forest owners – particularly for less well informed owners – to take part in the basic negotiations to determine the framework of the kind of forest management. A cornerstone of this participation approach is the assumption that each member of the group has own legitimate objectives for his forest property.

The studies adopted an action research approach based on an emancipatory understanding of science. ARGYRIS and SCHÖN (1996) described this approach as both a multiple-loop learning method and a participative method, which regards the forest owners as members of the research group, actively making decisions concerning the process of change. The participatory process involves a spiral of steps, consisting of planning, implementing and ascertaining the outcome of the action taken. In this sense, action research is not only a form of research describing how humans and organisations behave but also a mechanism that helps humans and organisations to reflect upon and change their own systems. Consequently, processes of understanding the system and change go hand in hand (REASON and BRADBURY 2001).

Figure 1 is a schematic representation of the approach, adapted to the specific conditions of the process of change which can affect forest owners. The participative process within the loop is the core of the approach, which brought together many forest owners for the purposes of cooperation and resulted in the development of a strategy. The following six points are a more detailed description of the steps of the action research approach.

1. The action research approach deals with a real problem within a process of change, in this example the related problems of underutilisation and the predominance of exclusion rights.

2. For an initial understanding of the system, it was necessary to gather local information about the legal, political and social frameworks pertaining to forest property, and to learn as much as possible about the value systems of the forest owners concerned. The initial phases of the case studies presented here are based on telephone and postal interviews with about 400 forest owners. The respondents answered questions concerning the local forest management regime, their individual objectives and their social situation.

The average size of the smallholder properties was found to be about 0.5 ha in SW-region and about 2 ha in NW-region. In both regions, the individual forest property is mostly scattered across numerous woodlots. Most forest owners in SW-region (95 %) are not actively engaged in agriculture, and manage their forests parallel to their professions, or have already retired from work. The average age of the forest owners in both regions is above 60 years, in SW-region even two thirds are over 70 years of age and the question of succession dominates their thinking with regard to their forest property. In contrast, the objectives of the forest owners in NW-region are more economically orientated and focus more on the self-supply with fuel wood.

3. Subsequently first hypotheses were developed: 'a closer cooperation between forest owners is suitable to enhance silvicultural management', 'the participative development of a legal framework enhances the acceptance of its rules about closer cooperation', 'the forest owners' mistrust in one another interferes with the application of their management rights' and 'trust in an independent mediator enhances the property owners' willingness to cooperate'. These initial assumptions were the starting point of the participation process.

4. The smallholder survey served as a primer, raising the awareness of the need for a process of change in the local private forestry regime. The results of the survey

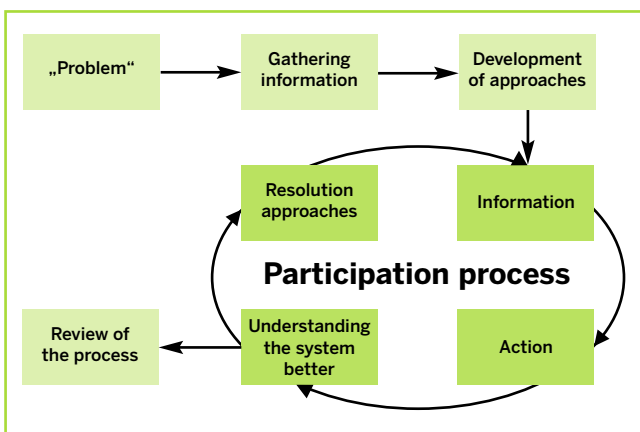


Figure 1: Multiple-loop learning within the studies

Attribute	SW-region	NW-region
Average size	0.5	2.0
Members of the new commons	50 out of 1,000	60 out of 80
Initial situation	Calamities – forest protection problems	Changes in federal extension policy
Main targets	Non-monetary	Fuel wood
Focus	Tending the forests	Foster economical function

Table 1: The structure and the objectives of the forest owners in the case studies

of forest owners and the information about the current management problems referring to forest protection problems or unclear property rights were presented in a panel discussion which marked the beginning of the participation process. The discussants included forest owners, forest service officials, experts and scientists. The information derived from the enquiry and the panel discussion was disseminated on the occasion of forest excursions, at a market stand, in newspapers, in flyers and via Internet. All forest owners were invited to participate in the upcoming parts of the process. In the following a number of forest owners indicated their willingness to participate in the workshops. Over the course of the participation process the number of forest owners involved increased.

5. The result of every meeting was a better understanding of the system and its requirements. On this basis, the team developed suitable rules for common forest management. The main focus of these meetings was the formulation of objectives in the first phase, the organisational and legal framework in the second phase and the operational management in the third phase. Along with an invitation to the next workshop, the participants in the research process were confronted with the proposed resolutions.
6. At the end of several cycles, each providing new information, a better understanding of the system, and proposals for actions and resolutions, the former hypotheses were reviewed and thus new scientific knowledge generated. Moreover, the forest owners themselves developed a legal framework containing rules for governing the new commons in the local forest management regime.

Discussion and Conclusions

In both case studies a new commons was founded. Individual management rights were transferred to a forest owner association, but the right of selling the property remained with the individual forest owners. No changes were made to the land register. The associations tend their members' forest properties and make decisions concerning all management activities. Both new commons grant their members the option to extract fuel wood, and any profit made from the forest is transferred to the proprietors. The forest owners, as members of the cooperative, keep the ownership of their individual properties and take part – to a greater or lesser degree – in governing the cooperative. The legal and the executive heads of the associations are elected democratically. A legal framework regulates the relationship between the cooperative and its members (cf. fig. 2).

The sources of irritation proved to be a fundamental starting point of the successful process of change, helping to draw those who were concerned out of their routines. There were two main issues that helped forest owners overcome their passivity, which in some cases had lasted for many years. On the one hand, undirected processes in the forests fostered the cooperation of forest owners. At the same time, the target activities of the project prompted forest owners to reflect upon their own situation. In the SW-region it was primarily a bark beetle calamity which showed many forest owners that they personally were ill-equipped to face the challenges of modern forest management. The example of neighbours who lost their

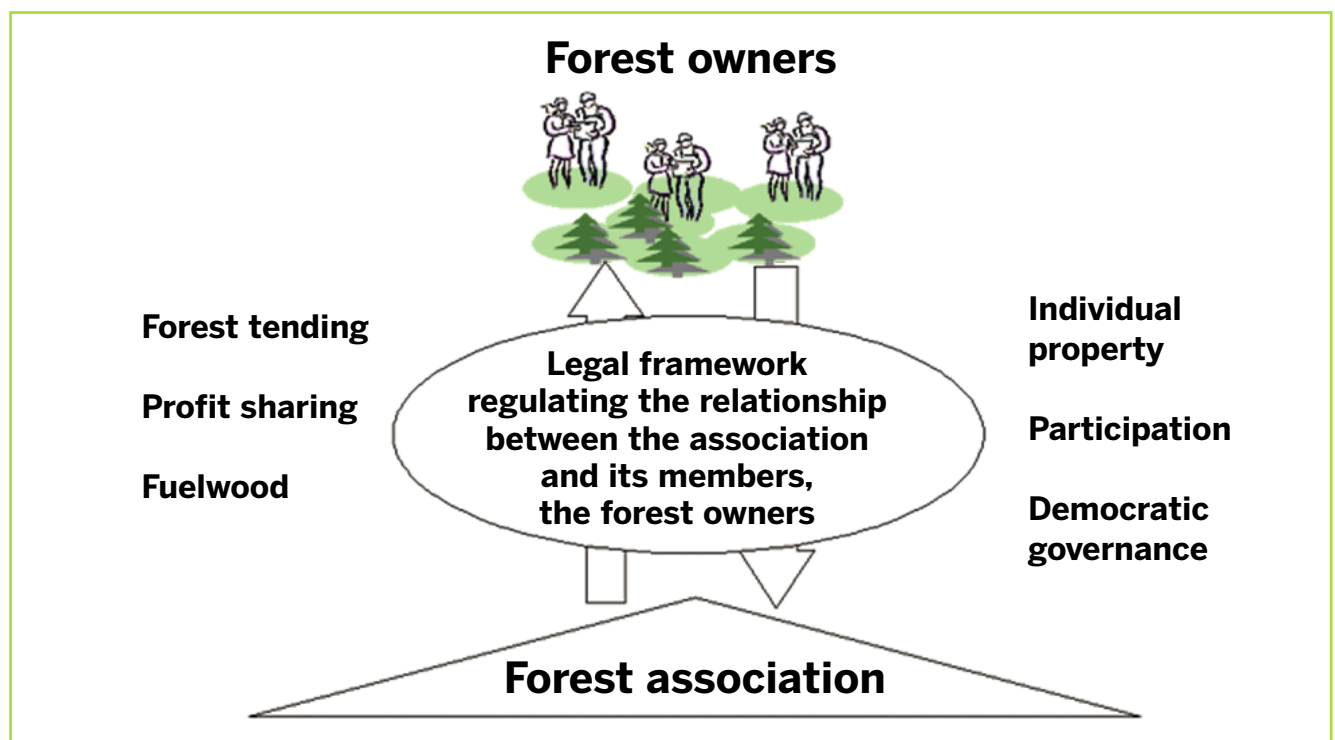


Figure 2: Organisation of new commons

forest stands due to failing to combat the bark beetle was taken up in the project, and analysed in cooperation with the forest owners, which motivated them to consider the risks arising from forest mismanagement.

In the case study NW-region, suspected changes in the federal extension policy and as well unclear property rights triggered individual thought processes. First, meetings and workshops helped to demonstrate that many forest owners shared objectives. The conducted surveys made clear that the preservation of the family inheritance to be passed on to the next generation was central and had fuelled the efforts of almost all forest owners. These results were confirmed in the workshops. The motto behind the initiative, of 'securing values, caring for nature, protecting property', was adopted as the main objective in the association's mission statement in the SW-region. In contrast, in the NW-region efficiency in forest management and self-supply with fuel wood developed as the most powerful arguments for establishing a new commons.

The interviews also revealed a surprising agreement in the willingness to transfer property rights to an organisation. The forest owners were asked whether they could envisage joining an association with a democratically elected management that assumes responsibility for making decisions concerning their forest properties. Half of the SW-region and two thirds of the NW-region of the forest owners replied, 'Yes, I am interested in a close cooperation. I could imagine transferring my rights to the association, but I want to remain the owner of the property'. However, the number of forest owners who expressed such an interest in the interviews and the actual number of founding members deviated greatly in the SW-region (Table 1). By contrast, there was a large overlap between those forest owners who participated in the workshops and those that ultimately joined the association. Therefore, it can be argued that the participation in the development of the new rules served to engender the forest owners' trust in them. The participation of the forest owners clearly facilitated a lot more than just the agreement over transferring the forest management decisions. The number of participants which were involved actively doubled over the course of the process. This was seen as further evidence that the participation principle triggered commitment to the process, and caused previously passive forest owners to care about their forests and its management.

The participation of stakeholders proved to be another crucial factor. Apart from the forest owners, regional stakeholders from the communities, forest administrations and conventional forestry associations were invited to all workshops and project meetings. For the process of formal recognition of this organisation it was indispensable that participants from a wide regional spectrum and

diverse professions were incorporated. This, however, caused practical problems because not all of the actors were sufficiently interested in becoming actively involved in the process. At the same time, the concern arose that rival actors might be attracted by the successes of the organisation.

Two further factors were also especially important for building the trust of forest owners in the newly created rules. The first was trust in an independent moderation. The whole process was guided by the authors of this paper, i.e. by a university institute. On the one hand, the funding was provided by the 'Nature Park Southern Black Forest', an organisation dedicated to regional development and on the other hand by the federal state of North Rhine-Westphalia. As a consequence, the participants were clearly removed from the sway of particular interests that usually comes together with financial support provided by representatives of either industry or nature conservation.

It also became clear that separating the general decision-making section from the operational management decision-making section was important for building trust. The former in the form of the association's general membership meeting, resided in the hands of the forest owners and the latter was with state contractors. Those forest owners with no forestry expertise in particular, advocated this separation. They saw the role of the forester as a guarantee for knowledge-based management decisions and, consequently, as a safeguard against the possibility of more proficient association members seeking to use their knowledge to dominate the organisation.

In conclusion, it was possible to master a whole range of regional anticommuns' problems. The newly created rules harbour promising requisites for a rapid development of the organisations and, they foster intensive forest management cooperation between many forest owners. New forms of commons have been established in the forestry sector alongside the traditional forms of communal management and the associated rules, which are often many hundreds of years old. The authors are confident that the basis provided for by this new set of rules prevents the occurrence of a 'tragedy'.

References

- ARGYRIS, C. and D. A. SCHÖN (1996): Organizational Learning II. Theory, Method and Practice. Boston: Addison-Wesley.
- ELANDS, B. and F. WIERSUM (eds.) (2003): Forestry and Rural Development in Europe. Research Results and Policy Implications of a Comparative European Study.

- Wageningen: Forest and Nature Conservation Policy Group, Report 2003-02.
- HARDIN, G. (1968): The tragedy of the commons. *Science* 162(3859): 1243-1248.
- HELLER, M. A. (1998): The tragedy of the anticommons. Property in the transition from Marx to market. *Harvard Law Review* 111(3): 622-688.
- HOGL, K.; PREGERNIG, M. and G. WEISS (2003): Wer sind Österreichs WaldeigentümerInnen? Einstellungen und Verhalten traditioneller und „neuer“ Waldeigentümergruppen im Vergleich. Discussion Papers of the Institute of Forest Sector Policy and Economics, P/2003-1. Vienna: University of Natural Resources and Applied Life Sciences.
- HOOGSTRA, M. A. and D. FLIER(2004): Kleine boseigenaren in Nederland. Leefstijlen en beheer. *Vakblad Natuur Bos en Landschap* 1(2004): 21-24.
- HOSTETTLER, M. (2003): Governance in der Waldwirtschaft. *Schweizer Zeitschrift für Forstwesen* 154(2): 42-50.
- KARPPINEN, H. (1998): Values and objectives of non-industrial private forest owners in Finland. *Silva Fennica* 32(1): 43-59.
- MCKEAN, M. (1992): Success on the commons. A comparative examination of institutions for common property resource management. *Journal of Theoretical Politics* 4(3): 247-281.
- OSTROM, E. (1990): *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge MA: Cambridge University Press.
- PARISI, F.; DEPOORTER, B. and N. Schulz (2005): Duality in property: Commons and anticommons. *International Review of Law and Economics* 25(4): 578-591.
- REASON, P and H. BRADBURY, H. (eds.) (2001): *Handbook of Action Research. Participative Inquiry and Practice*. London: Sage.
- SCHLAGER, E. and E. OSTROM (1992): Property-rights regimes and natural resources: A conceptual analysis. *Land Economics* 68(3): 249-262.
- SCHLÜTER, A. and U. SCHRAML, (2006): Managing Small-scale Private Forests, a New Commons? A paper submitted to the IASCP European Regional Meeting 'Building the European Commons: From Open Fields to Open Source', Brescia, Italy, 23-25 March 2006.
- SCHRAML, U. and U. HÄRDTER (2002): Urbanität von Waldbesitzern und von Personen ohne Waldeigentum. Folgerungen aus einer Bevölkerungsbefragung in Deutschland. *Allgemeine Forst- und Jagdzeitung* 173(7-8): 141-146.
- SCHULZ, N.; PARISI, F. and B. DEPORTER (2002): Fragmentation in property: Towards a general model. *Journal of Institutional and Theoretical Economics* 158(4): 594-613.
- SCHURR, C. (2006): Zwischen Allmende und Anti-Allmende. Eine Untersuchung zur Struktur und Strukturentwicklung des kleinflächigen privaten Waldeigentums unter den Bedingungen der gesellschaftlichen Transformation am Beispiel des Freistaates Sachsen. Inaugural-Dissertation zur Erlangung der Doktorwürde der Fakultät für Forst- und Umweltwissenschaften der Albert-Ludwigs-Universität Freiburg im Breisgau. Freiburg i.Br. 2006. Verfügbar bei <http://www.freidok.uni-freiburg.de/volltexte/2869/>.

Forest Commons Old and New: an Introduction to Community Woodlands in Great Britain

Anna Lawrence⁴

1 Introduction

Background

One of the recurring themes of our workshop at Burbach in October 2011 was the question of definitions – what are ‘forest commons’? We found that there are many shades of meaning, and that particular terms are not easily translated because they refer only to their particular context.

In Great Britain (GB), a ‘commons’ is a specific, legally defined bundle of land use rights, and does not refer to ownership at all. The terms ‘forest commons’ and ‘community forests’ (or more often ‘community woodlands’) mean different things. Historically there are no models that might be recognised as community forestry, and there is no tradition of community ownership of forest or land. However, community forestry is now a thriving movement.

At our workshop it was clear that we were interested in the whole range of possibilities for community involvement in forest management – whether through ownership or through governance. Communities and forests are changing their relationships rapidly across GB and there are many new models emerging which we can compare with experiences in continental Europe.

So this short paper is written with the benefit of hindsight. It aims to show how diverse and dynamic is the situation in GB. It points to the range of models for community ownership, use and management; and indicates some important differences between England, Scotland and Wales. It is hoped that this outline will serve as a contribution to our future work together on forest commons and community forests.

What is Great Britain?

This paper is about community forestry in Great Britain. The United Kingdom consists of the countries of England, Northern Ireland, Scotland and Wales, which each have their own governance arrangements. Within that, Great

Britain consists of England, Scotland and Wales. Most of the change in community forestry over the last 20 years has taken place in the constituent countries of Great Britain.

History, geography and politics

Shared (public, community or group) property rights to forests and woodland in Great Britain have emerged from a complex history and diverse geography across three historical nations, England, Scotland and Wales.

There are different legal, land tenure and governance systems in Scotland, England and Wales. Since 1997, some political power has been devolved to Scotland and Wales, including forest policy. Each country has increased its control over forestry and land rights since then, and has its own forest strategy.

The government’s forest department, the Forestry Commission, was set up in 1919, with responsibility for creating and managing its own forests, and motivating private owners to plant and manage their forests. Since 2001, the Forestry Commission has functioned in three parts, one for each of Wales, Scotland and England. Although still operating under a GB umbrella, they have developed their own organisational cultures, structures and relationships with government and local communities.

Research on community forestry in Great Britain

This paper draws on a number of recent studies of community forestry but limitations of space mean that it can only outline some of the current trends. There is as yet very little published peer reviewed academic research in this field, but the fast pace of change, and the politically high profile, have attracted recent attention and evidence (listed in box 1). Much of this evidence was drawn together and put in an international context, in an evidence review commissioned for the Independent Panel on Forestry, which is advising on change to England’s forest policy. The evidence review can be found at <http://www.defra.gov.uk/forestrypanel/views/> (LAWRENCE and MOLTENO 2012).

⁴ Dr. Anna Lawrence, Forestry Commission Great Britain, Forest Research, Roslin, EH25 8SY, United Kingdom, anna.lawrence@forestry.gsi.gov.uk

Box 1: Studies of community forestry in GB

- In 2000 the Caledonia Centre for Social Development documented detailed case studies of social land ownership in the Highland and Islands of Scotland, and has continued to add to this set of case studies (see www.caledonia.org.uk/socialland/case.htm) several of which include community woodland.
- In 2004 Forestry Commission Scotland commissioned a three-year study of the social value of Scotland's woodlands, which included a section on community woodlands (EDWARDS et al. 2009).
- In 2004 Forestry Commission Scotland commissioned sets of case studies on community partnerships on the national forest estate (FOWLER and STIVEN 2005) and community involvement in private woodlands (PIPER and VILLANI 2004).
- In 2006, the Community Woodlands Association (Scotland) in partnership with Forestry Commission Scotland (FCS) and Highlands and Islands Enterprise commissioned an overview of experience of FCS-community partnership working over the last 10 years and how it is perceived by both communities and FCS District staff (CAMPBELL and BRYAN 2006).
- In 2008 Forest Research concluded an evaluation of the Cydcoed programme in Wales, which supported the formation of 139 community woodland groups (OWEN et al. 2008).
- In 2008 Forest Research organised a seminar as part of the International Association for the Study of the Commons, at which three community forestry policy advisers and programme managers compared developments in England Scotland and Wales (LAWRENCE et al. 2009).
- In 2009 Forest Research commissioned a set of three 'baseline studies'. These were intended to complement the policy view expressed at the IASC seminar, by inviting practitioners and non-government stakeholders to document the development of community woodlands in each of Scotland, Wales and England (CALVERT 2009, POLLARD and TIDEY 2009, WILMOT and HARRIS 2009). This was followed by an update in England the following year, by the Small Woods Association, which focused on community group needs (TIDEY and POLLARD 2010). These have been summarised in LAWRENCE et al. 2011.
- In 2009 Forestry Commission Wales commissioned a survey of community woodlands in Wales, and a set of case studies (WAVEHILL CONSULTING 2010).
- In 2010 Forest Research reviewed the evidence for impact of community woodlands and forests in Great Britain (LAWRENCE and AMBROSE-OJI 2011).
- In 2010 the Community Woodlands Association (of Scotland) reviewed the mechanisms to support community engagement with forestry (COMMUNITY WOODLANDS ASSOCIATION 2010).
- In 2011 the Mersey Forest, Llais y Goedwig, Woodland Trust and Forest Research organised a workshop to share experiences of community woodlands across the three countries, although in the event it was mostly attended by English groups (FOREST RESEARCH et al. 2011).
- In 2011 and ongoing, members of Llais y Goedwig (the Welsh association of community woodland groups) commissioned a set of case studies with strong involvement of the community groups. (<http://llaisygoedwig.org.uk/what-we-do/case-studies/>).

Data about community forests

In GB we talk about both community forests and community woodlands. The term 'community woodland' is more common when talking about a smaller area, not necessarily managed for wood production, perhaps more often for conservation, recreation and education. A woodland is often understood to be a 'community woodland' when a community group has a role in management decisions. It may or may not own the woodland. This definition does

not include groups which are simply carrying out voluntary work, or woodlands which exist as a recreational resource, important though such groups and resources are.

Taking this definition of community woodland, various sources have estimated the number of community woodland groups in GB. According to the evidence summarised in table 2, there are about 700 such groups. Some of these are owned by the communities and many more are managed in partnership with private or public sector owners.

Table 1: Estimated numbers of community woodlands in the three countries of Great Britain

Country	Source	Number of community woodlands
Scotland	Community Woodlands Association 2010	150 community management groups 90-100 community partnership groups
	EDWARDS et al. 2008	138 community groups 13,500 members
England	TIDEY and POLLARD 2010	about 300
	Community forests www.communityforest.org.uk/	Originally 12 (currently 7)
Wales	Cydoed projects OWEN 2008	163 projects
	WAVEHILL CONSULTING 2010	138 active groups

Data about forests and ownership

As indicated above, ownership is not necessary for a woodland to be a 'community woodland', but it is one way in which communities can take control of woodland management. It is difficult to know how many such woodlands exist, by referring to national data. Official statistics about forest ownership in GB are based on data collected in 1995-99. They suggest that 4 % of England's forests are common property, while 0 % of Scotland's forests are common property (www.forestry.gov.uk/website/forstats2009.nsf). However this clearly overlooks the many woodlands owned by community groups in Scotland. The next forest inventory (due to be completed in 2014) may show this more clearly.

However the problem is also one of definition of land tenure categories. 'Commons' are legally defined but not always registered (SHORT 2008), while 'community property' may be recorded as private or company property. A more proactive research approach may be needed to understand the extent of community ownership. Another relevant category is land owned by local government, and this is available within the forest inventory data. The information from combined sources is summarised in table 2.

2 Some current models of community forests

2.1 Wooded commons

'Commons' are areas of land which are privately owned but where named 'commoners' hold use rights. Those areas of woodland which are legally commons are, as indicated above, not widespread. Loss of commons followed widespread enclosure of formerly common land in the 17th and 18th centuries, often effectively large scale privatisation of land by the aristocracy. Enclosure also took place in Scotland, but the Clearances are more vivid in national memory, whereby tenants were evicted from traditional lands in the 18th and 19th centuries, by newly capitalised landlords. In addition, the feudal system in Scotland enabled those with property to appropriate most of the earlier common land (WIGHTMAN, CALLANDER, and BOYD 2004).

In England about 3 % of the land is now 'commons' but very little of this is forest. There are some commons which have become wooded through the regeneration of scrub. There are also some Royal Forests, ancient hunting

Table 2: Facts about forest cover and ownership in the countries of Great Britain

Country	Forest cover (% of total land)	Commons (% of total land)	Local government woodland (% of total forest)
England	10	3	5
Scotland	18	Very little – difficult to define as 'commons'	1
Wales	15	7	4

Sources: (<http://www.naturalengland.org.uk/ourwork/farming/commonland/default.aspx>; SHORT 2008; WIGHTMAN, CALLANDER, and BOYD 2004; <http://www.forestry.gov.uk/statistics>).

forests with specific 'commoners' rights, particularly the Forest of Dean and the New Forest. Such areas have maintained, or resurrected, medieval governance structures which are specific to those forests. Rights are held by named commoners, and these allow them to collect firewood and graze particular animals. Such rights are not usually accessible to others. These traditional models occur in particular historic landscapes (which despite the name 'forest' are not necessarily covered with trees) and such an approach would not be easily created anew, in other areas.

There is no surviving equivalent of the Royal Forests, nor commons, in Scotland. In a contrasting, but also historical model, common land is held in the crofting land use system in some parts of Scotland. Crofting is a form of tenancy unique to rural Scotland (mainly in the Highlands and Islands), where small scale farmers share common grazing lands. Until recent land reform laws, crofters had no right to plant or use trees or woodland. The Crofter Forestry (Scotland) Act 1991 gave crofting tenants additional rights to create and own woodland (BROWN 2008).

These models form part of the historical context to community forestry, and the current diversity of approaches. Other approaches are emerging as described in the next sections.

2.2 Local Authority woodlands

One model of community forestry that is prevalent in continental Europe is that of ownership by local government. As can be seen in table 1, only a small proportion of forests and woodlands in GB are owned by local authorities (between 1 and 5 %). However, their significance increases when community forestry is considered. For example, a study of community woodlands in England found that of 22 community woodlands sampled, 50 % were owned by local authorities (POLLARD and TIDEY 2009).

There is an important difference here, however, in comparison with the communal forests of (for example) Germany, France or Italy. These British community woodlands are owned. It is the (separate and independent) formation of a community group, based on their personal interest and motivation, which makes these community woodlands. It is not the local government which constitutes the 'community'. In fact, of the 11 community woodlands owned by local authorities, Pollard and Tidey found that only two had formal management agreements with the community groups.

This form of community forestry in GB is currently lacking data, and merits more study.

2.3 Public forest for public benefit

Throughout the 1990s, in common with global political changes, the emphasis on public spending in the UK shifted to a discourse of 'public benefit' along with a global shift in forest policy discourse, to 'multifunctional forestry' or multiple benefits (e.g. NAIL 2008). This has seen the emergence of a whole new area of social forest policy. Each of the forestry strategies in England, Wales and Scotland has a section focused on community development and social benefits of forests.

One way in which this shift has taken shape is through the purchase of land by the Forestry Commission, specifically for reforestation – particularly land which has been degraded through industrial use. Such 'regeneration' projects have become highlights of the work of the Forestry Commission, for example the Newlands project in north-west England. Described on its website as 'a unique £59 million scheme that is reclaiming large areas of derelict, underused and neglected land across England's Northwest'. It aims to transform 'some of the worst areas of neglected land in the Northwest ... into thriving, durable, community woodlands' (<http://www.newlandsproject.co.uk/>).

Similar approaches have been taken in Scotland, where the focus on public forest in urban areas has been supported by the 'repositioning policy'. Under this, 'FCS sells land and forests contributing least to delivery of public benefits and uses the proceeds to invest in projects, particularly land acquisition for woodland creation, which contribute significantly to the delivery of the Government's Scottish Forestry Strategy. (<http://www.forestry.gov.uk/forestry/INFD-8F8EL5>). One of the criteria for new land bought through this policy, is that it should be located near to centres of population, so that it can contribute to delivering the 'Woods In and Around Towns' initiative which focuses on creating and improving woodland in the most deprived, populated areas.

Woodlands created under these policies and programmes are included here, because they are often described as 'community woodlands' (see for example the description quoted from the Newlands website above). However, they would not necessarily meet the widely accepted definition of community woodlands as having 'some degree of responsibility and authority for forest management formally vested in the community' (CHARNLEY and POE 2007). There is a tendency for state approaches to community woodlands to include woodlands created for, rather than by, the communities, but the Forestry Commission in each country has invested considerably in evaluating the benefits for local people, and is moving towards more local input in design and management (see e.g. <http://www.forestry.gov.uk/wiat>).

2.4 Community owned woodlands

Some community woodlands are owned by community groups. This is a recent trend; the first community purchase of a woodland was Wooplaw, in the Scottish Borders, in 1986. The early examples of community woodland purchase were often individual cases led by active community groups, and woodland was bought in the face of scepticism about the ability of such groups to manage woodland. Accumulated experience and recent policy developments however have opened new possibilities. These are very largely the result of campaigns over many years, by people living in rural communities, for a change in land rights and distribution (MATHESON 2000, RITCHIE and HAGGITH 2005).

The most concrete change is the Land Reform (Scotland) Act 2003 which introduced the 'community-right-to-buy', giving rural communities in Scotland the first option to buy when an estate comes on the market. Since 2006 Forestry Commission Scotland has taken this further with its 'National Forest Land Scheme' (NFLS), which allows rural communities to buy forest from the state, even if it not currently for sale, as long as they can demonstrate public benefit, and raise the funds to buy at market prices. The community group making the purchase must be open to all residents within a post code area, and must form a legal entity to own the forest. This scheme has supported the sale of nearly 3,000 ha, with a further 2,000 ha approved. Some case studies are described in LAWRENCE (2009).

In Wales a new programme called 'Woodlands and You' provides new opportunities for communities to buy or lease public forest. In England, the Localism Act (2011) provides a 'community right to bid' to help community groups compete with others potential buyers, for community assets which may include land or potentially woodland.

2.5 The Community Forests (England)

One very particular use of the phrase 'Community Forest' refers to an initiative in England, which emerged in the late 1980s. The summary provided here is adapted from the contribution made by Paul Nolan to LAWRENCE et al. (2009). The programme began with three Community Forests in 1989, followed by nine further forests launched in 1991. In these cases the Community Forests are not a single area of woodland, nor are they under any single form of ownership. Instead they are large peri-urban areas intended to form multi-purpose forests consisting of a network of community woodlands and other landscape features, in a mosaic of different ownership types. The 12 original forests shared four objectives:

- Economic regeneration (improving image of areas)

- Economic development (employment and rural diversification)
- Social welfare (through education, health and recreation opportunities)
- Environmental improvements (remediation of derelict land, creating new habitat, tackling climate change).

A wider goal is to 'create Community Forests that are cherished by local communities'. The idea of the Community Forests grew out of the growing focus on urban forestry in the 1980s, and the name 'Community Forests' was chosen as a title that satisfied various agencies who did not like the sound of 'Urban Forests' or 'City Forests' (JOHNSTON 1999).

Whilst there are some obvious comparisons with the public forests mentioned above, the Community Forests are not government projects. Instead they each began from a local authority-led partnership, with support from public agencies. The task of the partnership was to establish Core Teams which in turn were responsible for outreach, funding and liaison with communities and organisations.

Some of the Community Forests have been highly successful, and have evolved to meet new policy challenges. For example, the Mersey Forest is now leading new initiatives on Green Infrastructure, mapping opportunities and creating networks for people and biodiversity. Like the public forests highlighted above, these are not what might be called community woodlands elsewhere – the level of community involvement in decision making is not always high. But there have been impressive contributions to tree planting by local people (see www.merseyforest.org.uk/), and within the wider matrix of the Community Forest, there are many individual community woodlands where local groups make the decisions.

2.6 Many other models ...

This brief overview has shown the role of traditional tenure arrangements, community ownership, public agencies and large scale local authority partnerships in community woodlands, but these do not cover all the options. For example, a survey in Wales in 2010 found that community tenure includes ownership, lease, verbal agreement, or formal agreement, with Forestry Commission Wales, or a local authority, or a private landowner, or an environmental NGO (WAVEHILL CONSULTING 2010). The group may structure itself as a cooperative, charity, trust, company limited by guarantee, or may not be formalised at all. Three sets of case studies show how these structures and arrangements can grow and evolve, and illustrate the current dynamic situation (<http://llaisygoedwig.org.uk/what-we-do/case-studies;> <http://www.forestry.gov.uk/fr/INFD-8Y2BS8>)

3 Summary

Community forestry in Great Britain is a diverse and dynamic area. The three countries of Great Britain differ both in land tenure history and law, and in current forest policy and practice. Commons are areas of (usually) ancient use rights held by specific users, and have been much reduced since 18th century. There is no tradition of community-owned forests, nor of local government forests, but both are becoming increasingly significant. Since the late 1980s, public forests have increasingly been managed for social benefit, and other land use partnerships have highlighted the benefits of forests in urban areas. Recent reforms are opening opportunities for communities to buy forest particularly in Scotland. Given the choice however not all communities prefer to own the woodland, and community forestry is defined by power and decision-making, not solely by ownership.

4 Bibliography

- BROWN, A. P. (2008): Crofter forestry, land reform and the ideology of community. *Social and Legal Studies* 17: 333-349.
- CALVERT, A. (2009): Community forestry in Scotland: a report for Forest Research. Available at: <http://www.forestresearch.gov.uk/fr/INFD-7TSD7E>.
- CAMPBELL, L. and A. BRYAN (2006): Evaluation of partnerships between community groups and Forestry Commission Scotland. A study for Community Woodlands Association. Kiltarlity and Beaulay: Campbell Consulting (Highland) Ltd. Available at: [http://www.forestry.gov.uk/pdf/CWAFinalReport21June.pdf/\\$FILE/CWAFinalReport21June.pdf](http://www.forestry.gov.uk/pdf/CWAFinalReport21June.pdf/$FILE/CWAFinalReport21June.pdf).
- CHARNLEY, S. and M. R. POE (2007): Community forestry in theory and practice: Where are we now? *Annual Review of Anthropology* 36: 301-336.
- COMMUNITY WOODLANDS ASSOCIATION (ed.) (2010): The mechanisms to support community engagement with forestry: a review. Forres, Moray: Community Woodlands Association.
- EDWARDS, D.; ELLIOTT, A.; HISLOP, M.; MARTIN, S.; MORRIS, J.; O'BRIEN, L.; PEACE, A.; SARAJEVS, V.; SER-RAND, M., and G. VALATIN (2009): A valuation of the economic and social contribution of forestry for people in Scotland. Edinburgh: Forestry Commission.
- FOREST RESEARCH, MERSEY FOREST, WOODLAND TRUST, and LLAIS Y GOEDWIG (eds.) (2011): *Civil Society, Communities and Woodlands: Key messages from a meeting to share experience and discuss emerging opportunities*. Kiltarlity and Beaulay: Campbell Consulting (Highland) Ltd. Available at: <http://www.forestry.gov.uk/fr/INFD-7TSD7E>.
- FOWLER, J. and R. STIVEN (2005): Community partnerships on the national forest estate. Edinburgh: Forestry Commission Scotland. Available at: <http://www.forestry.gov.uk/forestry/INFD-7Q4J6R>.
- JOHNSTON, M. (1999): The springtime of urban forestry in Britain - Developments between the 1st and 3rd conferences, 1988-1993. Part I. *Arboricultural Journal* 23: 233-260.
- LAWRENCE, A. (2009): Community experiences of the National Forest Land Scheme. Roslin, Midlothian: Forest Research. Available at: <http://www.forestresearch.gov.uk/fr/INFD-7TSD7E>.
- LAWRENCE, A. and B. AMBROSE-OJI (2011): "Understanding the effects of community woodlands and forests in Great Britain. In: Proceedings of the 18th Commonwealth Forestry Conference, Edinburgh, UK, 28 June-2 July 2010." Available at: <http://www.cfc2010.org/papers/session11/Lawrence-s11.pdf>.
- LAWRENCE, A.; ANGLEZARKE, B.; FROST, B.; NOLAN, P., and R. OWEN (2009): What does community forestry mean in a devolved Great Britain? *International Forestry Review* 11: 281-297.
- LAWRENCE, A. and S. MOLTENO (2012): Community forest governance: a rapid evidence review. A report by Forest Research on behalf of the Independent Panel on Forestry. Roslin, Midlothian: Forest Research Available at: <http://www.defra.gov.uk/forestrypanel/views/>.
- LAWRENCE, A.; WILMOT, Z.; TIDEY, P.; POLLARD, A.; HOLLINGDALE, J.; HARRIS, K.; CALVERT, A., and B. AMBROSE-OJI (2011): "The evolution of community woodlands in Scotland, Wales and England." In: AMBROSE-OJI, B. and K. FANCETT (eds.): *Woods and Forests in British Society: Progress in research and practice*. Farnham: Forest Research, pp. 74-80. Available at: <http://www.forestry.gov.uk/website/forestresearch.nsf/ByUnique/INFD-8FGH9Y>.
- MATHESON, C. (2000): "Abriachan Forest Trust". In: BOYD, G. and D. REID (eds.): *Social land ownership: eight case studies from the Highlands and Islands of Scotland*. Edinburgh: Scottish Community Learning. Available at: <http://www.caledonia.org.uk/socialland/abriacha.htm>.
- NAIL, S. (2008): Forest policies and social change in England. Vol. VI. *World Forests*. Berlin, New York: Springer.
- OWEN, R.; POWELL, J.; REED, M.; KAMBITES, C., and N. LEWIS (2008): An evaluation of Cydcoed: the social and economic benefits of using trees and woodlands for community development in Wales. Aberystwyth, Ceredigion: Forest Research. Available at: [http://www.forestry.gov.uk/pdf/Cydcoed_final_report_Jan09.pdf/\\$FILE/Cydcoed_final_report_Jan09.pdf](http://www.forestry.gov.uk/pdf/Cydcoed_final_report_Jan09.pdf/$FILE/Cydcoed_final_report_Jan09.pdf).
- PIPER, C. and F. VILLANI (2004): Community involvement in private woodlands. Edinburgh: Forestry Commission Scotland. Available at: <http://www.forestry.gov.uk/forestry/INFD-7Q4J6R>.
- POLLARD, A. and P. TIDEY (2009): *Community woodlands in England. Baseline report for Forest Research*. Coalbrookdale, Telford: Small Woods Association.

Available at: <http://www.forestresearch.gov.uk/fr/INFD-7TSD7E>.

RITCHIE, B. and M. HAGGITH (2005): "The push-me pull-you of forest devolution in Scotland". In: COLFER, C. J. P. and D. CAPISTRANO (eds.): The politics of decentralization: forests, people and power. London: Earthscan, pp. 212-228.

SHORT, C. (2008): The traditional commons of England and Wales in the twenty-first century: meeting new and old challenges. *International Journal of the Commons* 2: 192-221.

TIDEY, P. and A. POLLARD (2010): Characterising Community Woodlands in England and Exploring Support Needs. Report for Forest Research. Coalbrookdale, Telford. Small Woods Association. Available at:

<http://www.forestresearch.gov.uk/fr/INFD-7TSD7E>.

WAVEHILL CONSULTING (2010): A survey of Community Woodland Groups in Wales: Report of main findings. Report to Forestry Commission Wales. Aberaeron, Ceredigion: Wavehill Consulting. Available at:

<http://www.forestry.gov.uk/forestry/INFD-8GJFB5>.

WIGHTMAN, A.; CALLANDER, R. and G. BOYD (2004): Common Land in Scotland: A Brief Overview. Caledonia Centre for Social Development.

WILMOT, A./ and K. HARRIS (2009): "Community woodland baseline report: Wales". Aberaeron, Ceredigion: Forest Research. Available at:

<http://www.forestresearch.gov.uk/fr/INFD-7TSD7E>.

Slovenian Forest Commons – Cases of Collective Resource Management

Nevenka Bogataj⁵, Iztok Mlekuž⁶, Štefanija Šebalj Mikše⁷, Janez Krč⁸

Summary

Weakly known institutional arrangement of forest commons is studied on the basis of the literature overview and case studies. Particular attention is given to the contextualisation of vertical relations, developmental factors and their interpretation in the framework of the common pool resources concept. On this basis we propose four main elements, defining Slovenian (forest) commons, and features of this “collective game” culture in Slovenia worth of further research.

Keywords: forest commons, forest management, community, Slovenia.

1 Introduction and the aim of the study

Forest commons are weakly known in Slovenia, where a legislative discourse prevails in the last two decades and efforts of active commoners. However, a wide and colourful practice, rooted in times of settlement of the area, defined also by the last centuries role still exists and challenges present society.

Slovenian context of commons might be described by the following general characteristics:

- Cultural diversity due to a geographical and cultural crossroad between Slavic, Germanic and Roman culture
- Natural diversity due to linking of Alps, Mediterranean, Dinaric and Pannonian area
- Relatively frequent political and economic changes (in average every four to six decades), which is not without effect to local societies learning potential.

We can consider it from different angles, e.g. cover change from pastures into forests, community and its structure/role changes, common pool resources debate, geographical or historical characteristics: but their functioning strongly depends from participation. Slovenian participation in the history rose in two periods: 1850-1940 and 1995-1999 (BAHOVEC 2010). These periods correspond with Slovenian commons revival according to the data available. Consequently our interpretation takes this potential developmental context into consideration.

The aim of our analysis is to get an insight into Slovenian practice on the basis of two case studies and already published data on forest commons. Literature overview provided the outstanding focus on the legislative problems, while other professional fields are weakly covered. Geographers were the first to provide statistical overview, while forestry provides case studies, traditionally focused to wood management, with two exceptions studying their historical and social background (BOGATAJ 1989, LOGAR 2001). Recent recession period put forest commons into focus, but according to our understanding more from the authoritative point of view than from the standpoint of their other roles and values.

Our primary focus has therefore been in-depth analysis from the bottom up perspective. Lack of data about the basic understanding of this property type steered us into qualitative approach in order to collect the very basic information. In the pilot phase we looked for cases which would represent two geographical regions, Dinaric and Alpine, both at the west border due to statistics about their relatively high surface, productive value and common historical path. Another argument proved to be relatively lively functioning of pilot cases and availability of interviewees.

1.1 Terminology and definition proposal

The first challenge proved to be a definition of a forest common (FC). Slovenian terminology defines commons as “agrarian commons”. We assume that the reason lays in the primarily agrarian historical role of FC until the end of World War II and legislative documents, creating a discourse on commons. Forestry is still regarded as an agrarian professional field, at the moment officially a part of the Ministry of Agriculture, Forestry and Food. This term is officially and practically widely used but not the only one existing.

Our field work revealed plenty of other terms which seem to contain essential messages. One of such messages is that the historical development of the area was historically under three legislative authorities: Roman, Germanic

⁵ Dr. Nevenka Bogataj, Slovenian Institute for Adult Education (SIAE), Ljubljana, Slovenia; Andragoški center Slovenije, Ljubljana, Slovenija, nevenka.bogataj@acs.si

⁶ Iztok Mlekuž, Slovenian Forest Service, Tolmin, Slovenia; Zavod za gozdove Slovenije, Območna enota Tolmin, Krajevna enota Bovec, iztok.mlekuz@zgs.gov.si

⁷ Štefanija Šebalj Mikše, Univ. Dipl.oec., Cerknica, Slovenia; Agrarna skupnost Cerknica, 1380 Cerknica, stefanija.sebalj@gmail.com

⁸ Prof. Dr. Janez Krč, Biotechnical Faculty, University of Ljubljana, Slovenia; Oddelek za gozdarstvo in obnovljive gozdne vire, BF, Univerza v Ljubljani, janez.krc@bf.uni-lj.si

and Slavic one. This fact, reflected in language, brings out slight differentiations between the meanings of terms, so these should be considered carefully (e.g. Italian term “ius” means “a use right” while widely used term “gmajna” (comp. after German “Gemeinde”) means a resource, being a forest or a community or even both at the same time. “Gmajna” is a typical Slovenian term for a forest not only in the Alpine area and regardless the ownership type. In old-fashioned use it also indicates community itself.

A term “forest commons” will therefore reflect new circumstances, developed in the very recent decades, when forest covered the most of the common land where the culture of common rules remain and even revive, and have never been understood other way than as a balance between (use and ownership) rights and (maintenance and care) duties.

We identified four main elements of Slovenian (forest) commons, which we regard as characteristic for common setting and common pool resource management:

- an organisational setting of a (relatively) small group,
- local membership of its participants,
- common needs and goals, usually (necessarily?) incorporating economic interest (once predominantly pasturage on grassland and/or fuel wood),
- commonly owned and managed property regardless legislative type (common, co-ownership)
 - specific relationships in (this) group, with the surrounding (local) community and with the natural resource they possess.

We identified several examples of active role in relation to state prescribed procedures (e.g. buying of land, land division, denationalisation, organisation of the association etc.), so we understand Slovenian commons as reviving part of society, which link past with the present and the future.



View of Cerknica

2 Methodology

Literature overview provided an insight into the recent interest in commons, structured into professional areas and organisational levels (local, regional, state). Due to the lack of statistical overview case studies selection has been done on the basis of the data availability and geographical representation – we were looking for an Alpine and Dinaric case due to their general presence, common history and forest share.

Cases were analysed from their quantitative and qualitative point of view. Particularly we focused on the qualitative data. Particular attention has been given to the local understandings and descriptions of the basic terms, functioning of commons, their historical experience and future perspective. Comparative evaluation between the past (regardless the period) and the present enabled us to identify crucial developmental changes and impacts which could be used as valuable guidelines for future development of common resource management. Two cases from the different geographical contexts (Dinaric, Alpine) provide an insight into situation in Slovenia. The selection criteria were: sound property area, predominant cover of forests, active management. We noticed and considered their accent that their revenue has not been divided among shareholders from their reestablishment in the nineties on. Their linking social capital, entitling vertical direction of communication between institutional arrangements (local, state), has been considered.

3 Results

A serious decline of common property from 20 % in 1947 to 3.5 % in 2007 (PETEK in URBANC 2007) has been identified in Slovenia. The number of commons in the period dropped from over 2,000 entities to generally 660. Their distribution over the country is unequal, varying from zero to over sixty commons per municipality.

The main problems identified on the meeting of “active survivors” in 2011 are as follows:

- Slovenian FC is not a legal entity, despite their statutes;
- elected management boards are not recognised as representative for the state authorities;
- new commons want to register, but this is not possible;
- legal practices of inheritance procedures differ;
- no-one covers / is responsible for the issue on the state level;
- FCs are regarded as private property and not as a particular property type;
- traditional rule of 100 % agreement is hard to reach, so management is limited to regular maintenance. Innovative management approaches are practically impossible.

Time brought at least two huge changes: general economic independency from the property as a resource and diversification of expectations, goals that forest commoners have. Inactive individuals usually promote pure financial profit; their inactivity also heavily hinders management. However, initiatives to overcome such situation exist; a new association starts and legislative changes are promoted heavily. A situation is illustrated by two cases, carefully selected and studied by ŠEBALJ-MIKŠE (2011) and MLEKUŽ (2011).

4 Case studies

Cerknica is a rural settlement with over 3,500 inhabitants, situated app. 50 km from the Slovenian capital Ljubljana on the typical Dinaric karst plateau of karst lakes. Precipitation is high (over 1,800 mm/yearly). The area is famous for its karst lake, typical for its yearly water regime and surrounded by forests. In the history agricultural land use prevailed, today most of inhabitants daily drive to the nearby Ljubljana. App. 30,000 yearly visitors of the area were identified causing a certain pressure to ecosystems, but also as an opportunity in terms of tourism.

A Cerknica common is documented from the middle of the 19th century land reform on. Common land, once pastures (today 520 ha of forests and 10 ha of pasture), is mostly at the south exposition. It has always been managed according common oral rules which have been turned into written ones in the 19th century. In 1897 fifty-four members of the common proposed property division what indicates that such type of management proved to be quite a challenge (ŠEBALJ MIKŠE 2011). The process has never been finished and once again initiated just before World War II, when already more than 200 members were identified. In 1948 and

1951 (ibid.) this property has been nationalised and a common abolished. Re-registration was done in 1996 while denationalisation took place in 2000 for the cited area, which is not the whole property of the common (ŠEBALJ-MIKŠE 2011). Oral and old written rules are widely known among commoners, however interests are diverse and initiatives for the division of this property exist.

A common today consists of 270 non-fixed number of shareholders with unequal shares. Forests are managed according to the state forest plans and a common will. Major earnings are from wood (ca 700 m³/year, mostly spruce) and additionally from estate renting. Tending and cuttings are both done by professionals. A forest common wants to keep manual (not mechanized) technology of forest operation in the future. Forest management on the base of sustainable principles is planned by the State Forest Service.

The most of procedures continue a culture of common decision making. Heritage is considered as a common starting point. Present leadership put attention to the balance between wood production, recreation and ecological role of forests surrounding the Cerknica settlement and the karst lake. Most participants refuse real estate sale. Their general developmental vision is according to ŠEBALJ MIKŠE (2011):

- to finish official procedures of registering and inheritance
- to manage income efficiently (revenue not divided yet, to keep voluntary management of a forest common)
- to improve the balance between rights and duties
- to keep technical and cultural heritage
- to add value wherever possible
- to achieve recognition by others, in particular by younger generation
- to make a forest common a binding entity for local people and at the same time transmit ecological wisdom of previous generations to the future ones.



View of Čezsoča

Čezsoča is a small Alpine valley settlement with app. 300 inhabitants. The distance to the nearest town of Nova Gorica is app. 75 km. Average yearly precipitation exceeds 2,000 mm. Alpine mixture of spruce (*Picea abies*), beech (*Fagus sylvatica*), pine (*Pinus mugo*) and others cover steep slopes and diverse expositions, from 400 to 1,500 m a.s.l. Ten forest commons were identified in the valley, together covering 9,767 ha area (MLEKUŽ 2011). Their history is lively, consisting of authorities change, including conflicts between the commoners and authorities and land reform in 1869, when property came under the ownership of the local community (MLEKUŽ 2011). This means that official languages, schooling systems, legislative rules and currencies has been constantly changing.

However, organisational structure of commons remained and common interest for pastures prevented division of the land. The most serious impact was caused after the World War II when legislative abolishment of forest commons came into force in 1947. Socialistic Yugoslavia nationalized common property and transformed it into "general people property". Cooperatives were introduced instead in 1965, while inhabitants kept rights of covering domestic needs in form of "stumpage". In 1994 an Act on reestablishment of agricultural communities and restitution of their property and rights came into force, but a right of reestablishment expired in 2001.

The process of inheritance and updating of official documentation for most of the commons has not been finished up to now. However it is clear that individual property has never been the case due to an overall practice of common or community property at least in the Alpine region. Some Alpine meadows are an exception, they were bought, but in certain period a local community provided tax payment and therefore it became a co-owner.

Most of the common property of the valley commons are forests (58 % or 4,818 ha), 4,949 ha are pastures and unproductive land. A forest common of Čezsoča has a fixed number of members (77) with unequal shares on the 2,434 ha property and only 39 % of productive forests. Their major income is from forestry (auction of app. 1,200 m³/year), additional income from estates and land renting. Members domestic necessity is app. 300 m³/year, while revenue has been not divided yet. Cutting is done by professionals, recreational role is important in summer and along the river only, while sustainability provided through state professional plans. Cooperation with Forestry Service is evaluated as excellent (both sides). They mainly invest into new skidding trails (1,000 - 2,000 m/year), forest roads maintenance, minimizing forest operational costs and local village infrastructure.

In the framework of initial enthusiasm and illusions, commons renaissance in the area developed a model case of

Čezsoča with a clear vision of the further development (MLEKUŽ 2011):

- to build infrastructure to enable use of distant parts of property,
- to manage income efficiently (revenue not divided yet),
- to keep internal ties and the ties with the local community (to balance between rights and duties e.g. volunteering),
- to transmit tradition to younger generations.

5 Discussion

The pilot qualitative insight into Slovenian FC provided a sketch of historically based culture of "collective game", based on volunteering, modest but active management and an opportunity given by the change of property cover from pastures into forests. Our discussion is based on four features of this culture:

- the face to face balancing between people, originally and usually of local origin and residency;
- the balance between rights and duties in horizontal direction (internal relationship among the commoners) and bottom up based efforts to reach vertical recognition and impact (external relationship);
- the prevailing goal of active commoners and professionals for reaching sustainability based on knowledge and practical experience with the response of natural resource to human management in the long-time period;
- the role of experience in considering limitations (e.g. limited productive potential of common land, usually situated on the least productive pastures, slopes, limited rights in non-democratic regimes ruling the area in the last century).

Case studies show that long-time profits are based on the long-term complex relationship and not on pure profits of the limited number of decision makers. There are at least two directions of these relations: social relations (horizontal and vertical) and resource management.

Older inhabitants of both cases served as a model of successful autonomous early birds in self-organization and forest management. They revived an old organizational form and today they face an activation trend of younger members. Another common characteristic is a strong will and (up to now) no revenue delivering. However, initial enthusiasm of the teams studied, did not prove to impact (yet?) the nearby forest commons which do not function the way described for the two cases. The Alpine case is the one among the ten in the valley which has a clear future perspective. The Dinaric case is coping with other challenges: huge number of participants, some of them inactive, unfinished procedures of registration and inheritance, diversified interests, imbalance between rights and duties.

Even active and economically relatively sound cases might therefore need some support. Due to the fact that most of problems listed at the final forest commoners meeting were of external nature, rooted in past state authorities, this support might be given by the state. One of positive examples in this framework might be the case of German NRW region (EWERS 2010).

6 Conclusions

Slovenian insight into the main processes and relations, defining Slovenian FCs at the moment are based on two cases, selected ad hoc from a set of some hundreds of very different cases all over the country. However, common characteristics have been found, calling for further attention and research:

1. A revival of commons in Slovenia is without exception a result of experience and active member participation, not a result of institutionally based procedures or support.
2. Individual property has never been characteristic of a common as Slovenian cases still know and practices to a certain degree a German principle of the "household" property. A culture of property use incorporates specific social ties, neglected in the period of individualisation and the state driven development in the period from the 19th century on.
3. Organisational structure practice (management board, yearly members assembly meeting, supervisory committee) is the same as centuries ago and comparable with commons elsewhere in Europe. Oral transmittance provided their preservation.
4. Recent challenges are, both, external and internal:
 - a. external: non-recognition of their entities at the state level and unfinished state procedures of denationalisation,
 - b. internal: diversified interests, unsolved inheritance procedures, absent inheritance legitimates which hinders a will for active management.

The main conclusions we can draw from Slovenian cases are:

1. Individuals were never formal landowners as common property has traditionally been a part of a local community. Two characteristics seem crucial in this respect:
 - a. not all community members were (and are) shareholders,
 - b. shares were (and are) not always equal,
 - c. rights and duties were balanced not only between shareholders but also between a forest common and (the whole local) community.
2. Case studies greatly differ in terms of documentation and communication quality, management activity and official recognition.

3. State based factors caused a decline of institutional arrangement of commons and still hinder their revival.
4. Oral rules and non-formal practices prove long-term culture, incorporating personal and common responsibility for natural resources and community at the same time. This kind of non-formal intergenerational and interpersonal links is endangered with purely economic interest.
5. The state levels (politics, professions) are weakly acquainted with this institutional arrangement, its background, present challenges and potential, therefore still inactive.

Due to poor vertical social capital we consider Slovenian forest commons endangered. For the future we therefore suggest:

- more comparative analysis both, at the national and international level;
- investment of the state and local institutions into shared norms development in diversified society, therefore more dialogue and clear common goal development;
- development of potential complementarities in vertical direction according to a "collective game" theory and findings (not only on the basis of interest, but also on the basis of the historical development and knowledge).

7 Literature

- BAHOVEC, I. (2010): Civilna in cerkvena združenja od Slomškovega časa do danes. *Stud. Hist. Slov.* 10, No 2/3: 531-550.
- BOGATAJ, N. (1989): Človek in gozd na Krasu (A human and a forest on the Karst). Bachelor's thesis. University of Ljubljana 1990. DN 788.
- EWERS, C. (2010): Gemeinschaftswald in Nordrhein-Westfalen. In: Landesbetrieb Wald und Holz NRW (Hg.): *Der Gemeinschaftswald in Nordrhein-Westfalen*. Münster: Landesbetrieb Wald und Holz NRW, S. 8-18.
- LOGAR, J. (2001): Agrarna skupnost in nastanek kmečke gozdne posesti v Šembijah. (Agrarian common and origin of Agrarian forest property in Šembije) Bachelor's thesis, University of Ljubljana, VDN 215.
- MLEKUŽ, I. (2011): Agrarne skupnosti na Bovškem (Agrarian commons at Bovško area). Unpublished manuscript.
- PETEK, F. and M. URBANC (2007): Skupna zemljišča v Sloveniji. *Geografski vestnik* 79, no. 2: 41-62. Available at: www.zrc-sazu.si/zgds/GV2007/gv79-2-petekurbanc.pdf.
- ŠEBALJ MIKŠE (2011): Agrarna skupnost Cerknica (An agrarian common Cerknica). Unpublished manuscript.

Common Property and Local Development: an Analysis in a District of Sardinia Region (Italy)

Alessandro Paletto⁹, Isabella De Meo¹⁰ and Fabrizio Ferretti¹¹

Abstract

The property rights and the type of ownership are two fundamental concepts in relationship to the local development and to the social and environmental sustainability. The forest ownership types include three main types: private owners, public domain and commons; in particular this last kind of ownership can play a decisive role in the sustainable forest management (SFM).

The second National Forest Inventory (NFI) show that in Italy the forest area is equal to 8,759,200 ha subdivided in 66 % of private forests (individual, company, and private agency) and around 34 % of public forests (state or regions, municipality or province, public agency). The common forests are included both in public forests when the management authority is a public body (i.e. *Amministrazioni Separate per l'Uso Civico* in Trentino region) and in private forests when the management authority is a private body (i.e. *Regole Feudali*).

In Sardinia region around 21 % of the total forest area are commons forests (120,000 ha). In the common forests of Sardinia exist different common rights known as *adempri-vio*, *cussorgia* and *orzaline* described in the documents of the 14th century during the Aragon period. The respect of these common rights is changed in the different historical periods until to the national Landscape and Environmental Protection Act (1939) that have established specific conservation regimes for these rights.

The main objective of the paper is to evaluate the differences in forest management between commons and public forest owners; we highlight the results in three different steps: (1) introducing the general situation of common properties in Italy, (2) focusing on the Sardinia region situation, and (3) comparing (through analysis of interviews) different types of forest owners in a forest district of Sardinia (Archi-Grighine district in province of Oristano). The analysis of the results was allowed in forest-wood chain perspective in order to evidence the role of the commons in the local development.

Keywords: common property rights, forest management, owners' perceptions, Archi-Grighine district (Sardinia – Italy).

1 Introduction

The property right refers to owner's rights to use a good or asset for consumption or income generation (use rights) and includes the right to transfer it to another party (transfer rights) (RODRIG and ROSENZWEIG 2010). For the classical economists, the property rights occupy a central position in the process of economic development and, therefore, it is important to distinguish the type of property regime (public, private and common). On the other side, the institutional approach to development economics considers the property rights as an important and endogenous element of the institutional structure of an economy (NORTH 1990). This new approach emphasizes the role of the state in codifying and protecting the property rights, particularly the private property, in order to give a positive impetus to economic growth.

In the last decades, the interest of the scientific and political communities around the common-pool resources (common property regime) increased (LAERHOVEN and OSTROM 2007). This interest is related to the role for local development and survival of these resources as traditional institutions (HOLMGREN et al. 2004) and to the contrasts with the precepts of the classical economists that emphasized the importance of private property in the economic process (from Adam Smith to Karl Marx). The international debate on common properties originated two schools of thought on the effects of property rights on economic growth and natural resources management.

The first school, born from the theory of possessions elaborated by John Locke, considers property as a constitutive part of a person. In this perspective, a comprehensive and unrestricted right of disposal over a property is necessary. This school of thought considers individual ownership as an essential aspect of economic development and innovation diffusion (HOLMGREN et al. 2010). The assumption of this theory is that private property

⁹ Dr. Alessandro Paletto Agricultural Research Council – Forest Monitoring and Planning Research Unit (CRA-MPF), Villazzano di Trento, Italy, alessandro.paletto@entecra.it

¹⁰ Dr. Isabella De Meo, Agricultural Research Council – Forest Monitoring and Planning Research Unit (CRA-MPF), Villazzano di Trento, Italy, isabella.demeo@entecra.it

¹¹ Dr. Fabrizio Ferretti, Agricultural Research Council – Apennine Forestry Research Unit (CRA-SFA), Isernia, Italy, abrizio.ferretti@entecra.it

provides considerable incentives for the individual owner to use resources efficiently and sustainably, because in these conditions the owner is able to monopolize the benefits of management (TUCKER 1999). Vice versa, common property is considered an open access resource and consequently it leads inevitably to a “tragedy of the commons” (HARDIN 1968). For this school of thought there is a close relationship between open access and natural resource degradation.

The second school asserts that the presence of common property allows a more efficient management of natural resources than private and state property (POTEETE and OSTROM 2008). The efficiency of management refers not only to the ecological aspects as a greater focus on sustainability, but especially to the economic and social outcomes. From the social point of view, in general, the common property ensures a more equitable distribution of benefits, but the results of the management are also conditioned by the managing organization (governments, communal groups, cooperatives, voluntary associations and private individuals or firms) (OSTROM 2003). With regard to the assertion that the commons are open access, this school of thought distinguishes between common properties as a theoretical condition in which there are no relevant institutions and common properties as a social institution (BROMLEY et al. 1992); the latter are the so-called commons. According to Ostrom (1998), the main principles which are preconditions for the success and permanence of the commons are the following: clearly defined boundaries, congruence between appropriation and provision rules and local conditions, collective-choice arrangements, monitoring, graduated sanctions, conflict-resolution mechanisms, minimal recognition of rights to organize and nested enterprises. In particular, the collective-choice arrangements and the conflict-resolution mechanisms are two principles which require a bottom-up approach.

Commons have been practiced in Italy since the Middle Ages, but with wide differences in the geographical areas that have increased over the centuries. In the Alpine regions, especially in the North-East of Alps, there were the alpine village communities known as *regole*, *vicinie*, *patriziati*, and *comunali*, that administered and managed common forests and pastures (MERLO 1995). These traditional institutions are structured with representatives (president and managerial board) elected by the members of community (householders).

Historically, in Southern Italy, common lands (called *demanio universale*) were used by local families and administered by the council of households (*Universitas civium*) (GROSSI 1977). When the Law n.1766/1925 became effective, the original common property rights have been modified and in many cases devoid of meaning. Presently, common lands continue to being a collective good, but municipalities' citizens can use the land accor-

ding to rules and regulations fixed by local municipal governments. In other words, the right of use for the members of community is assured from the legislative point of view, but the manager and administrator of the common-pool resource is a public organization (i.e. municipality).

Basing on the Italian situation, the main objective of the paper is to analyse forest management differences in public institutions with and without common property rights. The secondary objective is to understand if a top-down approach with a community involvement in the decision making process is sufficient for the success and permanence of the common forests, or if it is necessary a self-government (bottom-up approach). In the first case the power is in the hands of a public organization (i.e. municipalities or state) which involves the beneficiaries (i.e. people of village or householders) in the decision-making process. The community involvement moves from a minimum level (passive participation) to an interactive or collaborative participation. In collaborative participation, the start of the process is determined by public authorities, but different actors cooperate and are put on an equal footing, emphasizing linkage through an exchange of knowledge, different contributions and a sharing of decision-making power during the innovation process (POUND et al. 2003). On the contrary, in the self-government, an independent association administers the common forests with the active involvement of beneficiaries and without the influence of the public authority (BRANDL 2011).

The case study presented is a forest district in Sardinia region (*Arci-Grighine* district – *Oriстано province*) where the tradition of common forests and pastures is still alive and active. The property regimes influences – and in some situations conditions – the local governance and the management of natural resources.

2 Commons in Sardinia

The *dominium utile* (right to use) must be distinguished from *dominium directum* (right to possess) because it can exist independently whether or not there is also a right to possess. The right to use is linked to the common lands and it guarantees to the community members the continuing supply of products from the common resources (BRANDL 2011). In Italy the term *usi civici* is used to identify the rights of common use of land to the single members of communities (*uti cives*), to the *Frazioni* (*demani civici*) or to the associations and agrarian universities (*domini collettivi*). Normally, *usi civici* refers to legal models that regulate the use of the land – which belongs to a plurality of individuals that live together as a community – and organize the use of their territory in order to ensure collective access to their natural resources (CACCIARRU 2009).

The term *usi civici* became of common use with the Laws n.751/1924 and n.1766/1927. Before 1924 – particularly in

Northern Italy – different and various expressions were used such as *servitù civiche*, *ademprivi*, *pensionatico* (FEDERICO 2002). At present, some authors estimate that Italian common land surface is in the range of 50,000 - 100,000 km² (SCOTTI and CADONI 2007). Differently, the Italian National Forest Inventory (NFI) includes common forests alternatively in public forests, when the management authority is a public organization (i.e. *Amministrazioni Separate per l'Uso Civico in Trentino region*), and in private forests, when the management authority is a private organization (i.e. *Regole Feudali*) (INFC 2009).

In Sardinia region the *uso civico* is different from other Italian regions and it comprises the *ademprivio*, *cussorgia* and *orzaline* rights (BITTI 1999). These three traditional rights are similar, but the first is a right of the community, while the second and the third are rights of single persons (i.e. shepherds or farmers). In particular, the *ademprivio* includes common pasture (right to pasture cattle or other animals on common land) and *estovers* or *bote* (right to take sufficient wood for the commoner's household or agricultural needs) (SCOTTI and CADONI 2007). In addition to common pasture and *estovers*, traditionally there was a series of less important rights such as *seminiero*, *stramatico* and *vagantivo* rights. In Sardinia, according to some authors, the land (mainly forests and pastures) subordinated to *usi civici* rights is about 480,000 hectares (DELIPERI 2007); other authors estimate common forests surface is about 120,000 hectares (DE MARTINI 2007).

Historically, the diffusion of the rights on common land is documented since the Aragon period (14th century) (NUVOLI 2002), but the origin of the *ademprivio* is much older. The origin of this right is linked to the *communalia* and the *communia*, and it is datable to the Roman domination period. Instead, the *cussorgia* is a more recent right born in the Middle Ages. The feudatory granted the exclusive right to use a forest or a pasture to the feudal vassal in exchange of an annual rent. The *cussorgiale* (person with the right of *cussorgia*) was often in contrast with the others *ademprivisti* (persons of the community of village with the right of *ademprivio*) because his right prevents other members of the community the free exercise of the rights of *ademprivio* (PODDA 2000). The *orzaline* right is similar to the *cussorgia* right, but it concerns the possibility for a single person to cultivate a common land in an individual way (MEDICI 1932).

During the Aragon period, the *Prammatiche regie* are a collection of laws, adopted by king Philip IV in 1633 and elaborated by lawyer Francesco de Vito, with the purpose to “reformat, mudar y corregir las leyes Viejas, reasumir y renovar las pretéridas, y relaxadas, y azer otras nuevas convenientes al buen gobierno, según la veriedad del tiempo, y calidad, y condición de los pueblos, y que se pusiessem en orden de baxo de sus titulos, y rubricas” (ANATRA et al. 1989, p.

386). In brief, the *Prammatiche regie* establishes some limitations to the common land rights: for example, commoners do not have the right to sell or alienate goods or benefits from the common (SCOTTI and CADONI 2007).

In the middle of the 19th century – with the diffusion of modern economic theories on the great efficiency of the private property – legislators started a series of attempts to abolish the *ademprivio* and *cussorgia* rights. In particular, the Ministerial proposal law of 17th February 1858 and the Law n.2252/1865 arranged that all the common land rights are abolished and that in the case these rights are still practised, this act is intended as an encroachment of the property: “Tutti gli usi conosciuti nell'Isola di Sardegna sotto il nome di *ademprivi*, nonché i diritti di *cussorgia*, sono aboliti. Ogni atto di ulteriore esercizio di questi usi e diritti costituisce una violazione del diritto di proprietà, alla quale sarà applicato il Codice penale comune”. Although these political attempts the *ademprivio* and *cussorgia* rights are still active.

At present, the national legislation specifies the competences of different public administrations (regions, provinces, municipalities) in matter of *usi civici*. The legislation also specifies the competences of the *Amministrazione separata dei beni di uso civico frazionale* (ASBUC - institutional organization of community of village). The main purpose of this institution is the management of common forests and pastures. At regional level, the Regional Law of Sardinia n.12/1994 established that the manager of common land is the municipality or the *frazione*² and that the management is carried out through a special regulation act (articles n.11 and 12). However, the municipality may delegate the management of common lands to special categories of actors (article n.16).

3 Materials and methods

The area of study is the *Arci-Grighine* district (39°42'7" North; 8°42'4" East) located in Central-Eastern Sardinia (Fig. 1). The *Arci-Grighine* district has a total surface of 55,183 ha, corresponding to the 2.3 % of the Sardinia island surface. The population is 26,207 (2001 Census) for a density of about 0.47 persons/ha. The district comprises 21 municipalities; the most populous is Marrubiu with 4,671 inhabitants (density 0.76 persons/ha) and the less populous is Siris with 249 inhabitants (density 0.42 persons/ha). The population reduction and its ageing are a matter of fact in the district. The rural sector plays quite an important role in the economic structure of the district (31 % of the total amount of district enterprises), but more important is the industrial sector with 45 % of the enterprises. Forest surfaces cover 51.2% (28,268 ha) of the territory of *Arci-Grighine* (REGIONE SARDEGNA 2010), and four main forest types are recognized (Tab. 1). Moreover, 307 ha of

Table 1: Main forest types of Arci-Grighine district

Forest type	%
Broadleaf forests (<i>Quercus</i> spp. dominant forests)	43.2
Mediterranean forests (<i>Erico arboreae</i> - <i>Arbutetum unedonis</i> and <i>Pistacio lentisci</i> - <i>Calicotometum villosae</i> associations)	39.6
Evergreen forests (<i>Quercus ilex</i> and <i>Quercus suber</i> dominant forests)	16.6
Mixed forests	0.6

forests are in the Nature2000 Network (SIC - Sites of Community Importance) and a regional natural park of 4,779 ha (Parco naturale regionale del Monte Arci) is currently being established.

Private forests are 43.5 % (12,308 ha), common forests are 45.4 % (12,834 ha), the remaining 11.1 % (3,126 ha) of the Arci-Grighine district includes public forests. Common forests, as well as public forests, are managed by municipalities or, through delegation, by public companies.

According to Regional Law n.12/1994 the *usi civici* rights are active in 49.0 % of common forests (6,290 ha), while in 51.0 % these rights are suspended (6,544 ha).

Therefore, in the district, forest management depends on the typology of the area where forests are located (Fig. 2):

(1) area without common land rights (public and/or private forests), (2) area with common land rights temporarily suspended according to the Regional Law n.12/1994, and (3) area with common land rights. On the whole, six municipalities own exclusively forests without common rights (Allai, Masullas, Mogorella, Pompu, Ruinas and Villanova Truschedu); other five municipalities own exclusively forests with common rights (Ales, Marrubiu, Santa Giusta, Uras and Villaverde). The other municipalities of the district are in intermediate situations with respect to these extremes (see Fig.3).

Considering this framework, the data elaboration was realized by dividing forest owners in two categories: (1) municipalities with prevalence of areas with common land rights, (2) municipalities with prevalence of areas without common land rights and/or with common land rights suspended.

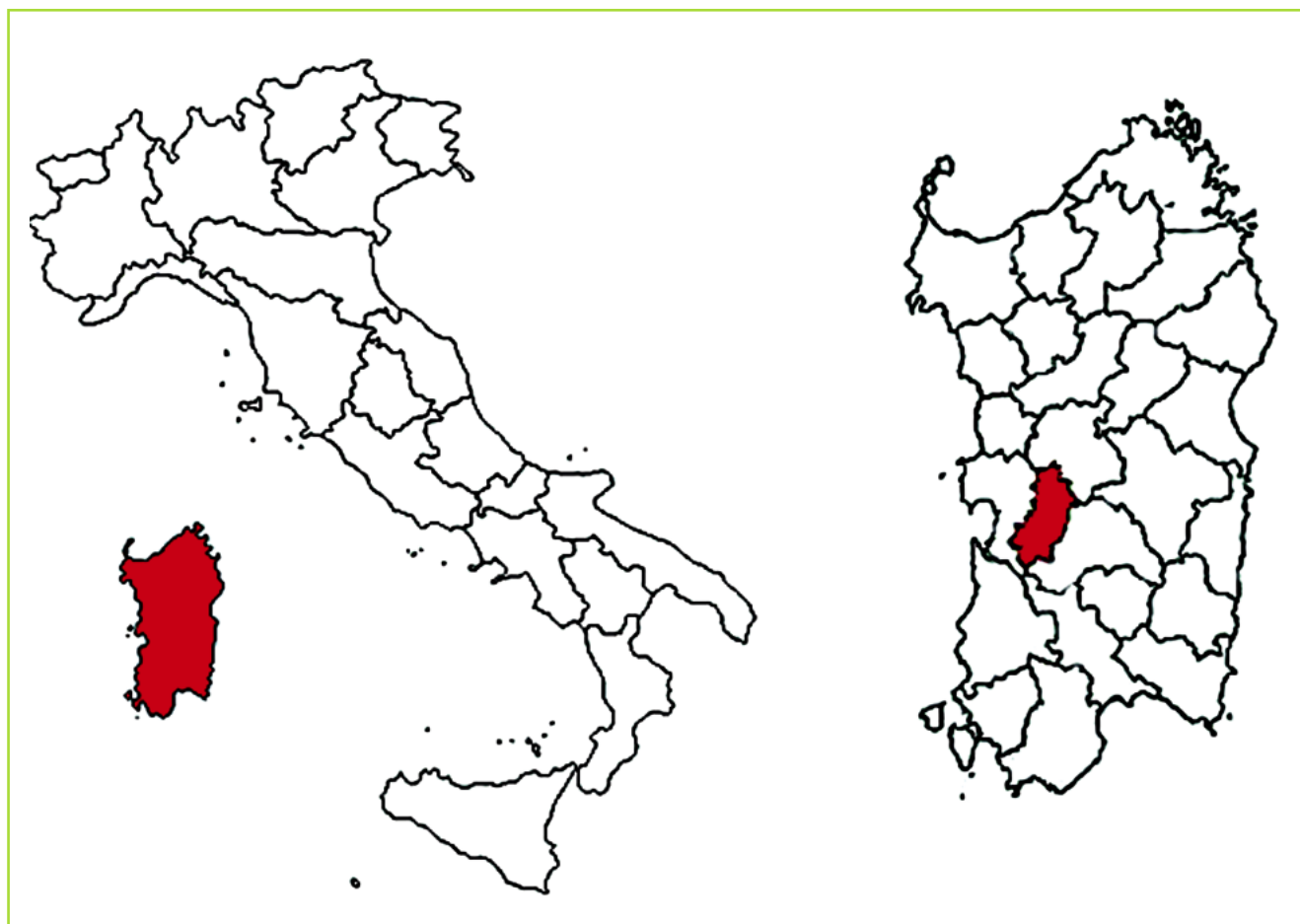


Figure 1: Arci-Grighine district in Sardinia region (Italy)

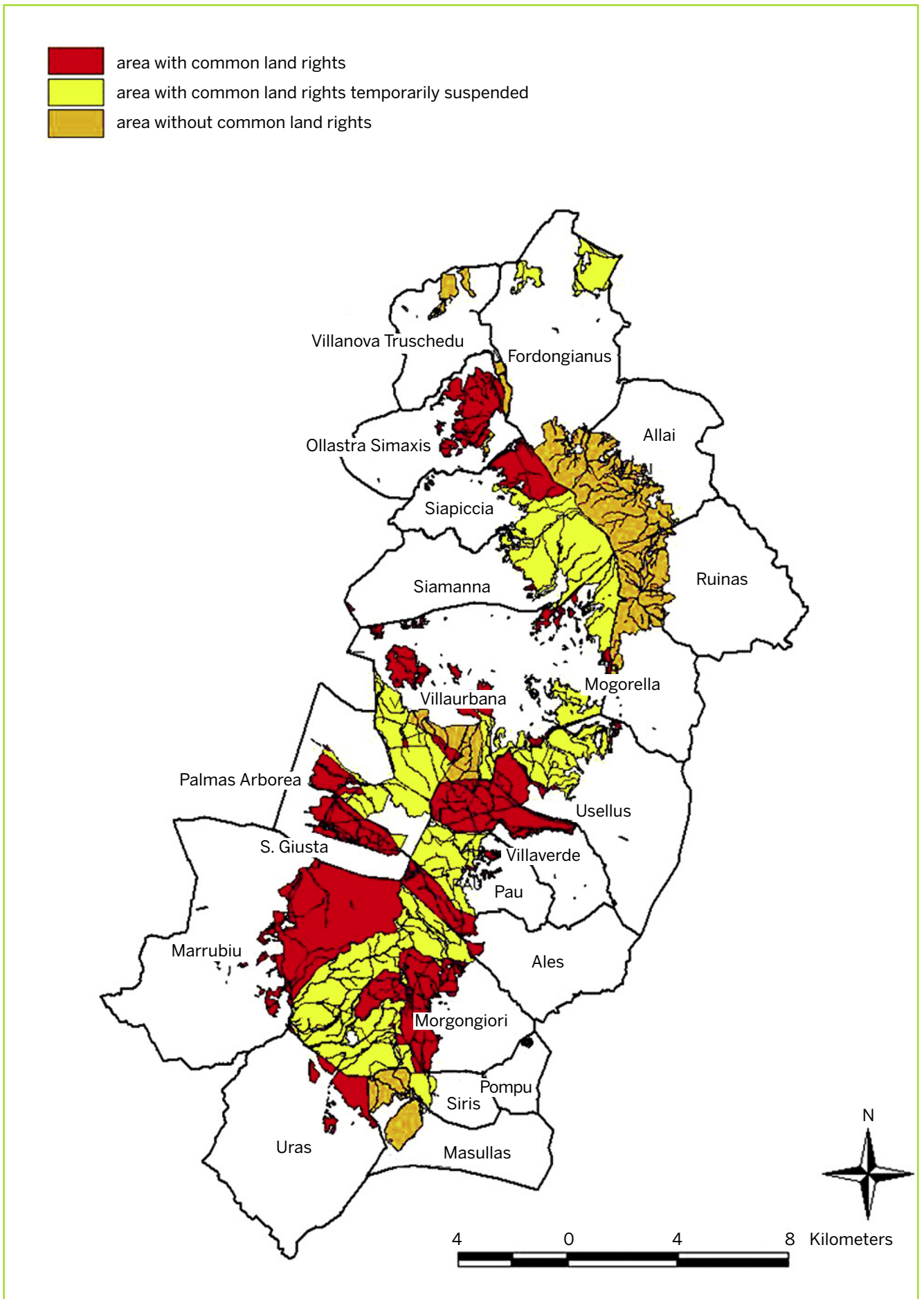


Figure 2: Common land rights distribution in Arci-Grighine district

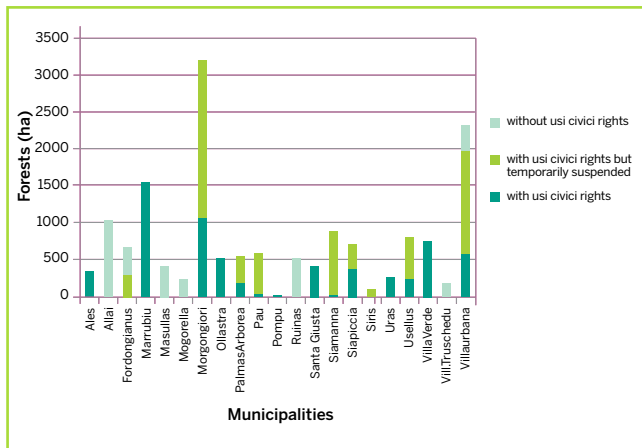


Figure 3: Forests distribution by municipality in relationship to the usi civici rights

Two semi-structured questionnaires were designed to investigate the application of usi civici rights in the commons and the effects of properties regime on forest management characteristics. The questionnaires were divided into thematic sections and submitted by face-to-

face interviews. In order to provide simple interviews, a close-question format was prepared. As a matter of fact, close-ended questions are easier to analyze and permit statistical calculations.

After a preliminary stakeholder analysis, 124 stakeholders were identified, belonging to two main groups: private actors (i.e. forest and wood enterprises, forest owners, farmers, associations) and public actors (i.e. municipalities representatives, and other local administrators). On the whole, 43 public actors (21 municipality majors and 22 public managers and administrators) and 81 private actors were interviewed (PALETTO et al. 2010).

While the questionnaire concerning the application of usi civici rights in the commons was submitted to all the 124 stakeholders, the questionnaire concerning effects on forest management was submitted only to forest owners, distinguishing three types of ownership: public owners, private owners (individual or companies) and common owners. 23 private owners and 22 public owners (21 municipalities and one representatives of public company

Table 2: Questions used to analyze common properties management in Arci-Grighine district

Questionnaire n. 1

What are the most important forest functions in Arci-Grighine district?

<input type="checkbox"/> Fuelwood	<input type="checkbox"/> Hydrogeological protection
<input type="checkbox"/> Roundwood	<input type="checkbox"/> Gaming
<input type="checkbox"/> Grazing	<input type="checkbox"/> Tourism
<input type="checkbox"/> Cork production	<input type="checkbox"/> Landscape
<input type="checkbox"/> Beekeeping	<input type="checkbox"/> Habitat conservation
<input type="checkbox"/> Myrtle production.	

Which interventions on forests contribute to the economic development of Arci-Grighine district?

- Development of forest-wood chain
- Improvement of forest roads and tracks
- Improvement of tourist facilities
- Implementation of environmental protection activities
- Intensify cooperation between the municipalities.

What types of usi civici are practiced by local community?

<input type="checkbox"/> Legnatico	<input type="checkbox"/> Stramatico
<input type="checkbox"/> Pascolo (grazing)	<input type="checkbox"/> Vagantivo
<input type="checkbox"/> Seminiero.	

Is firewood and timber for uso civico assigned? Firewood or timber assigned meets the demand of the community?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

Questionnaire n.2

Who is the manager of the forests?

<input type="checkbox"/> Municipality	<input type="checkbox"/> Institutional organization of users
<input type="checkbox"/> Ente Foreste Sardegna	<input type="checkbox"/> Other
<input type="checkbox"/> Private or public cooperatives.	

Which is your level of satisfaction on the forest management (only in the case of non-directly management)?

<input type="checkbox"/> Highly satisfied	<input type="checkbox"/> Not very satisfied
<input type="checkbox"/> Quite satisfied	<input type="checkbox"/> Completely dissatisfied.

representative, from Ente Foreste Sardegna¹³) were interviewed.

In the present paper, in order to analyse forest management differences in public institutions with and without common property rights on lands, only the answers to questionnaires given by the 21 representatives of municipalities (divided in public owners and common owners) are considered. Overall, from the two questionnaires six questions were selected (Tab. 2) concerning the influence of two variables (type of ownership and property rights) on forest management strategies and practices. Four questions were extracted from the first questionnaire: two of these aimed at investigating customs of the common property rights, the other focusing on the management strategies to enhance common forests. Two questions were extracted from the second questionnaire concerning type of management and the interviewee's satisfaction around forest management in public and common forests.

Considering the six questions presented in Tab. 2, the first one investigates which are, in the opinion of the respondents, the most important functions of the Arci-Grighine forests.

The forest multifunctionality of the district, which represents one of the main objective of forest management, is evaluated through this specific question. In order to evidence owners' preferences, interviewees were asked to assess the importance of any single forest function in a scale of four options: (4 = high importance, 3 = medium importance, 2 = low importance, 1 = very low importance). The forest functions were individuated by both local technicians and researchers, and were then presented to the owners in a close answer form, without the possibility of adding any additional function. The individual preferences attributed by the owners to each forest function were elaborated by sorting them according to a list of priorities. In order to integra-

te information about forest multifunctionality management, with another question owners were also asked to indicate which are the most appropriate forest strategies to promote the economic development of the Arci-Grighine district. The same scale used for the assessment of the forest functions was used also for this question.

Considering the different situations on common land rights in Sardinia, in a question of the first questionnaire respondents were asked to indicate which *usi civici* are still active in their territory. The main *usi civici* considered are:

- Legnatico (*bote*): the right to pick up firewood and timber from forests subject to *usi civici*;
- Pascolo (grazing): the right to bring cattle to graze in pastures owned by the village community;
- Seminiero: the right to plant annual species in land of the community;
- Stramatico: the right to collect grass and leaf litter for cattle from common forests;
- Vagantivo: the right to roam wetlands in order to collect reeds, grasses and straw, as well as hunting and fishing.

For the *legnatico* right, a second question investigated whether firewood and timber are assigned by public organization (i.e. municipalities or Ente Foreste Sardegna) and if assignments meet the family demand. Questions extracted from the second questionnaire investigated whether forests are managed by public institutions (direct management) or by an external manager (indirect management), and the level of satisfaction in the case in which management is in the hands of third parties. Considering managers, a preliminary closed list of managers (municipality, public company, public or private cooperative, and institutional organization of users/householders) was proposed, with the possibility of "other" choice.

Table 3: Mean value for the forest functions assigned by the forest owners

Forest functions	Public owners		Common owners	
	Mean	Dev.st	Mean	Dev.st
Fuelwood	3.71	0.61	3.57	0.79
Roundwood	0.86	0.36	1.00	0.00
Grazing	2.64	1.01	2.57	0.79
Cork production	2.07	0.83	1.86	1.07
Beekeeping	2.07	1.00	2.43	0.98
Myrtle production	2.29	1.14	3.14	1.07
Hydrogeological protection	3.31	1.18	2.71	1.25
Gaming	4.00	0.00	4.00	0.00
Tourism	3.07	0.83	3.00	0.82
Landscape	3.43	0.51	3.71	0.49
Habitat conservation	3.00	0.96	3.57	0.53

4 Results and discussion

Considering forest multifunctionality, the comparison between the two groups of respondents shows that there are not important differences in the priority order of forest functions (Tab. 3). Gaming (4.00) is the most important function for both groups of respondents, with the same mean value. There is a block of functions with an average value between 3.0 and 4.0. In particular these functions, which must be taken into account for a multifunctional forest management, are: gaming activities (4.00), fuelwood production (3.71 and 3.57 respectively for public and common), tourism (3.07 and 3.0), landscape (3.43 and 3.71) and habitat conservation (3.0 and 3.57). The remaining functions scored values below 3.0 for the two groups or for one of the two. The preferences expressed by the owners move from economic to environmental and social functions and seem to indicate that a management oriented to perceive a moderate multifunctionality is considered as a priority both for public and common owners. In this framework, common owners seem to give a higher score to environmental functions in comparison to public owners (i.e. landscape and habitat conservation).

The analysis of responses regarding forest management strategies to develop local economy shows (Fig. 4) that the improvement of tourist facilities (4.07 for the public owners, 3.29 for the common owners) is the most impor-

tant strategy for the two groups. The second strategy indicated by public owners is the implementation of environmental activities and habitat protection (3.21), while for the managers of common forests all strategies have similar importance excluding the development of forest-wood chain (2.14).

Considering the *usi civici* rights actually active in Arci-Grighine district, there are relevant differences between the responses of decision makers who administer public property and those who administer common properties (Fig. 5). These differences concern three types of rights: bote rights (71.4 % in common forests, 28.6 % in public forests), grazing rights (71.4 % in common forests, 35.7 % in public forests), and seminiero rights (85.7 % in common forests, 7.1 % in public forests). These differences are related to the local situations and to the implementation of Regional Law n.12/1994 which allowed municipalities to temporarily suspend these rights.

Considering the total number of assignments (public and common forests), the responses to the question "Firewood or timber assigned meets the demand of the community?" evidence that the family needs are met in nearly 55 % of cases. In the remaining 45 %, families are forced to buy firewood and timber on market.

The results of the investigation on the type of management show that forests are managed by external managers (57.1 %)

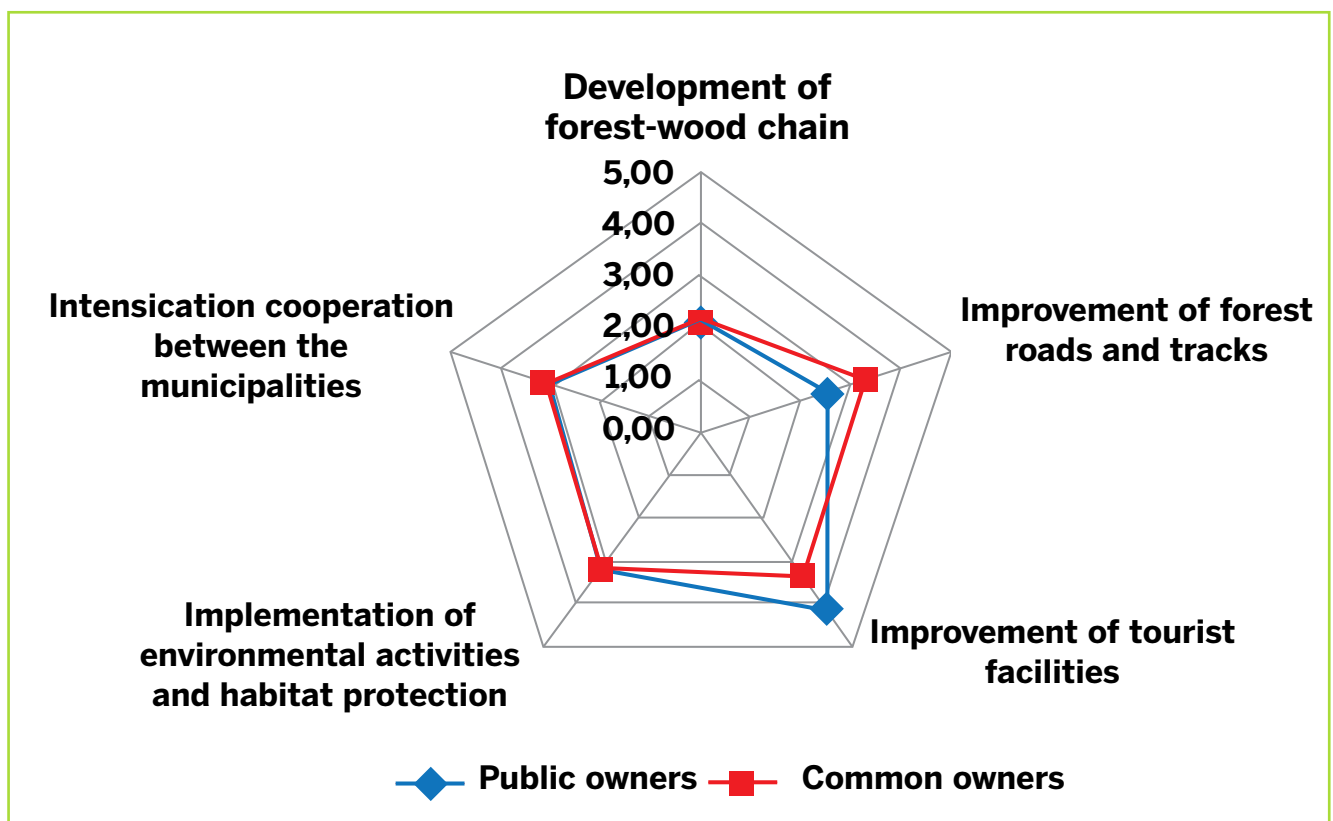


Figure 4: Owners' preferences on forest management strategies to develop local economy

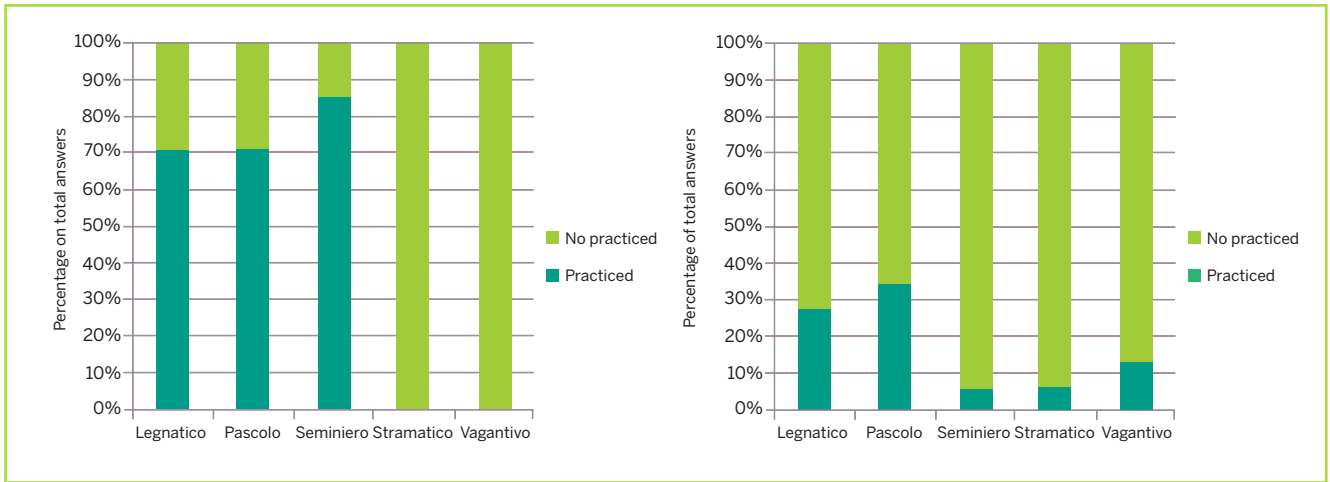


Figure 5: Usi civici practiced in common forests (left) and public forests (right) in the Arci-Grighine district

or there is an absence of management (42.9 %) in the municipalities with common forests; on the contrary, in the municipalities without common forests, the indirect management (85.7 %) prevails. In this last case the only manager is Ente Foreste Sardegna, while municipalities with common forests entrusted forest management to local cooperatives (50 %) or to Ente Foreste Sardegna (50 %). Therefore, Ente Foreste Sardegna manages the forests of 14 municipalities, corresponding to more than half of the Arci-Grighine district forests. In general common forests managed by Ente Foreste Sardegna are those where the *usi civici* rights are suspended.

The management of common forests in the district can be analyzed through the principal-agent model, with special emphasis on the application to the public administrations (FUKUYAMA 1995, MILLER and WHITFORD 2002). According to SHAPIRO (1987, 626 p.), in principal-agent relationships, principals – for whatever reason or state of mind – invest resources, authority or responsibility on another [agent] to act on their behalf for some uncertain future return. In the case study, we have highlighted three levels of actors involved (Fig. 6) in the management of common forests. The first level includes the principals (members of community), the second level includes the replacement of principals (municipalities), while at the third level there are the agents (managers such as municipalities, public companies or cooperatives).

In comparison with the two level model, the three level model is more complex and potentially inefficient. The inefficiency can be linked to an increased possibility of misunderstanding between agent and replacement of principal or between replacement of principal and principal. In this paper only divergences and misunderstandings in management between replacement of principal-agent (agent level) are analyzed. In the future steps of the research it might be interesting to investigate differences between members of community and representatives of municipalities (principal level). From a political point of

view this kind of analysis is useful in order to highlight managerial divergences between representatives and represented.

In this framework of the analysis the question about the level of satisfaction with forest management is very important, because results can detect if the replacement of principals (municipalities) is operating in the way indicated by principals (members of community). For future step of the research it will be interesting to understand if the replacement of principals is operating according to the needs and demands of the shareholders.

Fig. 7 illustrates the level of satisfaction of municipalities representatives with to the management carried out by Ente Foreste Sardegna and cooperatives. The main weakness point concerns management strategies differences between Ente Foreste Sardegna and municipalities. The first organization has an ecological approach to

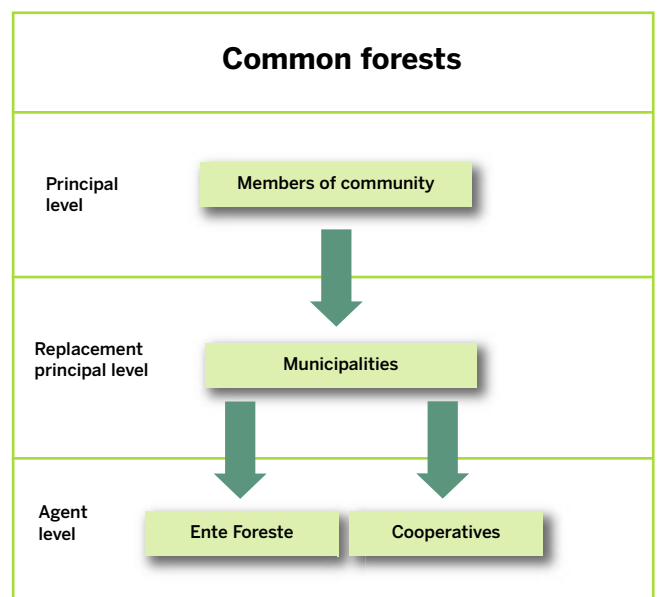


Figure 6: Levels of actors in the common forests management

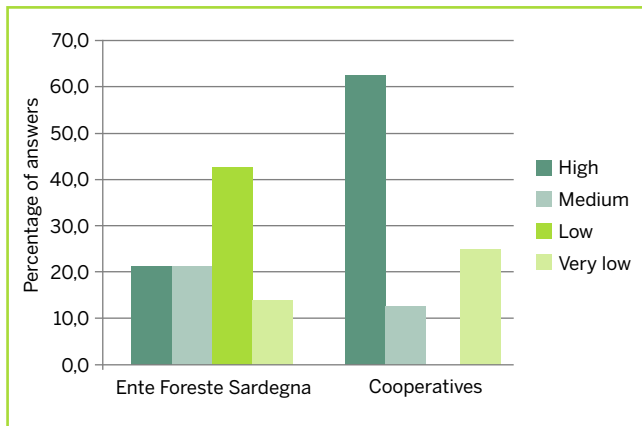


Figure 7: Level of satisfaction on the work of managers (agents) expressed by municipalities

forest multifunctionality, aimed at encouraging non-monetary forest functions. On the contrary, many municipalities have an economic approach to forest multifunctionality aimed at increasing fuelwood (also in order to satisfy the *usi civici* rights) and cork production.

5 Conclusions

With regard to the method of investigation, semi-structured questionnaire was an efficacious tool in order to collect objective answers, giving at the same time the possibility to the respondent to freely express his opinions on a particular issue. This method permitted to obtain information and to catch facets of common forests issue. In such a way it was possible to deeply analyze the question and to relate the obtained information to the governance of the district, with the aim of pointing out if the top down approach to decision making process is of success in the management of common forests.

In relation to the two main objectives of the paper, some considerations emerged from the investigation conducted in the district. Considering forest management differences between public institutions, the research evidences that municipalities without common property rights seem to have a more defined productive profile, in comparison with public owners. Probably this fact can be tied directly to the prevalence of indirect management in the municipalities without common forests. In this case, probably the external manager (which is Ente Foreste Sardegna) has an economic approach to forest management. On the contrary, when municipalities directly manage forests, more attention seems to be given to environmental functions.

The secondary objective of the research was to understand if a top-down approach with a community involvement in the decision making process is sufficient for the success of the common forests, or if it is necessary a self-government. The

investigation evidenced that in common forest *usi civici* rights active at present are considerable higher than in public forest, but with regard to the *bote* rights, the share of fuelwood and timber assigned by the public administrations doesn't meet the family needs and frequently families are forced to buy firewood and timber on market. This is an expression of the fact that municipalities are active in the management of common rights, and the maintenance of these rights is a way to ensure a satisfactory forests management. On the other side municipalities are not able to satisfy the requirements of the communities.

We can affirm that from the economic point of view, the management and administration of common forests by public organizations can be more efficient in comparison to the self-government, in reason of the fact that it considers the *usi civici* rights at the same level as the other land use destinations (i.e. bioenergy production). Vice versa, this kind of management can not assure the social sustainability, because needs and demands of the members of community are not always considered in decision-making process.

In the light of the situation of Sardinia region in Italy, according to STEVENSON (1991) and OSTROM (1998) we can assert that the fundamental conditions for an efficient and equitable management of common forests are: 1) clearly defined boundaries from the physical, biological and social point of view, 2) well-delineated group of users condition (not open access to the resource), 3) well-understood rules and 4) self-government of the users (members of community). This last point is particularly important in reason of the fact that the case study of Arci-Grighine shows that the presence of one or more level of management generates a decrease in the observance of common land (*usi civici*) rights. The results can be compared with the results from other researches developed in Italy. In situations where the village communities administer and manage common forests, these traditional institutions are structured with a self-government model (PALETTO et al. 2011). In this kind of situations, collective identity is deeply rooted in the community and the management of common forests is realized with the active involvement of beneficiaries and the main goal of satisfying community needs.

6 References

- ANATRA, B.; MATTONE, A. and R. TURTAS (1989): *L'età moderna: dagli aragonesi alla fine del dominio spagnolo. Storia dei sardi e della Sardegna. Vol. III.* Milano: Editoriale Jaca Book.
- BITTI, P. (1999): *Gli usi civici in Sardegna. Un esempio di gestione informatizzata.* In: Neri, P. (ed.): "Il ruolo economico e sociale dei demani civici e delle proprietà collettive".

- Atti della III Riunione Scientifica, Trento 13-14 November 1997. Padova: Cedam.
- BRANDL, H. (2011): The commons in South West Germany: prosperity, decline and transformation. In: Hartebrodt, C. (ed.): IUFRO Small-scale Forestry Conference. Synergies and conflicts in social, ecological and economic interactions. Freiburg: FVA, pp. 151-155.
- BROMLEY, D. W.; FEENY, D.; MCKEANE, M.; PETERS, P.; GILLES, J.; OAKERSON, R.; RUNGE, C. F., and J. THOMSON (eds.) (1992): Making the commons work: theory, practice, and policy. San Francisco: Institute for Contemporary Studies Press.
- CACCIARRU, A. (2009): Land use patterns and access to resources: the usi civici in Ogliastra (Sardinia). *Archivio Scialoja-Bolla* 1: 143-161.
- DE MARTINI, A.; LIORI, A.; CARTA, E.; TODDE, S. A.; ABIS, A.; D'ANGELO, M., and M. B. CAREDDU (2007): Piano forestale ambientale regionale - Rapporto ambientale. Cagliari: Regione autonoma della Sardegna.
- DELIPERI, S. (2007): Gli Usi civici in Sardegna. *Rivista Giuridica online Lexambiente*.
- FEDERICO, C. (2002): Dall'intento livellatore e liquidatorio alle nuove prospettive di valorizzazione dei domini collettivi. In: NERI, P. (ed): "I domini collettivi nella pianificazione strategica dello sviluppo delle aree rurali". Atti della VII Riunione Scientifica, Trento 8-9 November 2001. Padova: Cedam, pp. 71-94.
- FUKUYAMA, F. (1995): Trust: The social virtues and the creation of prosperity. New York: Free Press.
- GROSSI, P. (1977): Un altro modo di possedere. L'emersione di forme alternative di proprietà alla coscienza giuridica postunitaria. Milano: Giuffrè.
- HARDIN, G. (1968): The tragedy of the commons. *Science* 162: 1243-1248.
- HOLMGREN, E.; LIDESTAV, G. and G. KEMPE (2004): Forest Condition and Management in Swedish Forest Commons. *Small-scale Forest Economics, Management and Policy* 3(3): 453-468.
- HOLMGREN, E.; KESKITALO, E. C. H. and G. LIDESTAV (2010): Swedish forest commons – A matter of governance? *Forest Policy and Economics* 12: 423-431.
- INFC (2009): I caratteri quantitativi 2005 – Parte 1, versione 2. Autori: GASPARINI, P.; DE NATALE, F.; DI COSMO, L.; GAGLIANO, C.; SALVADORI, G.; TABACCHI, G., and V. TOSI. *Inventario Nazionale delle Foreste e dei Serbatoi Forestali di Carbonio*. MiPAAF – Ispettorato Generale Corpo Forestale dello Stato, CRA-MPF, Trento.
- LAERHOVEN, F. and E. OSTROM (2007): Traditions and Trends in the Study of the Commons. *International Journal of the Commons* 1(1): 3-28.
- MEDICI, G. (1932): Aspetti recentie remoti della proprietà fondiaria in Sardegna. *L'Italia agricola* 11.
- MERLO, M. (1995): Common property forest management in northern Italy: a historical and socio-economic profile. *Unasyva* 46(180): 58-63.
- MILLER, G. J. and A. B. WHITFORD (2002): Trust and incentives in principal-agent negotiations. *Journal of Theoretical Politics* 14(2): 231-267.
- NORTH, D. (1990): *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- NUVOLI, F. (2002): Realtà e problemi dell'uso collettivi della terra in Sardegna. In: GAJO, P. and F. NUVOLI (eds.): "Analisi degli aspetti economico-estimativi e giuridici delle terre soggette al diritto di godimento collettivi", Sassari: Stampacolor Industria grafica, pp. 161-166.
- OSTROM, E. (1998): *Institutional Analysis, Design, Principles, and Threats to Sustainable Community Governance and Management of Commons*. In: BERGE, E. and N. C. STENSETH (eds.): *Law and Governance of Renewable Resources: Studies from Northern Europe and Africa*. Oakland: ICS Press, pp. 27-53.
- OSTROM, E. (2003): How types of goods and property rights jointly affect collective action. *Journal of Theoretical Politics* 15(3): 239-270.
- PALETTO, A.; DE MEO, I. and F. FERRETTI (2010): Social Network Analysis to support the forest landscape planning: an application in Arci-Grighine, Sardinia (Italy). *Forest Ideas* 1: 28-35.
- PALETTO, A.; DE MEO, I. and F. FERRETTI (2011): Preferenze sociali e preferenze istituzionali a confronto: il caso del distretto forestale dell'Arci-Grighine. *Forest@* 8: 216-227.
- PODDA, F. (ed.) (2000): Usi civici in Sardegna. Sopravvivenze del passato o potenzialità per il futuro? Associazione Italiana Coltivatori Sardegna. Cagliari: Edinsar.
- POTEETE, A. R. and E. OSTROM (2008): Fifteen years of empirical research on collective action in natural resource management: struggling to build large-n databases based on qualitative research. *World Development* 36(1): 176-195.
- POUND, B.; SNAPP, S.; MCDUGALL, C., and A. BRAUN (eds.) (2003): *Managing Natural Resources for Sustainable Livelihoods. Uniting Science and Participation*. London: Earthscan Publications Ltd. and the International Development Research Centre (IDRC).
- REGIONE Autonoma della Sardegna (ed.) (2010): Carta forestale del Distretto Arci-Grighine. Available at: www.sardegnaeoportale.it/argomenti/cartetematiche.html.
- RODRIK, D. and M. ROSENZWEIG (2010): Development Economics. In: RODRIK, D. and M. ROSENZWEIG (eds.): "Handbook of Development Economic, Vol. 5, North-Holland: Elsevier, 4525-4595.
- SCOTTI, R. and M. CADONI (2007): A historical analysis of traditional common forest planning and management in Seneghe, Sardinia – Lessons for sustainable development. *Forest Ecology and Management* 249: 116-124.
- SHAPIRO, S. P. (1987): The social control of impersonal trust. *American Journal of Sociology* 93(3): 623-658.
- STEVENSON, G. G. (1991): *Common property economics. A general theory and land use applications*. Cambridge.
- TUCKER, C. M. (1999): Private versus common property forests: forest conditions and tenure in a Honduran Community. *Human ecology* 27(2): 201-230.

Agrarian (Forest) Commons in Slovenia Preliminary Findings

Tine Premrl¹⁴, Mirko Medved¹⁵, Janez Krč¹⁶

Summary

Forest commons, agrarian commons, urbariats are some of the terms which define the concept of ownership regime mainly for forests and pastures. Such types of ownership, like in others countries, can also be found in Slovenia. The history of this form of ownership or management organization is very long. In Slovenia it originates from the time of Slavic settlements from the eighth century up to now. In the twentieth century two things happened: nationalization shortly after World War II in former Yugoslavia and restitution after Slovenia gained independence. With restitution, original members of commons received the right to re-establish their commons and to get common land back. The history of agrarian reforms of different states in the territory of Slovenia led to the present situation, where only a small fraction of this once common organizational form still exists.

Originally commons' land belonged to the agrarian commons and it was used by members of the community, who had a common economic interest and need on that land (pasture, fire wood etc.) Today the situation is different, members are owners and they do not necessary live off farming or even live in the place of community, moreover their needs are different. Commons were as today managed by common rules, which are the result of experiences in how to steer a course between member's rights and duties on one side and the possibilities of land on the other. The current issue of agrarian commons is need for legislative changes on state level which should be taken in way that agrarian commons are allowed to be active partners in decision making process.

1 Introduction

To understand how forest/agrarian commons function in Slovenia nowadays, it is necessary to present some concepts. On the following pages we are going to present some concepts of Slovenian forest policy and Slovenian forest, we are going to present a short background of forest commons concept and add an overview of forest commons in Slovenia. For better understanding of agrarian commons (AC) a case study is included in this paper.

2 Forestry and forests in Slovenia

Talking about AC cannot be made without short introduction to forestry and forests in Slovenia, as forests are the most common category in land use of commons.

Forest management guidelines in Slovenia are based on three concepts. The first concept is sustainable and multipurpose management in accordance with the principles of environmental protection and natural values. The second concept is permanent and optimal functioning of forest as ecosystems. The third concept is implementation of all forest functions (ecological, social and productive). Those three concepts are implemented in all forests in Slovenia irrespective of ownership. For all forests in Slovenia forest management plans are made on regional and local level. Forest owners are obliged to manage forests according to a management plan. In their management they cooperate with local public foresters. For their needs they can also have an additional forest property management plan, what is generally not the case for Slovenian private forest owners and forest commons.

Talking about forests is important, as they cover almost 60 % of Slovenian territory or 1,163,812 ha. Seventy percent of the forests are included in Natura 2000, which shows us their natural value. Total growing stock is 330,982,374 m³ with average 262 m³/ha. Potential annual harvest is 4,162,662 m³ with realization of 71 %. The private sector in particular does not fulfill this potential (ZGS 2011).

Respecting other functions of forests not only economical is obligatory for AC as well as for other forest owners. Figures about harvesting potential are interesting for agrarian commons, as their success in realization influences their economy.

3 Definition, concept, and background of forest commons in Slovenia

To start: Are Slovenian commons forest or agrarian commons? When talking about present land use, we could say that we have forest commons whereas talking about their background, legal and historical one, we are going to defi-

¹⁴ Tine Premrl, Slovenian Forestry Institute, Ljubljana, Slovenia; Gozdarski inštitut Slovenije, Večna pot 2, 100, Ljubljana, Slovenija, tine.premrl@gozdis.si

¹⁵ Dr. Mirko Medved, Slovenian Forestry Institute, Ljubljana, Slovenia; Gozdarski inštitut Slovenije, Večna pot 2, 100, Ljubljana, Slovenija, mirko.medved@gozdis.si

¹⁶ Prof. Dr. Janez Krč, Biotechnical Faculty, University of Ljubljana, Slovenia; Oddelek za gozdarstvo in obnovljive gozdne vire, BF, Univerza v Ljubljani, janez.krc@bf.uni-lj.si

ne them as agrarian commons. Just like now more terms were used in the past to denote agrarian commons. The “Act on reestablishment of agricultural communities and restitution of their property and rights” (ZPVAS 1994) includes seven synonymous expressions for AC and some others are also used in practice among members of commons.

History of AC in Slovenia is long. It originates from Slavic times, when common usually presented community of neighbors located in the same settlement with common economical interests and local self-government. Management of land in traditional ancient Slavic community was collective. Farming methods in medieval times led to feudalization of productive land, while pastures and forest were given to inhabitants, usually peasants, granting them servitude rights. Autonomy of settlements was limited on agriculture relations among inhabitants and management of common infrastructure (roads, wells etc.). Looking on this we can say that autonomy was low, but on the other hand very important for that time and way of life (VILFAN 1980). In the late middle ages servitude rights of farmers and rural areas were shrinking because of new cities and mining industry. In the second half of the 19th century farmers got theirs back, usually as a common property.

An new period of commons starts in the second half of the 19th century after land reform, which stays unfinished. Nationalization of commons after World War II happened with the “Act on agrarian commons” in 1947 and later organized with the “Act on disposing of the assets of former agrarian commons” in 1965. With nationalization an estimated number of 1,000 commons and their members were excluded from management of their land (but not necessary excluded of using it) and new established government cooperatives, and state forest enterprises started “managing” this land.

Suburbanization and urbanization process together with migration were changing urban and rural areas in Slovenia rapidly in the following decades. In 1953 53.6 % and in 1991 13.6% of employees were employed in primary sector. Forest extent has increased from 47 % in 1947 (when nationalization of commons happened) to 56.4 % in 2001 (when date for reestablishment of commons expired), and to 58.5 % in 2008 (ZGS 2011) (when the last commons in Slovenia were reestablished in Slovenia). History and above mentioned process affect also present agrarian commons, whose 20 years history is shortly presented below.

On 25 June 1991, the Republic of Slovenia was declared an independent state and shortly after independence on 29 November 1991, “Denationalization Act” was adopted. With that act, the idea of members of previous AC or their inheritors rose up. Beneficiaries established informal association of AC to support reestablishment process.

Their interest and work in activation an idea of AC reestablishment resulted in the “Act on reestablishment of agricultural communities and restitution of their property and rights” (ZPVAS 1994), which was adopted on 25 January 1994. On 4 March 1994, “Rules concerning essential element of rules for agricultural communities and the contents of the register of agricultural communities and their members” were adopted. Rules on AC are based on previous rules of agrarian common. After three prolongations, 30 June 2001 was the last date to start a process of agrarian common reestablishment.

Originally commons’ land belonged to the local common; their members were inhabitants of a local village or town. Members were farmers and they or their farm or household had servitude rights on commons to satisfy their economic interest and needs (pasture, fire wood, etc.) (VILFAN 1980). Commons were managed by written or unwritten common rules, which were the result of experiences how to steer a course between members’ rights and duties on one side and the possibilities of using common land on the other.

New organization of AC in Slovenia is different in a very crucial point: ownership. Members of a common are not only beneficial any more, but they became owners. Members own property under three different ownership and right categories:

1. Ownership right as a co-ownership with ideal shares indication
2. Ownership right as a common ownership without ideal share indication
3. Servitude rights to foreign things.

Agrarian common is not a legal entity and it functions according to rules, the essential elements of which are prescribed by the government. The legal bases are old rules from previous commons (ZAPVAS 1994). The rules include organizational elements such as AC bodies’ issues, representative issues, membership rights, duties, and obligations, etc. (PAVILNIK 1994). Legal practice shows that there are differences between legal concepts and the original idea of commons. We can say that the principles of common law and Roman law clash on agrarian common issues. This results in problems in AC management and function. Ownership of individual persons brings law of Property Code in Slovenian commons which affect decision making process in commons. It affects inheritance process (dividing shares, no community connection, selling shares, shares donation etc.) and management (building permits, selling, renting etc.), as members have to reach the required percent of agreement to solve some property management issues. For some issues legislation required 100 % membership agreement with notarized signatures what can present an unbeatable barrier (numerous membership, different interests, etc.). Recently the proposal for amendments of ZPVAS act was

adopted and allowed that 75 % of members representing 75 % of shares can approve decisions beyond the scope of regular property management, if decisions are in the public interest.

The main decision-making body is the assembly of members, which normally takes place once a year and adopts an annual management strategy, which represents a “political” decision made by majority of the members. An election assembly takes place periodically, where the management committee is elected with the aim of making day-to-day decisions.

As organization roles and principles of agrarian commons, especially if we consider their role in history, go hand in hand with different communities – such as local community, village community, neighborhood and cooperation – we can say that today “commons are not communities or cooperation, but a community can have a share in a common and cooperation can cooperate with a common.” Same goes for the people involved in all these structures and sometimes for the same interests, who can make things more complicated or we can say more interesting and diverse.

4 AC Findings

Present findings about Slovenian AC were published by F. Petek and M. Urbanc in 2007. In their research (PETEK and URBANC 2007) they collected data about AC established in that time and present them according to the spatial distribution in Slovenia. Their findings show that 665 commons in Slovenia were registered in that time. AC gets to manage 71,789 ha; 60 % of land which was classified as farming land according to cadastre, but in reality forests prevailed. This land represents 3.5 % of Slovenian territory. 71 % of AC members received land back. Not all commons managed the same amount of

land. Variation scale is from 1,000 hectares (ten commons) to less than 1 ha of land (28 commons). Average common estate in Slovenia is 147 ha. Larger commons are in the western part of Slovenia and in the Alps region.

Included in that research were researches about AC made by students of forestry and law for their graduation thesis, often made on cases of specific agrarian commons. For the past three years we have been observing the situation in agrarian commons. Our work on commons increased in the last year. With one to one meetings with AC representatives and participation on their events we get inside view on the situation. In 2011 data about AC was collected and test questionnaire was sent to commons in selected administrative units. The aim was to get first hand information from AC representatives on the situation in their AC and their opinion on legal issues and possibilities of establishment of association of AC.

On that basis we have identified some SWOT components on commons (table 1).

We have analyzed the process of reestablishment (picture) and verified data from Register of Agrarian Commons. Actual distribution and number of AC (picture) shows some differences in numbers of registered AC with previous research (PETEK and URBANC 2007), as today 622 commons are registered.

Focusing on the current problematic of agrarian commons, their representatives recognize some solution to improve AC functioning in Slovenia, as they see them as important element in rural areas. First they see solutions in a new legal frame work to overcome weakness and threats of present legal organization. Secondly they see a need for representativeness of their interests to establish association of AC and to establish communication with public authority on the principle of one stop shop.

Table 1: SWOT components on commons

<p>Strengths</p> <ul style="list-style-type: none"> • ACs are already established structures on local territory with local people and a long tradition of cooperation • ACs are working on voluntary basis • Potential of transfer of knowledge and practice <p>Opportunities</p> <ul style="list-style-type: none"> • Increasing management on private members • Enlarge AC estate • Opportunities to contribute to rural development • Opportunities to contribute on RES goals 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Because of complicated process of reestablishment and lack of support a number of ACs face problems • Not all land was given back to the AC • Problem of different jurisprudence <p>Threats</p> <ul style="list-style-type: none"> • Reformatting of AC among members (“land consolidation”) • Problems of long inheritance process • Problems of decision making • Legal problems
--	--

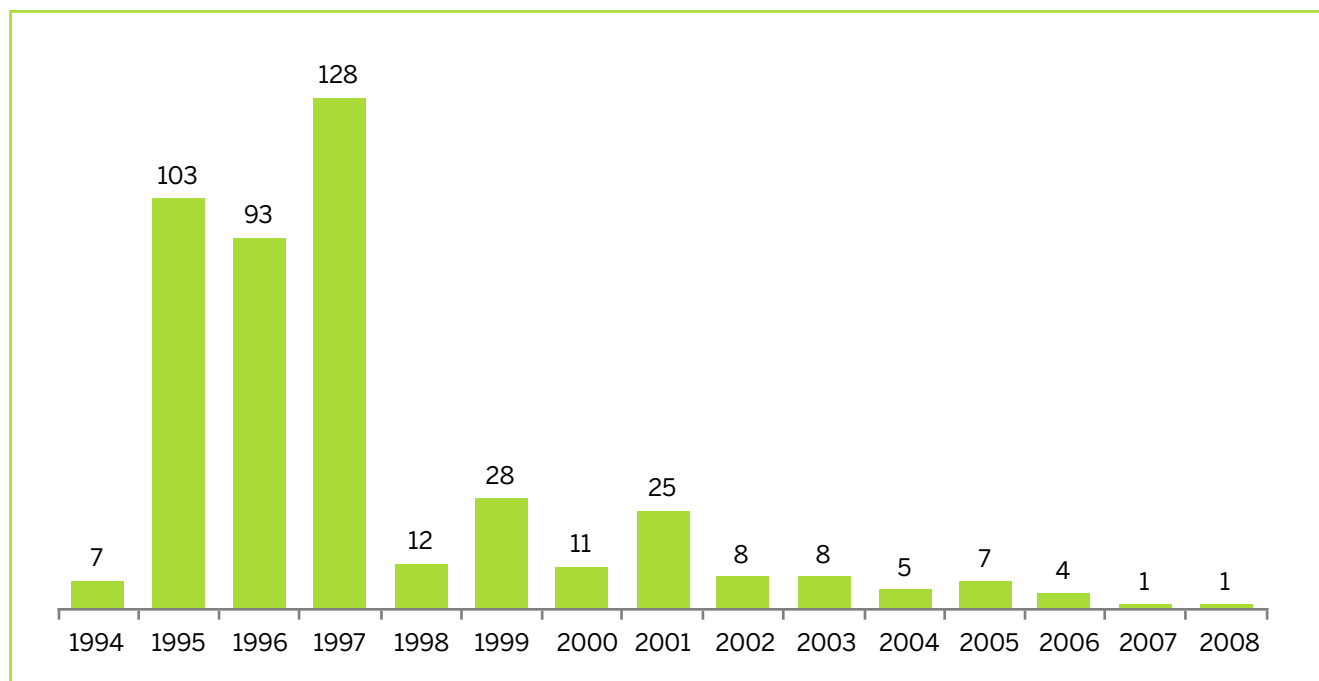


Figure 1: Reestablishment process of agrarian commons in Slovenia

5 Case study: Agrarian common Ravnik Orlovše

The case study was made in the frame of a graduate thesis (PREMRL 2008). The Agrarian Common Ravnik-Orlovše was reestablished in 1995. At the time of reestablishment 88 members had ideal shares (*pars pro diviso*) on joint ownership, nowadays as a result of inheritance there are 112 members with different shares.

Shareholders are mostly small scale forest owners, coming from the nearby town of Vipava, while 24 % of the members live in other places in Slovenia e.g. in the capital.

Another trend is also the division of the original share in the inheritance process, so according to evidence one third of the original shares has already been divided into smaller shares, so commons' land is owned by members with half, third, quarter or smaller shares of the original ideal share. These inheritance processes are recognized as a problem, because they present organizational and management problems on one hand and loss of common interests with people not living in Vipava and people owning an insignificant share of the common property on the other.

More than half of the members are over 60 years old, with a primary school education. 60 % of members are women. Majority of them live on the non-farming estate and they do not depend on farming or forestry income. The socio-economic statuses of members can lead to a different point of view on commons' role and manage-

ment. Decisions are made at the annual assemblies, while elected management board, which works on voluntary bases, has to carry out the assembly's decisions.

The common has around fifty active members. Those are members who regularly attend annual assemblies. Half of them have an interest in using benefits from the land, mainly firewood. They can be defined as more active in management, organization and in decision making process comparing to others. Shareholders expect to obtain certain financial benefits from their share (e.g. dividends, fire wood, saw logs or hay), even though those benefits are not exposed as the only one; shareholders benefit from feeling of affiliation with local community or to have a connection with home town for those living elsewhere.

The common manages 657 hectares of land, mainly forest, which is the main source of income for the common. The forest management plan Podkraj - Nanos 2006-2015 for the forest common prescribes 33,350 m³ of allowable cut. Management board organizes harvesting where best offer is selected in open call. For fire wood, in which members are interested, management board prepares as equal as possible plots, which are then raffled by interested members. Harvested wood from that plots is charged on discount price.

A rough estimation of income according to the management plan possibilities for this decade is 1.3 million EUR. Smaller part of the income presents also rentals of pastures to local farmers, who are not members of the common. On annual assemblies on the management

Sustainable Local Governance and Forest Management: the New Challenges for Forest Common Properties in the Veneto Region (Italian Eastern Alps)

Paola Gatto¹⁷, Laura Secco¹⁸, Diego Florian¹⁹ and Davide Pettenella²⁰

1 Introduction

As emerged from the discussion within the International Workshop on Forest Commons held in Burbach in October 2011, the concept of 'Forest Commons' is very wide and can be interpreted from different angles. A first essential distinction between 'common' and 'community' forests has been provided, during the seminar, by Schurr, who has defined 'common forests' as the property of a well-defined 'closed' group of persons, and 'community forests' as the 'corporate property of an open group like that of all the citizens living in a municipality'. However, other presenters have intended the concept even in a wider way, going as far as to include community-based forest management and forest cooperatives.

For the purpose of this paper, we will focus on the 'institutional' side of the concept and will refer to Forest Common Properties (FCP) as a particular type of property rights arrangement defined according to OSTROM et al. (1999) as 'a group property, in which resources are held by a group of users who can exclude others'. A similar definition, emphasising the legal status of common land ownership in Italy, comes from BASSI and DI GENIO (2011), who intend FCPs as forest land 'under the corporate ownership of a legally-defined community'. Therefore the 'resource side' of the concept of forest commons, like, for example, what we find embedded in the idea of Common Pool Resources (MC KEAN and OSTROM 1995) is not considered in this paper. Two features characterise the meaning that we give to FCPs: 1) the identification of a well-defined community; and 2) its legal status, implying the existence of a set of norms defining and guaranteeing the rights and duties of the members of the FCPs in regard to the society.

In this context the paper will first of all describe the history and the present situation of FCPs in Italy, with special focus on the Alpine areas. Then, it will present the preliminary results of a recent survey of existing FCPs in the Veneto Region, mostly focused on the property structure and of the

land and resource uses by the right-holders community. Finally, it will discuss some recent challenges that these well-rooted traditional institutions have to face today, when dealing with new global policy arenas, emerging demands and policy tools to foster sustainable management of natural resources. We argue that the traditional tools which the communities have given themselves to manage their resources might be today not always sufficient to adapt to external change and disturbances, thus sometime leading to non resilient social-ecological systems (HOLLING 1973, WALKER et al. 2002, OLSSON 2004). We support this claim through examples of conflicts recently occurred in the decision-making process of some Alpine common properties.

2 Italian Forest Commons Properties: natural, cultural and institutional background

Italy is a mountain-dominated country, with more than 30 % of its land under mountainous areas, being the Alps (1,200 km) and the Apennines (1,400 km) the two most important ranges. Isolation is one of the prominent features of these areas, and one of the reasons for the survival of local cultures and traditions in the mountains all over Italy. Despite the local differences, there is a clear common trait in all Italian mountain communities, represented by the existence of common land tenure systems and related political and social organisations (MERLO et al. 1989). Over history, the settlers of mountain areas, sharing an intimate dependence of livelihood on local scarce resources, developed – both in the Alps and in the Apennines (less in the lowlands) – their detailed set of rules and local common arrangements for the use of the agro-silvo-pastoral land. This was held as a collectively-owned resource on which each household had rights of use and duties to provide common-utility services. The common estate was managed with the purpose of providing subsistence means for the members of the community according to their needs, however respecting

¹⁷ Prof. Dr. Paola Gatto (corresponding author), Department LEAF – Land, Environment, Agriculture and Forestry University of Padua, Agripolis, Viale dell'Università, 16, 35020 Legnaro (PD), paola.gatto@unipd.it

¹⁸ Dr. Laura Secco, Department LEAF – Land, Environment, Agriculture and Forestry University of Padua, Agripolis, Viale dell'Università, 16, 35020 Legnaro (PD), laura.secco@unipd.it

¹⁹ Dr. Diego Florian, Department LEAF – Land, Environment, Agriculture and Forestry University of Padua, Agripolis, Viale dell'Università, 16, 35020 Legnaro (PD), diego.florian@unipd.it

²⁰ Prof. Dr. Davide Pettenella, Department LEAF – Land, Environment, Agriculture and Forestry University of Padua, Agripolis, Viale dell'Università, 16, 35020 Legnaro (PD), davide.pettenella@unipd.it

the most important principle of its perpetual conservation for future generations.

The social-political hierarchical system of the villages was based on households, representing the lowest social unit (called the *fuoco*, in reference to a fireplace as conceptualisation of 'home'), gathered in hamlets (*frazioni*) and finally in commons (*comuni*), aggregations of *frazioni*. According to the scale of the problem, decisions were taken by right-holders assembled at hamlet or at common level. Resources scarcity required a very conservative approach to land use, meaning users' number as low as possible, therefore the collective properties developed mostly as 'close' system types. This meant that the status of community-member, with the connected set of rights (and duties) was given solely, over time, to the descendants of the original families and transmitted through heritage (the so-called *vincolo agnaticio*). In rare cases, only a constraint of *incolato* was requested – what we may call 'open' system type, meaning that one resident of an area acquired only the use-rights, but not the ownership, after some years of permanent residence, a formal admission by the community and the payment of an 'admission' fee (TOMASELLA and MARTELLO 2010, BORTOLI 2005).

The birth of the system of collective properties is generally placed in medieval times (13th-14th century), although there are proofs of like pre-roman organisations (MERLO et al. 1989). Mostly for strategic and economic reasons, this type of land tenure and social organisation had been very much respected by the different dominations succeeded in the Italian territories – the Romans first (despite their emphasis on private property), the feudal system then, finally the Communal-federative institutions and the Republic of Venice, resulting in many examples of commonly-owned land reported even as late as the 18th century.

The turning point in the history of Italian common property occurs at the beginning of the 19th century, when the collective ownership system was abruptly swiped out first by the advent of the Napoleonic domination in Northern Italy – with its centralised conception of the State –, then by the pre-unitarian legislation inspired to the French Civil Code, and finally by the advent of the Italian State, which, in 1927, cancelled existing collective use-rights and, – de facto – also tried to cancel the idea itself of common properties. Many of them were abolished, the use-rights paid-off and their land passed to the municipalities. However, where these institutions were deeply rooted in the social structure of the village communities, they managed to survive.

Court appeals of the owners' descendants and normative changes have nowadays partially restored the initial situation, so that as much as over 3 millions hectares of forest and pasture land (10 % of total forest-pasture Italian land area) under collective-tenure systems were

estimated to exist in 1947 in Italy (INEA 1947), although with many different names expressing local heterogeneity in legislative and institutional organisations. In 2005, the Centro Studi sui demani e le proprietà Collettive di Trento (www.Jus.unitn.it/usi_civici) (reported in CARESTIATO 2008) estimated more than 500 common properties, a number which is probably greater today due to the still ongoing restitution process.

All throughout history, collective properties had a strategic importance in the socio-economic development of rural and mountain communities. Not only they acted as regulators of the resources use, but superintended to all the aspects of the community life, building productive structures and related infrastructures, offering loans and financial incentives to its members, supporting welfare, social and cultural activities and acting as safety-net in times of food shortage, famine and natural disasters. They were therefore 'a factor in social equilibrium, continuity and cohesion, in the sense that the entire Community identified in it' (MERLO et al. 1989, p. 23).

Widely acknowledged models in this regards in Italy are the Magnifica Comunità di Fiemme' (MCF) (MERLO 1995, MORANDINI 1996, DUINKER and PULKKI 1998, RUNGE and DEFRADESCO 2006) and the Regole d'Ampezzo. The MCF owns 19,000 woodlands, of which 9,000 are productive forests, with an annual production of 45,000 cubic metres, one tenth of the entire production of the Province of Trento. The Regole d'Ampezzo are an unique case in the Veneto Region, being the only landowner who has been granted the legal status of manager of a Regional Natural Park, on the same land they own and have managed for more than one thousand years (LORENZI and BORRINI-FEYERABEND 2009).

However, in the last decades, many profound changes have occurred in the rural and mountain areas of Europe, and Italy too: opening of the markets for food and labour, much wider transportation possibilities, large-scale tourism opportunities. These processes are responsible for slackening the rural communities' ties with their agro-forestry resources, no longer the only provider of subsistence means and wealth; therefore also the old regulations lost most of their importance and value (MERLO et al. 1989). In the mountain areas, the change is emphasised by the population dynamics, with the massive emigrations of the 20th century from the Northern-eastern Alps, recently counterbalanced by immigration trends, being the immigrants often completely newcomers of the area, therefore having no access to resource ownership and, in most of the cases, not even to use-rights. Symptoms of this uneasiness have been perceived even at the MCF, where a generalised weakening of the feeling of belonging of the community members has been recently noticed (CROSIGNANI, pers. comm).

3 Forest Common Properties in the Venetian Alps: results from a recent survey

Given the dynamic context of FCPs in the Venetian Alps, a survey has been undertaken in 2011 to collect some information on the situation of the FCPs land ownership. As a result, 52 FCPs officially recognised by the Regional Authority were found: they are all located in mountain areas, especially in the Northern-eastern part of the Region, corresponding to the Province of Belluno (Figure 1). This section reports and comments some main information for 87 % of the existing FCPs, while for the remaining 13 % it was not possible to collect the information, for various reasons. Table 1 reports the main features of FCPs in the Venetian Alps.

Table 1: Forest Common properties in the Venetian Alps: main features

Total area owned (hectares)	63,666
Total forest area owned (hectares)	31,072
Average number of right-holders' households per FCPs	250
Number right-holders' households in the biggest FCPs	880
Number right-holders' households in the smallest FCPs	67

All in all, the forest area owned by the FCPs in the Veneto Region cover as much as 7 % of the regional forest area and 13 % of the forest area of the Province of Belluno. The average size of the forest ownership is larger than that of private owners, but smaller than that of the municipalities.

The FCPs members still practice an active use of their ownership: Figure 2 reports the percentage of FCPs in which some traditional activities like animal grazing, collection of firewood, mushroom and litter gathering are carried out in the FCPs as private consumption uses of the right-holders.

FCPs members also use their properties for productive (i.e. aimed at the market) purposes, as shown by the data reported in Figure 3. These activities are usually undertaken by the community of owners altogether and the revenues, according to their statutes, mostly reinvested in the maintenance of the assets. In special cases, they can be partially redistributed amongst members in case of special needs of families. In other cases, they can be used for general needs of the community like building or maintaining the village school, roads, hospital and churches. The orientation of the FCPs towards forestry is clear from the Figure 3, showing that 100 % of the surveyed FCPs practice active forest management: the survey has shown that all FCPs manage their forest directly (and not, for examples through lease or concessions as in the case of agriculture, mining and hydropower generation), and that 90 % of them harvest their forest every year (which is not

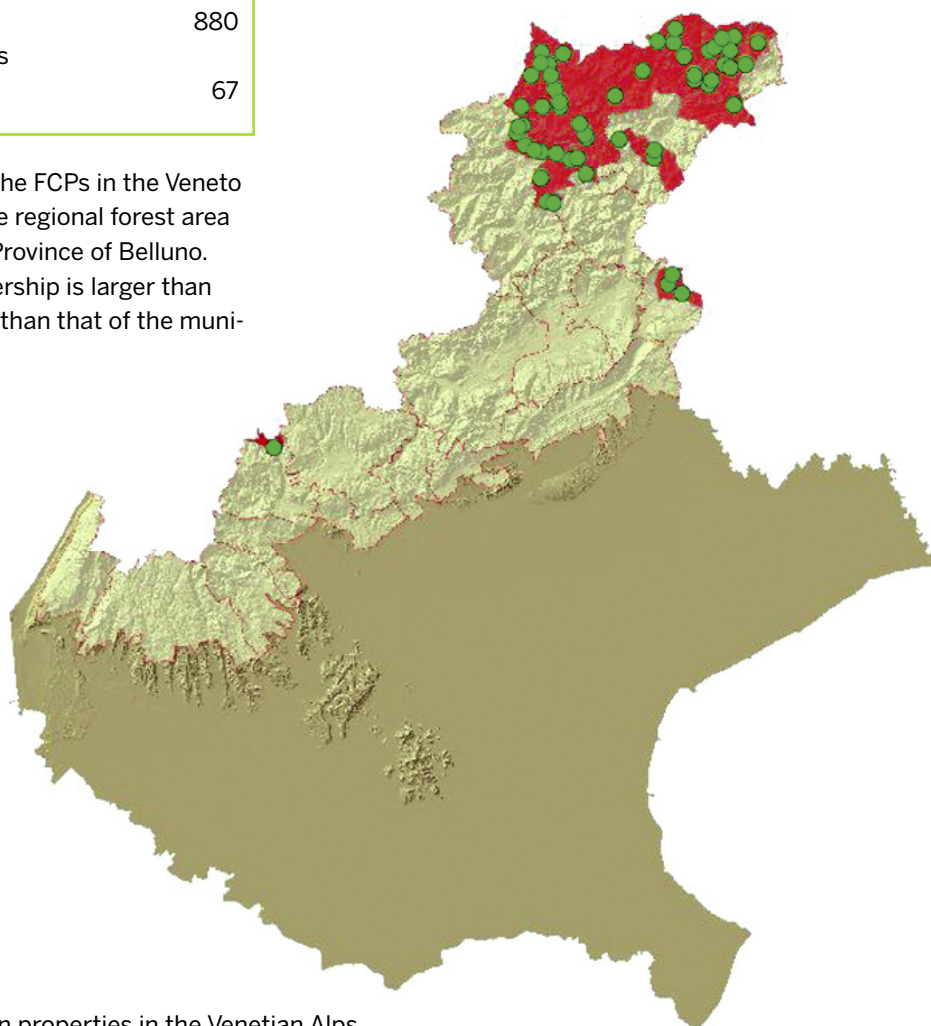


Figure 1: Location of forest common properties in the Venetian Alps

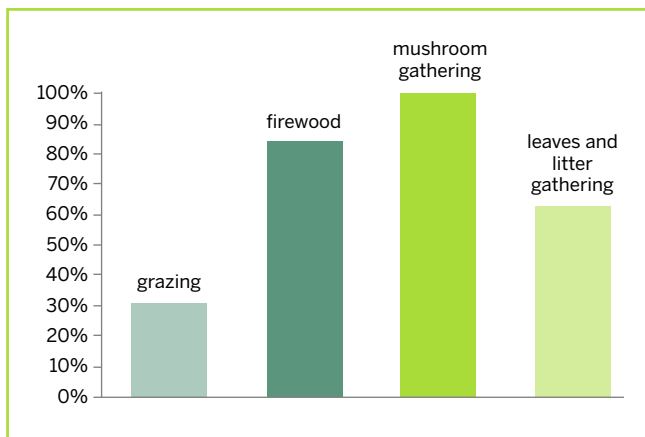


Figure 2: Consumption uses in the FCPs of the Venetian Alps (in number of FCPs on total)

a common outcome of forest ownership in Veneto, where many private forests are abandoned). In addition, 87 % of the FCP manage their forest according to a forest management plan approved by the Regional Authorities and 38 % have their forest certified under PEFC standards.

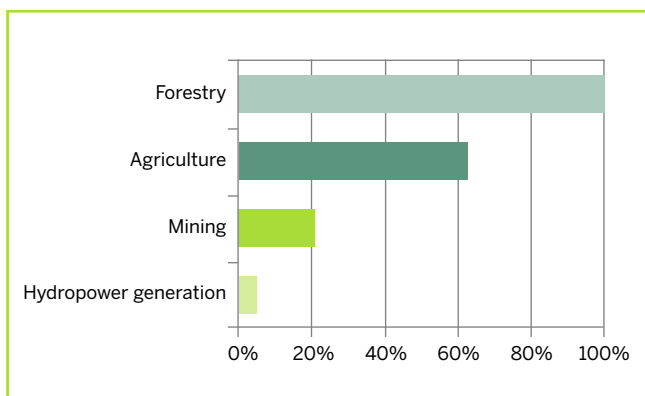


Figure 3: Production uses in the FCPs of the Venetian Alps (in number of FCPs on total)

Being large forest assets, the forest owned by FCPs are also important providers of public goods for the Veneto region population at large. Table 2 reports the share of the forest area main functions according to the prescriptions of the approved forest management plan: it emerges clearly as the ‘public goods’ share of these forests (soil protection, environmental conservation and recreation) is predominant in comparison to its productive uses.

Table 2: Forest area main functions according to forest management plan (on total forest area owned)

Production	34 %
Soil protection	25 %
Environmental conservation	34 %
Recreational	1 %

Although recreational activities in terms of ‘prescribed’ main function of forests are very low in terms of area, we were aware that recreation is indeed one on the main uses of Alpine forests by the Veneto Region population. Therefore, we have investigated the share (always in terms of numbers and not of areas) of FCPs offering some recreational land uses on their land (provided either in terms of free access or as structured recreational/educational activities). The results are reported in Figure 4.

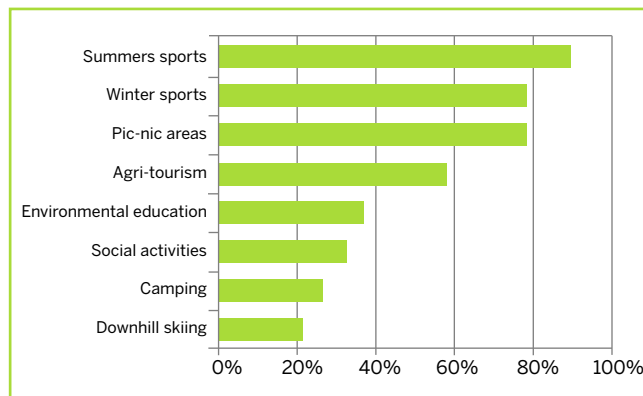


Figure 4: Recreational uses in the FCPs of the Venetian Alps (in number of FCPs offering the activity on total)

The final picture emerging from these data is that of a very rich forest asset, well-maintained, actively managed and still important in providing key goods for the local communities livelihood but also relevant for forest public goods.

4 Two stories from two Alpine forest commons: symptoms of uneasiness and conflict?

Despite this still strong link of the communities with their resources shown by the data presented in the previous section, some symptoms of uneasiness and conflicts have recently emerged in some areas, which can be looked at as signals of a weakened social cohesion. This emerges especially when development projects implying permanent land use changes are proposed on the FCPs estates by different community members or by public institutions like municipalities, provinces or the region. The FCPs landowners are then faced by the dilemma ‘conservation vs. development’, emphasised by the different perceptions of the possible benefits (and costs) between the FCPs’ community and the wider residents’ one, with unavoidable generation of conflicts. The problem is not new, and indeed it is felt inside the common properties themselves, with witnesses of and internal struggle between the need of defending traditional values and the effort of opening to the new societal stances (IANESE 2001). Our two

case-studies take shape in such a context. They are considered in the perspective of a better understanding of community and related governance mechanisms.

4.1 The case of the camping site project in Comelico

The large majority of forestland in Comelico (Northern part of the Veneto Region) is under common-property regime (BERGONZI 2005). It is an area of outstanding natural beauty, very much conserved in term of alpine landscape, where agriculture is still relatively active and touristic development smaller in comparison to other alpine valleys.

In 2001 a private entrepreneur contacted the representative of the Regola (common property owner of the land) with the idea to build a new camping site in an area near an existing small spa. The Regola expressed the will of supporting the initiative and stated its availability to provide the land. Also the municipality of Comelico Superiore, political expression of the will of the residents' community, approved the project and issued first the town planning

permission to build the camping site and related services, and later, in May 2004, also the special authorization required by the national and regional laws for landscape and cultural goods protection (a permission which was granted subject to the respect of several requirements related to environmental resources protection). However, in July 2004 such an authorization was unexpectedly withdrawn by the Ministry of Cultural Goods and Activities, motivating it with the incompatibility of the project with the environmental requirements, but rumours emerged of an internal conflict inside the Regola, with some of its members against the decision (this conflict is reported by a local newspaper article – see *Corriere delle Alpi*, 18 november 2004 in reference). In November 2004, the entrepreneur appealed against this decision at the Veneto Regional Court, which passed judgment in his favour. In 2005, the regional office of the Ministry of Cultural Goods and Activities appealed against such decision to the State Council's court and, finally in 2006, the State Council passed judgment against the entrepreneur. As a consequence of this final sentence, the camping site project was stopped in 2006, with the site already cleared off from trees and ready for the start of the works.



Mesolithic site of Mondeval

4.2 The case of the Pelmo-Mondeval ski slopes Project in San Vito di Cadore

San Vito is a village in the Boite-Ampezzo Valley, 15 kilometres from Cortina d'Ampezzo. It is located in a narrower part of the valley, in a less attractive position than the much more renowned Cortina, where the most outstanding views and appealing ski slopes are located.

To improve its touristic attractiveness during winter, therefore, the municipality of San Vito has promoted different initiatives, amongst which one was aimed at connecting San Vito with the adjacent Civetta Ski Area, one of the most attended by skiers in the Alps. The core of the problem was that the project concerned the area of Mondeval, which has a very special meaning for the common property, being part of their original estate – the *patrimonio antico* and having also an exceptional natural and archaeological value (remnants of a prehistoric warrior were discovered on the site in 1985).

At the presentation of the project, the debate arose very fiercely and the local Community split in supporters and non-supporters, with the scientific community against the project (position widely documented at www.pelmo-mondeval.it/), the local community generally in favour. The Regole of San Vito, owner of the site, found themselves in a total internal disagreement: after an initial approval of the assembly of only one of the two frazioni, the General Assembly (at municipality level) voted against the project with a narrow majority (122 versus 117) (Corriere delle Alpi, 23 may 2011) and the project was stopped.

The written accounts of the two case-studies has provided us with some interpretative elements of symptoms emerging from the cultural and the institutional dimensions. Hypotheses on the possible causes of conflicts can include:



Figure 5: Number of FCPs households and of total household residents in selected municipalities of the Veneto Region mountain area

1) generational limitations, with the old community representatives not culturally ready/willing to support land use changes in the perspective of 'non traditional' land uses. An interesting explanation of this 'land' conservationism has been provided by FOSTER (1965), who in 1965 theorised 'the sense of limited good': if the resource or the good 'exists in limited amount which cannot be expanded, and if the system is closed, it follows that an individual or a family can improve a position only at the expenses of others. Hence, an apparent relative improvement in someone's position with respect to any 'Good' is viewed as a threat to the entire community'. It is interesting to notice that this theory, although developed in the sixties, has been recently used to explain some attitudes related to envy and rivalry in the close Carnic communities (HEADY 1999) and could also be advocated to explain the behaviour of some community members in the cases of our case studies.

2) Loss of cultural identity and loosening of the links between the community members and their land, with a growing numbers of younger residents not having strong ancient roots in the territory. Indications supporting this hypothesis can be found by comparing – for the same municipality – the number of resident households with those of the right-holders (some selected examples for some FCPs in the Veneto Region are reported in Figure 5). The picture emerging is very complex: there are municipalities in which the proportion of right-holders is still very high with respect to the resident population, and others in which the representativeness is less than 50 %. The process has also a dynamic trend, with the right-holders population shrinking more than the resident population, as recently signalled by the collective properties themselves – see e.g. LORENZI (2009) for Cortina. The problem generated by this discrepancy is that most of the time, the new residents do not have the same cultural background of the locals, resulting in a generalised loss of the communities' identitarian values embodied by the common land-tenure organisation.

5 Conclusions

Common properties in the Alps have righteously been considered a paradigm in environmental conservation, and this role is not questioned at all in the paper. However, the paper looks with some worry at some recent signs of conflicts from the inside of a few selected cases of Italian common properties in the Italian Alps, in the fear that the traditional governance tools could not guarantee any more the social-ecological resilience for which they are acknowledged paladins.

The forest world is not exempt from the need of finding adaptation strategies to the new demands for participation, transparency, inclusiveness, empowerment, social justice

and equity. And indeed, new ideas and concepts are emerging from international and national experiences, from which the common properties can learn and draw ideas for conceiving new models of governance for their territory. The road is rather difficult and ambitious, and the information reported in the paper show that we are just beginning along this path. However, we believe that this is an appropriate way to adapt to the rapid changes occurring in the rural world today.

References

- BASSI, M. and DI GENIO (2011): I patrimoni di Comunità: origin, legal environments and success stories of community conservation in Italy. Presentation at the ICCA Conference on Understanding Community conservation in Europe. Gerace, Italy 11-16 September 2011.
- BERGONZI, A. (2005): Studio per la creazione di un distretto energetico in Comelico. Degree Thesis in Forest and Environmental Sciences. Department TeSAF University of Padova.
- BORTOLI, G. (2005): Spirito Cooperativo e fratellanza regoliera nei sette Comuni: il caso del Colonnello di Pedescala. Istituto Storico dei Sette Comuni Giuseppe. Nalli: Asiago.
- CARESTIATO, N. (2008): Beni comuni e proprietà collettiva come attori territoriali per lo sviluppo locale. PhD Thesis. Dipartimento TeSAF. University of Padova.
- CORRIERE DELLE ALPI, 18 november (2004): Zandonella Callegher resta presidente. Available on line at http://ricerca.gelocal.it/corrierealpi/archivio/corrierealpi/2004/11/18/BC1PO_BC106.html [access 8 september 2011].
- CORRIERE DELLE ALPI, 23 may (2011): Le Regole dicono no al collegamento sciistico. Available on line at <http://corrierealpi.gelocal.it/cronaca/2011/05/23/news/le-regole-dicono-no-al-collegamento-sciistico-4255512.html> [access 8 september 2011].
- DUINKER, P.N. and R. E. PULKKI (1998): Community forestry, Italian style: the Magnifica Communita di Fiemme. *The Forestry Chronicle* 74(3): 385-392.
- FOSTER, G. M. (1965): Peasant society and the image of limited good. *American Anthropologist, New Series, Vol. 67, No. 2 (Apr., 1965)*, pp. 293-315. Available at: <http://www.jstor.org/stable/668247> [access 30 August 2011]
- HEADY, P. (1999): *The Hard People. Rivalry, Sympathy and Social Structure in an Alpine Valley*. Amsterdam: Hardwood Academic Publishers.
- HOLLING, C. S. (1973): Resilience and stability of ecological systems. *Annual Rev. Ecol. Syst.* 4: 1-23.
- IANESE, M. (2001): *Regolieri e forestieri in Comelico*. Extracted from Chapter IV of Degree dissertation 'Proprietà collettive e Regole del Comelico'. University of Trieste. Available on line at <http://www.regole.it/Ita/Approfondimenti/index.php?opzione=0> [access 8 september 2011]
- LORENZI, S. (2009): *Scomparso l'ultimo dei Regolieri!* Available at website: <http://www.regole.it/DocAppr/scomparsoultimoregoliere.pdf> [accessed 11 June 2012].
- LORENZI, S. and G. BORRINI-FEYERABEND (2009): *The Natural Park of the Ampezzo Dolomites, Italy - a Community Conserved Area and World Heritage Site between history and modernity*. Gland, Switzerland: IUCN, ICCA, CEESP.
- MCKEAN, M. A. and E. OSTROM (1995): *Common Property Regimes in the Forest: Just a Relic from the Past?* *Unasylva* 46 (180): 3-15. Available at: <http://www.fao.org/docrep/v3960e/v3960e00.htm>.
- MERLO, M. (1995): *Common property forest management in Northern Italy: a historical and socio-economic profile*. *Unasylva* 46 (180): 58-63. Available at: <http://www.fao.org/docrep/v3960e/v3960e00.htm>.
- MERLO, M.; MORANDINI, R.; GABBRIELLI, A., and I. NOVACO (1989): *Collective Forest Land Tenure and Rural Development in Italy. Selected case studies*. Rome: FAO.
- MORANDINI, R. (1996): *A modern forest-dependent community: the Magnifica Comunità di Fiemme in Italy*. *Unasylva*, 47 (186): 47-52. Available at: <http://www.fao.org/docrep/w1033e/w1033e00.htm>.
- OLSSON, P. (2004): *Adaptive co-management for building resilience in social-ecological systems*. *Environmental management* 34: 75-90.
- OSTROM, E.; BURGER, J.; FIELD, C. B.; NORGAARD, R. B., and D. POLICANSKY (1999): *Revisiting the Commons: Local Lessons, Global Challenges*. *Science* 284 (5412): 278-282.
- RUNGE, F. and E. DEFRANCESCO (2006): *Exclusion, inclusion and enclosure: historical commons and Modern Intellectual Property*. *World Development* 34 (10): 1713-1727.
- TOMASELLA, E. and E. MARTELLO (2010): *Analisi Comparata degli Statuti. Manuale di diritto regoliero*. Belluno: Istituto bellunese di Ricerche Sociali e Culturali – Serie 'Diritto Regoliero'.
- WALKER, B.; CARPENTER, S.; ANDERIES, A.; ABEL, N.; CUMMING, C.; JANSSEN, M.; LEBEL, L.; NORBERG, J.; PETERSON, G. D., and R. PRITCHARD (2002): *Resilience management in social-ecological systems: A working hypothesis for a participatory approach*. *Conservation Ecology* 6 (1): 14. Available at: URL: <http://www.consecol.org/vol6/iss1/art14>, accessed June 11, 2012.

Governance and Benefits Sharing in the Swedish Forest Commons: an Assessment of the Shareholder Satisfaction

Mahesh Poudyal²¹ and Gun Lidestav²²

Abstract

Unlike forest commons in many other countries, within Europe and elsewhere, Swedish forest commons are formed and organised in a particular way in that the parcels (or shares) of forestlands involved are privately owned but as commons they are jointly managed by forest professionals. Furthermore, shares in forest commons are considered as “set asides” of the private landholding (farm/forest) and thus cannot be owned or sold in isolation. This leaves little space for the shareholders to be ‘hands-on’ in the management of these commons, although they are involved in decision making through a management board they elect. Moreover, it has been claimed that the shareholders in the Swedish forest commons do not bear the costs (for management and governance) proportional to the benefits they receive from their commons.

In this paper, we use data from a mail survey directed to resident shareholders in three of the major forest commons in Sweden (Jokkmokk, Tärna-Stensele, and Älvdalen) to assess their satisfaction on the governance and benefits sharing within their forest commons. This study shows that generally a significant majority of the shareholders in these three forest commons seem to be satisfied with the status quo regarding the governance/management of their commons and the benefits they accrue. However, women’s participation in most aspects of the forest commons seems to be significantly lower than their male counterpart leaving them benefiting less from their commons as a result.

Keywords: Forest management, gender, survey, Sweden.

1 Introduction

The origins of the modern Swedish forest commons (FCs) date to the late 19th century, by the time as the undesired effects of great land redistribution and privatisation

of land was being felt (NYLUND 2009, NYLUND and INGEMARSON 2007, HOLMGREN et al. 2010). In creating these forest commons, the government not only wanted to prevent the forest companies purchasing and exploiting the forestlands unsustainably to the detriment of the farmers, it also aimed to improve the local economy and create a firm base for taxation; beside making sure independent class of farmers continued to exist in Sweden (HOLMGREN et al. 2010, CARLSSON 1997, 1999).

Unlike forest commons in many other countries, within Europe and elsewhere, Swedish forest commons are formed and organised in such a way in that the parcels (or shares) of forestlands involved are privately owned, but as commons they are jointly managed by forest professionals. Furthermore, shares in forest commons are considered as “set asides” of the private landholding (farm/forest) and thus cannot be owned or sold in isolation. However, these shares can be transferred, usually to family members as inheritance, or sold along with the associated private holdings, thereby paving way for even an outsider to get access to the commons. Moreover, shareholders in the commons could not only be the individuals but could also be companies, the church or the State as long as they own the corresponding property linked to the share in the forest common (CARLSSON 1997).

From 1861 to 1918, a total of 33 forest commons were established in Sweden. These forest commons currently cover about 0.5 million hectares of productive forestland, with about 25,000 individual shareholders. Among these individual shareholders, roughly 20 % are thought to be remote owners of the forests (ibid.). The Forestry Act and corresponding regulations that relate to the management of Swedish forests also apply for the forest commons, in addition to the specialised law like the Forest Commons Law (1952) (HOLMGREN et al. 2004). In terms of jurisdiction, the Swedish Forest Agency and the County Administrative Board oversee the running of the forest commons; however, as CARLSSON (1997) states, the latter one is “largely a formality”. However, HOLMGREN et al.

²¹ Dr. Mahesh Poudyal, Forest in Rural Studies, Department of Forest Resource Management, Swedish University of Agricultural Sciences (SLU), SE-901 83 Umeå, Sweden, mahesh.poudyal@slu.se

²² Prof. Dr. Gun Lidestav, Forest in Rural Studies, Department of Forest Resource Management, Swedish University of Agricultural Sciences (SLU), SE-901 83 Umeå, Sweden, gun.lidestav@slu.se

(2010), in their paper on the governance of forest commons in Sweden, come to the conclusion that unlike in other forest management regimes and forest policies, government control in the forest commons and policies pertaining to the commons is still strong. In terms of day-to-day governance and management of the forest commons, the primary responsibility lies with a management board elected by the shareholders. Moreover, every forest common must have, by law, a professional forest manager for all its forest management activities (CARLSSON 1997, HOLMGREN et al. 2004).

It is not surprising then that, as CARLSSON (1997) points out, a lot of the forest commons in Sweden are managed like commercial enterprises. The benefits accruing to the shareholders from these enterprises however depend upon the bylaws of each common, with some giving annual cash payments as dividend, some providing subsidies to carry out forestry-related activities in their private property, some providing both these benefits, while others providing no direct benefits to shareholders instead choosing to use profits in local public goods such as roads, schools etc. These differences have also been highlighted by the previous studies on the Swedish forest commons (see for example HOLMGREN et al. 2010, HOLMGREN et al. 2007, HOLMGREN et al. 2004). Moreover, it has also been shown that not all forest commons are equally successful in terms of governance/management and in generating revenues for their shareholders (ibid.). This last point leads us to the question how satisfied the shareholders are in Swedish forest commons.

In this paper, we use data from a mail survey directed to resident shareholders in three of the major forest commons in Sweden (Jokkmokk, Tärna-Stensele, and Älvdalen) to assess their satisfaction on the governance and benefits sharing within their FCs. More specifically we explore whether the shareholders' gender influence their level of involvement in the governance and in benefits sharing, and hence on their satisfaction with regards to the governance and resource utilisation from their commons.

2 Methodology and Data

In this study, we try to combine 1) questionnaires eliciting participation in the management/governance, use, and appropriation of benefits from the forest commons; 2) questionnaires eliciting the perception of the respondent shareholders regarding the benefits and costs of the forest commons; and 3) questionnaires eliciting their 'opinions' and levels of 'agreement' on how their FCs and benefits from them are being managed, and how they should be managed. The idea is to combine data from the level of participation in the governance/management and benefits sharing from the FCs; shareholders' perceptions

on aforementioned matters regarding their FCs; and their opinion regarding the status quo and whether it should change so as to gauge their level of satisfaction, and conduct a thorough analysis of the current situation. This should not only help come to an informed conclusion regarding the shareholder satisfaction on the management/governance of and benefits sharing from the forest commons, but should also have an important policy relevance with regards to the commons.

This study is based on the shareholder survey data collected in three of the major forest commons in Sweden: Jokkmokk in Norrbotten, Tärna-Stensele in Västerbotten and Älvdalen in Dalarna. In this study, a questionnaire was designed to capture the local shareholders' opinions about what the forest commons contribute to them as individuals (households), and to the local community, in terms of economic welfare, landscape identity and the quality of the environment. In order to maintain the local perspective, only resident shareholders in the three FCs were included in the study. Only individuals (no companies or other juridical persons) were included.

Before administrating the survey questionnaires, the shareholders were divided into three strata based on the size of their individual share in the FC: the 25 % largest shareholdings, the 50 % intermediate, and the 25 % smallest shareholdings. As previous studies on small-scale private forest owners points to a significant difference in management involvement between women and men (see for example LIDESTAV 2010, LIDESTAV and NORDFJELL 2005, LINDROOS et al. 2005), we decided to further split each stratum into female and male shareholders. Thus, shareholders for each common were divided into six strata. We decided to limit each group to 50 individuals, selected by uniform random sampling, but some of the groups contained fewer than 50 shareholders (this was taken into account in the statistical calculations). In total, 862 questionnaires were sent out in March 2009. After two reminders, 423 questionnaires were returned and the results are thus based on a total response rate of 49 %. At the stratum level the response rate varied substantially, from 23 % to 65 %, and at the FC level from 44 % in Jokkmokk to 53 % in Älvdalen. The response rate for women was 48 % compared to 50 % for men. Although the response rate may be considered low, it should be noted that the responses represent 22 % of the population.

The collected data, which was primarily categorical and descriptive in nature, was analysed using STATA 11.2 (STATA CORP 2009). The main statistical tools used were ranking of responses, cross-tabulation and chi-square tests, particularly using various strata to compare and contrast the responses of shareholders belonging to different strata, and to test whether these responses were statistically significant.

3 Results

3.1 Stated participation and benefits in the forest commons

In terms of participation and benefits from the FCs, fishing and outdoor recreation was the most participated activity (61 %), followed by receipt of cash payment from the FC (46 %), receiving subsidies from the FC for activities on their private property (46 %), and hunting on the FC land (41 %) (Table 1). Moreover, only 4 (1 %) of the respondents said they had 'no contact or benefit from the FC'. Views regarding the participation in and benefits from the FC varied significantly between the male and female respondents. Female shareholders were found to participate significantly less than their male counterparts in many of the activities. Their participation was significantly less in 1) governance of the commons, for example, as 'elected representative' or in 'annual meetings/general assembly'; 2) the use of the common lands such as for 'hunting'; 'fishing & outdoor recreation'; and 3) receiving cash payment from the commons (p-value < 0.05 for all).

3.2 Perceived benefits, costs and local contributions of the FCs

'FCs benefit by providing spaces to hunt, fish and for other recreation' – this was the top perceived benefit from the FCs with a total of 67 % of the respondents agreeing to it (Table 2). Other highly thought-of benefits from the FCs were the 'provision of roads' (56 %), 'subsidies' (48 %), 'local employment' (47 %), and 'keeping revenue/income locally via local subsidies' (45 %). Overall respondent shareholders perceived much higher benefits from the FCs than otherwise – only about 3 % mentioning they provide 'no benefits at all'. There were significant variations in the perceived benefits from the FCs between male and female respondents. Significantly higher proportion of male shareholders perceive benefits

from FCs through 'large scale forestry', 'direct income', 'spaces to hunt, fish and recreation', and 'local employment'; while significantly higher proportion of female shareholders perceive benefits from FCs by helping manage part of their forests without themselves 'bothering' (p-value < 0.05 for all).

It is clear from the responses that generally a high majority of the respondents (64 %) perceive no disadvantages from their FCs (Table 3). The difficulty to 'get most shareholders to agree & act for a common goal' was perceived as one of the main disadvantages, though by only 25 % of the respondents. Other perceived disadvantages include 'lack of control and impact on 'my share' in the FC' (9 %), 'FCs provide too little profit' (8 %), and 'too many shareholders' (7 %). All these responses indicate that overall, the respondents see FC as providing benefits rather than creating disadvantages for them. In terms of variations in perceived disadvantages between male and female respondents, significantly more male shareholders perceived 'lack of control on their own share in the FC' as being the disadvantage of the FC compared to female shareholders (p-value = 0.027). However, as with other strata, there were no other significant differences between male and female shareholders regarding their perceived disadvantages of the FCs.

3.4 How should the FCs be managed?

The respondent shareholders were given a list of statements concerning the management and utilisation of benefits from their FCs, and were asked to choose what priority those actions should be given – with 'higher priority', 'lower priority', 'fine as it is', and 'no opinion' being the four options for each statement – in order to gauge their satisfaction (or lack thereof) at the way their FCs are managed/governed and the way their FCs revenues are being used. Overall, it is clear that a majority of the respondents seem to be satisfied with the status quo (based on their response 'fine as it is' to the statements), except

Table 1: Overall participation in and appropriation of benefits from the FC activities as stated by the respondent shareholders

(The top five items are ranked in descending order based on the number of responses each received.)

Participation in & benefits from FC activities	Frequency	Percent of cases
I fish & do outdoor recreation on FC land/water	252	61.02
I receive cash payment from the FC	196	47.46
I receive subsidies from the FC for different activities on my private property	191	46.25
I hunt on the FC land	168	40.68
Take part in annual meetings/general assembly	130	31.48
Valid Cases: 413	Missing Cases: 10	

Table 2: Overall perceived benefits of the FC

(The top five items are ranked in descending order based on the number of responses each received.)

Benefits of the FC	Frequency	Percent of cases
FCs benefit by providing spaces to hunt, fish and for other recreation	274	66.83
FCs benefit through the provision of roads	231	56.34
FCs provide benefits through the subsidies	196	47.80
FCs provide employment locally	193	47.07
FCs benefit by keeping revenue/income locally via local subsidies	185	45.12
Valid cases: 410	Missing cases: 13	

for one area – ‘hydroelectric and wind power’, which a larger section of the respondents seem to think should be given a higher priority (Table 4).

We further analyse these responses in depth based on the gender of our respondents. Particularly we analyse the ‘fine as it is’, ‘have no opinion’, and ‘higher priority’ responses – each indicating, generally speaking, ‘satisfaction’, ‘indifference’, and ‘dissatisfaction’ respectively with the status quo. The response ‘lower priority’ was excluded from this in-depth analysis as there were very few respondents choosing this option to have a meaningful statistical analysis. Our in-depth analysis on the ‘fine as it is’ response to the statements regarding the management of the FCs and use of the revenues from them showed that there was no significant variation between respondents based on their gender. Therefore, in general, we can conclude that majority of the respondents were, regardless of their gender, satisfied with the status quo regarding the management and use of revenue from their FCs.

A considerably large number of shareholders had responded with ‘have no opinion’ on the statements regarding the management and use of revenues from their FCs. Furthermore, a significantly higher proportion of female respondents had ‘no opinion’ on many of the issues related to the management and sharing of benefits from the FCs than their male counterparts. Particularly, significantly more female respondents (proportionally) said they

had ‘no opinion’ regarding ‘forest production’, ‘hunting and fishing’, ‘asset management’, and ‘considerations to other businesses’ compared to their male counterparts (p-value < 0.05 for all).

Around 15 % of the respondent shareholders, on average, responded that a higher priority should be given to various aspects of FC management and use of benefits, indicating that they were not entirely satisfied with the way things were being managed at present (i.e., the status quo). Upon further investigation, we found that generally there was no significant difference in responses between male and female respondents. However, there were some exceptions. A significantly large number of male respondents were of the opinion that forest production, and hydro and wind power should be given ‘higher priority’ compared to their female counterparts.

3.5 Satisfied with the way the revenue is being used?

A set of four statements related to the use of the revenue from their FCs were put to the respondents, and asked whether each should ‘increase’, ‘decrease’, ‘is fine as it is’, or they had ‘no opinion’ regarding the item. Generally more than half of the respondents for all four statements perceived the current distribution of the FCs’ revenue to be ‘fine as it is’, indicating their overall satisfaction with the status quo (Table 5). Interestingly, second most res-

Table 3: Overall perceived disadvantages with the FC

(The top five items are ranked in descending order based on the number of responses each received.)

Disadvantages with the FC	Frequency	Percent of cases
FCs have no disadvantages	214	64.34
Hard to get most shareholders to agree & act for a common goal	93	24.93
Lack of control and impact on ‘my share’ in the FC	33	8.85
FCs provide too little profit	30	8.04
Too many shareholders	28	7.51
Valid cases: 373	Missing cases: 50	

Table 4: Responses to statements regarding how their FCs should be managed (Overall valid cases 396, 27 missing – number of valid and missing cases for each statement is provided in the parentheses in the first column.)

Statements (valid/missing)	Responses Frequency (% of cases)			
	higher priority	lower priority	fine as it is	no opinion
Forest production should be given ... (362/61)	36 (9.94)	17 (4.70)	232 (64.09)	77 (21.27)
Hunting and fishing should be given ... (365/58)	50 (13.70)	18 (4.93)	248 (67.95)	49 (13.42)
Hydroelectric or wind power should be given ... (350/73)	128 (36.57)	29 (8.29)	90 (25.71)	103 (29.43)
Asset management should be given ... (342/81)	33 (9.65)	5 (1.46)	186 (54.39)	118 (34.50)
Recreation should be given ... (350/73)	50 (14.29)	5 (1.43)	227 (64.86)	68 (19.43)
Biodiversity conservation should be given ... (353/70)	59 (16.71)	16 (4.53)	202 (57.22)	76 (21.53)
Cultural heritage should be given ... (344/79)	50 (14.53)	5 (1.45)	195 (56.69)	94 (27.33)
Considerations to women's forest ownership should be given ... (351/72)	59 (16.81)	4 (1.14)	180 (51.28)	108 (30.77)
Considerations to other businesses should be given ... (358/65)	30 (8.38)	32 (8.94)	203 (56.70)	93 (25.98)

ponded choice was that of 'no opinion' for three of the four statements. Significantly less female respondents (proportionally) seemed to agree that the current structure of benefits distribution/revenue utilisation from the FCs was 'fine as it is' compared to their male counterparts (p -value < 0.05 for all four statements). This could likely mean female respondents/shareholders, in general, were not satisfied with the status quo with regards to the use of revenue. However, looking at the distribution of the 'no opinion' responses further, it becomes clear that a significantly large proportion of female respondents had 'no opinion' regarding the current scheme of revenue sharing from the FCs compared to their male counterparts ($p < 0.001$ for all four statements).

3.6 "Pleased to be a FC shareholder"

89 % of the respondents agree (72 % totally agree, 17 % partly agree) to the statement 'I am very pleased to be a FC shareholder', which shows a high level of satisfaction with the status quo in the management of and the use of benefits from the FCs. A similar pattern is apparent on the responses to other statements presented to gauge the shareholder satisfaction – 79 % agreeing that the FC has contributed to a positive development of their community, 74 % agreeing that the FC has contributed to their personal well-being, and 71 % agreeing that the FC contributes to a fair distribution of resources as well as to overall better use of natural resources (Table 6). In contrast, only 32 % agreed

Table 5: Responses to statements regarding how the revenue from the FCs should be spent

(Overall valid cases 406, 17 missing – number of valid and missing cases for each statement is provided in the parentheses in the first column.)

Statements (valid cases/missing)	Responses Frequency (% of cases)			
	should increase	should decrease	fine as it is	no opinion
Dividend to the shareholders ... (379/44)	65 (17.50)	10 (2.64)	242 (63.85)	62 (16.36)
Dividend for common benefits ... (365/58)	44 (12.05)	11 (3.01)	209 (57.26)	101 (27.67)
Proportion of revenue that stays locally ... (364/59)	81 (22.25)	1 (0.27)	190 (52.20)	92 (25.27)
Proportion of revenue that stays with the individual forest owners ... (350/73)	42 (12.00)	9 (2.57)	182 (52.00)	117 (33.43)

Table 6: Responses to some concluding statements related to FCs governance/management and utilisation of benefits (Overall valid cases 410, 13 missing – number of valid and missing cases for each statement is provided in the parentheses in the first column.)

Statements (valid cases/missing)	Responses Frequency (% of cases)			
	totally agree	partly agree	not at all	no opinion
[1] I am very pleased to be a FC shareholder (400/23)	287 (72)	67 (17)	12 (3)	34 (8)
[2] FC has contributed to a positive development of my community (386/37)	196 (51)	108 (28)	18 (5)	64 (16)
[3] FC has contributed to my personal well-being (388/35)	174 (45)	112 (29)	25 (6)	77 (20)
[4] FC contributes to more fair distribution of resources than individual ownership (386/37)	172 (44)	103 (27)	24 (6)	87 (23)
[5] FC contributes to overall better use of natural resources (380/43)	161 (42)	109 (29)	24 (6)	86 (23)
[6] FC contributes more to other interests like tourism, nature conservation etc. (382/41)	151 (39)	111 (29)	26 (7)	94 (25)
[7] FC has been a good role model for my own forest management (381/42)	114 (30)	140 (37)	31 (8)	96 (25)
[8] FC is a source of conflicts between the shareholders (380/43)	30 (8)	90 (24)	167 (44)	93 (24)
[9] FC is a source of conflicts between shareholders and non-shareholders (377/46)	23 (6)	71 (19)	169 (45)	114 (30)

(44 % 'not agree at all') to FC being a source of conflicts between the shareholders, and just 25 % agreed (45 % 'not agree at all') to FC being a source of conflicts between shareholders and non-shareholders.

An analysis into these responses by gender also confirms that generally a majority of the shareholders seem to be satisfied with the status quo with regards to their FCs. However, when responses 'totally agree' and 'partly agree' are taken together to mean 'agree', there are some significant differences in the responses between male and female respondents. A significantly larger proportion of male, compared to female respondents, agreed that 'FC contributes more to other interests like tourism', 'FC contributes to overall better use of natural resources', 'FC has been a good role model for my own forest management', and 'FC has contributed to a positive development of my community' (p-value < 0.05 for all). On the other hand, significantly more male respondents (proportionally) do not agree with the statements regarding conflicts between shareholders, and between shareholders and non-shareholders (p-value < 0.01 for both). Overall, a significantly larger proportion of female, compared to male respondents, had 'no opinion' on a number of statements put to them regarding the management and sharing of benefits from their commons (p-value < 0.01 for all statements in Table 6 except [4] where p-value was 0.042).

4 Discussion

It is important to note, at first, that our survey data reveals a generally high level of satisfaction with the status quo with

regards to the way FCs are being governed/managed and the way the revenues from the FCs are being shared/utilised. Being industry-driven and professionally managed forestry operations, it is not surprising to see that the most participated activity in the commons was fishing and outdoor recreation, followed by hunting, i.e., non-timber related forest activities. In terms of appropriation of benefits from the commons, cash payments, and subsidies for activities on private property were the common benefits the shareholders received; however, the rates are low for both at below 50 %. We believe this could be due to two main reasons. First, not all shareholders in the commons were receiving cash payment and/or subsidies for the management of private property. Second, not all of the three forest commons were providing cash payment and subsidies to their shareholders. For example, Älvdalen was primarily providing subsidies and no cash payment, while Tärna-Stensele was primarily giving out cash payments but no subsidies.

However, one crucial result stands out from the analysis of participation in the commons – that female shareholders' participation is significantly low in all areas from governance/management, to use of the forests (for recreation etc.), to receiving cash payment from the commons. It is not surprising that female participation is low in activities like hunting and fishing, which are primarily male-dominated activities. Furthermore, despite growing female forest ownership in recent years, their participation in various forest management activities are found to be relatively low compared to their male counterparts (LIDESTAV 2010, LIDESTAV and NORDFJELL 2005, LIN-

DROOS et al. 2005). Moreover, it has been reported that agriculture and forestry sectors are lagging behind in gender equality compared to most other areas of the Swedish society (Ds 2004:39). It is not surprising that the responses on perceived benefits and disadvantages from the commons follow the responses on the participation, with provision of spaces for hunting, fishing and other recreation perceived to be the main benefits of the FCs. Responses related to perceived benefits and disadvantages of the FCs not just indicate how a shareholder is/might be benefitting from her/his commons, but they also provide us a shareholder's general attitude towards the commons.

In general, what we see from these two sets of responses is that the shareholders largely held a positive attitude towards their forest commons. There are variations of course, particularly between male and female shareholders, with significantly low proportion of the latter seeing benefits from their commons compared to the former. But again, this leads us to a generally low participation of women in governance/management as well as in appropriation of benefits from these commons. This is further highlighted by the fact that a significantly large proportion of male shareholders compared to female perceived 'lack of control on their own share in the FC' as being one of the few disadvantages of the FCs, indicating that they wanted to be more hands-on in the management of their shareholding in the commons, or would prefer that they were given their share to be privately managed.

4.1 Gauging shareholder satisfaction: How should the FCs be managed?

Based on the analyses of the survey data, the answer to this question is rather simple: the FCs should be managed the way they are being managed now. However, there are a number of finer details. One interesting response overall was that the shareholders were largely of the opinion that renewable power generation (hydroelectric and wind) should be given higher priority by the FCs. In terms of the respondents' views about how the revenues from their FCs were being used, again, we find an overall satisfaction with the status quo. However, the response 'no opinion' features very prominently for queries related to both the management and use of benefits from the FCs. Moreover, in-depth analyses of the three responses (equating largely to 'satisfaction', 'indifference', and 'dissatisfaction') regarding the management of and use of revenue from the FCs provide us with some interesting results, which we discuss below. Interestingly, there was no significant variation between the male and female respondents on the 'fine as it is' response, further supporting the case for an overall satisfaction with the status

quo. However, when it came to the details on the way revenue from the FCs was being used, although a majority of female respondents also seem to favour the status quo in line with the overall responses, in comparison with their male counterparts, fewer of them seem to think the current structure of management and use/sharing of the revenue from the FCs was 'fine as it is'. Furthermore, it is clear that a significant number of the female respondents were actually indifferent ('no opinion' response) with regards to the management and use of benefits from the FCs. This is a very important finding, as this could not just mean they genuinely have 'no opinion' in these matters, but it could also mean they are protesting as they seem to be represented less not just in the management/governance structures, but also in the appropriation of benefits. The dissatisfaction with the status quo was often highlighted by the 'should increase' or 'should be given higher priority' responses. However, only 10-15 % of the respondents on average expressed dissatisfaction with the status quo by choosing these alternatives. Only one case really highlighted an overall sense of the dissatisfaction, and that was related to the production of renewable energy. More respondents wanted renewable energy given a 'higher priority' than those mentioning that the situation was 'fine as it is'.

4.2 Conclusion and Policy Implications

This paper attempted to analyse the satisfaction (or lack thereof) among the shareholders of three of the major Swedish forest commons (Jokkmokk in Norrbotten, Tärna-Stensele in Västerbotten and Älvdalen in Dalarna,) through an assessment of their participation (in using and benefit sharing) in their forest commons, their perception of benefits and costs of their commons, and their views regarding the management of and sharing/utilisation of benefits from their commons. Although a majority of shareholders expressed general satisfaction to the status quo regarding the governance/management and utilisation of revenue from their commons, a significant proportion expressed indifference through 'no opinion' response.

Furthermore, a significantly larger proportion of these with 'no opinion' were female members of the commons. This is a major concern, especially at a time when the participation in the forest commons is declining generally and a number of forest owners (and hence FC shareholders) are becoming non-resident owners/shareholders by moving away to larger towns and cities (NYLUND and INGEMARSON 2007). Success of any community-based resource management institution depends on the involvement of its members, not only in appropriating benefits (as is often the case in Swedish forest commons) but also in active participation in formulating and implementing plans and policies to govern/manage the commons (in

attending meetings, for example), thereby incurring their fair share of the costs (MCKEAN 1998). Moreover, a balanced participation in any community groups to reflect the composition of the community, such as male and female, small and large landholders and so on is often necessary for the success of the group. Thus, exploring further the cause(s) of this indifference and dealing with them should be a major policy priority for continued success of these commons.

Although small in number (and in proportion), there are certainly some grievances with regards to the current governance/management and use of revenues from these commons among some shareholders. In particular, there seem to be a legitimate concern among a large number of shareholders regarding the involvement (or lack thereof) of their commons in investing in renewable energy such as wind and hydropower. A successful common not only recognises the legitimate grievances of its members but also provides forum/opportunities to express and discuss such grievances, as examples of Japanese and Swiss commons demonstrate (MCKEAN 1998, 1995, 1992, 1991). In this regard, it is important that these forest commons create or devise institutional arrangements such that grievances of these kinds can be expressed in a democratic way for discussions and debates, and decided upon democratically.

Finally, one major concern for all the forest commons studied is the lower level of participation of female shareholders/members in all aspects of the commons – from governance/management, appropriation of benefits, to expressing views about how the commons should be governed/managed and how revenues utilised (in other words, policy and planning). As stated earlier, it is important not just to have participation in the commons, but also to have a “balanced participation” reflecting the community at large for the success of these commons in the long run. Encouraging greater participation of women in all aspects of their forest commons should therefore be a major policy priority for these commons.

5 References

CARLSSON, L. (1997): The Swedish Forest Commons: a common property resource in an urban, industrialised society. Rural Development Forestry Network Paper 20e (Winter 1996/97): 1-13.
 CARLSSON, L. (1999): Still going strong, community forests in Sweden. *Forestry* 72 (1): 11-26.
 Ds 2004:39: Det går långsamt fram ... – jämställdheten inom jord – och skogsbrukssektorn. Ds 2004:39, Jordbruksdepartementet, Stockholm.

HOLMGREN, E.; HOLMGREN, L. and G. LIDESTAV (2007): Comparison of harvesting and business activities of non-shareholders and shareholders in a forest common in Vasterbotten, Sweden. *Scandinavian Journal of Forest Research* 22 (6): 582-592.

HOLMGREN, E.; KESKITALO, E.C.H. and G. LIDESTAV (2010): Swedish forest commons – A matter of governance? *Forest Policy and Economics* 12 (6): 423-431.

HOLMGREN, E.; LIDESTAV, G. and G. KEMPE (2004): Forest condition and management in Swedish forest commons. *Small-scale Forest Economics, Management and Policy* 3 (3): 453-468.

LIDESTAV, G. (2010): In competition with a brother: Women's inheritance positions in contemporary Swedish family forestry. *Scandinavian Journal of Forest Research* 25: 14-24.

LIDESTAV, G. and T. NORDFJELL (2005): A conceptual model for understanding social practices in family forestry. *Small-scale Forest Economics, Management and Policy* 4: 391-408.

LINDROOS, O.; LIDESTAV, G. and T. NORDFJELL (2005): Swedish non-industrial private forest owners: A survey of self-employment and equipment investments. *Small-scale Forest Economics, Management and Policy* 4: 409-442.

MCKEAN, M. A. (1991): Defining and dividing property rights in the commons: Today's lessons from the Japanese past. Paper presented at Second Conference of the International Association for the Study of Common Property, 26-29 September 1991, Winnipeg, Manitoba, Canada.

MCKEAN, M. A. (1992): Success on the commons: A comparative examination of institutions for common property resource management. *Journal of Theoretical Politics* 4 (3): 247-281.

MCKEAN, M. A. (1995): Common property regimes as a solution to problems of scale and linkage. Paper presented at “Reinventing the Commons” – Fifth Conference of the International Association for the Study of Common Property, 24-28 May 1995, Bodø, Norway.

MCKEAN, M. A. (1998): Common property: What is it, what is it good for, and what makes it work? In: GIBSON, C.; MCKEAN, M. A. and E. OSTROM (eds.): *Forest Resources and Institutions*. Rome: FAO, pp. 23-47.

NYLUND, J.-E. (2009): Forestry legislation in Sweden, 14: Report No 14. The Swedish University of Agricultural Sciences, Department of Forest Products, Uppsala.

NYLUND, J.-E. and F. INGEMARSON (2007): Forest tenure in Sweden – a historical perspective, 5: Report No 5, The Swedish University of Agricultural Sciences, Department of Forest Products, Uppsala.

STACORP (2009): *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP.

Shared Property in Forests – Property Rights and their Implementation in Common and Community Forests

Christoph Schurr²³

1 Introduction

I grew up in a small city of 8,000 inhabitants on the Schwäbische Alb, a mountain range in southwest Germany. We children often played in the forests encircling the city. Of course, there were other users of the forest: people cutting timber and firewood, hunters, hikers, not so many cyclists at that time, and water catchments for the city. A forester was looking over all these uses.

Later, I learned that this forest of almost 1,000 ha was not “our” forest, but was owned by 93 families in the city. In fact, there had been 93 common rights since the 16th century when that number was closed. These rights or shares were now split up between approx. 120 commoners. For almost 500 years they have practiced sustainable forestry.

The experience from my adolescence can be translated like this: the forests of my youth are a common pool resource and they are owned as common or shared property. These two concepts are the topic of this article.

2 Some basic concepts for analyzing the utilization and governance of natural resource systems

2.1 Resource system

A forest is not just an ecosystem but rather a resource system. A resource system (like a river, a range or a forest) encompasses an ecosystem and a social system. From a resource stock (in forests e. g.: soil, trees, biodi-

small scale private forests in Bautzen county

Quelle: Basiskarte Sachsen © Landesvermessungsamt Sachsen 2007

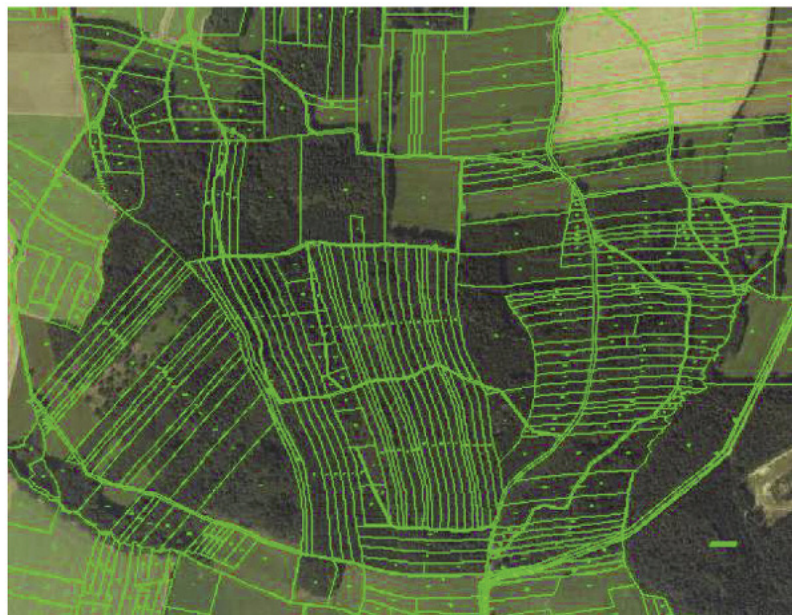
private forests in Bautzen county

forest area:
63.600 ha (70%)

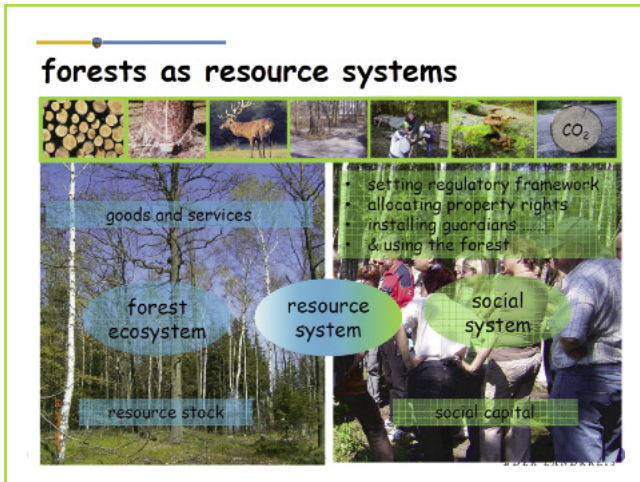
property units
> 14.000

*average size
(„smallness“):*
Ø 4,5 ha ???

owner-ranger ratio:
> 1.400 owners/
ranger district

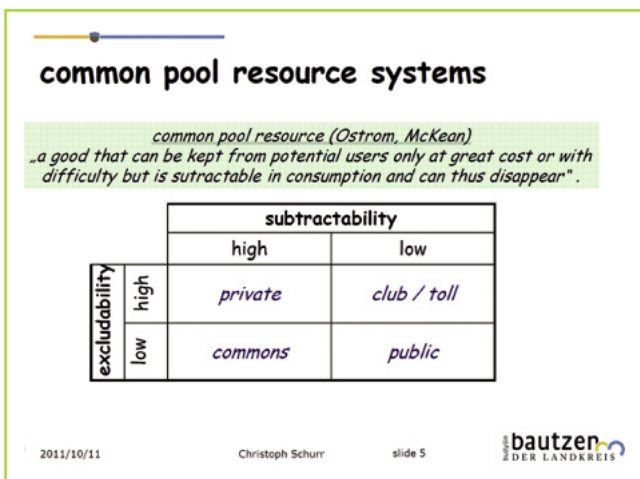


²³ Dr. Christoph Schurr, Bautzen County Forest Administration (Germany, Saxony), christoph.schurr@lra-bautzen.de.



versity, infrastructure) many goods and services (timber, fire wood, venison, water, recreation, clean air, resin, CO₂-sequestration, environmental education etc.) are produced and can be taken. The social system also has a “capital stock” (social capital). The “products” of its members’ activities are e.g. rules for its use, property rights and guardians watching over the rules. And its members consume the goods and services produced by the resource stock.

As we have learned from Nobel Laureate Elinor Ostrom, forests are in many cases common pool resources or rather common pool resource systems (OSTROM 1990). Some of the forests’ goods and services are private, some are club/toll, some are public, and some are by themselves common pool goods. However, for classifying a resource system it is decisive to look at the resource stock. And this stock in forests is mostly common pool. Common pool resources are “goods that can be kept from potential users only at great cost or with difficulty but that are subtractable in consumption and can thus disappear” (OSTROM 1998).²⁴



Within the social system rules or institutions for the use of the resource system are set up. To put it simple: it should be clear, e.g. who sets the rules, who takes care of the resource and who is allowed to take the goods and services, what the long term goals of management of the resource system are and how everyday management is done. Property rights, their type and their allocation to individual persons or groups are important institutions in this context.

2.2 What is property?

In fact, there is no all-encompassing definition of what property is. In forestry, property is usually seen as the ownership of a forest parcel. Besides such a spatial perspective, property has legal and temporal aspects. Legal aspects for this forest parcel are that:

- the owner can harvest timber and firewood or go hunting; if it is large enough, if not, he has to share that privilege with others;
- a private entrepreneur owns the rights to exploit the gravel beneath;
- everybody can recreate and collect mushrooms on the forest land without the owner’s consent;
- the forest as a habitat for biodiversity is protected and increasingly managed by public authorities;
- a water company takes the water produced by the “forest waterworks” without giving any exoneration to the owner and
- all of us inhale the oxygen produced by this forest for free.

All these people have long term and rather secure rights to the forest; they can be called to a certain extent owners in the resource system. Thus, property of a forest is not an absolute dominion of a single person over a piece of land but rather a bundle of property rights. SCHLAGER and OSTROM (1992) have described 5 levels of property rights for analyzing natural resource systems (access, withdrawal, management, exclusion, alienation). All these different rights can be attributed to different persons and in fact they often are. Nevertheless, the owners of the ground (that means in German law also the growing timber stock) have a special importance. To put it simple: with the basic decisions to cut / not to cut a tree and to regenerate / not to regenerate they control to a large part the development of the ecosystem and the provision of most goods and services. To them I shall refer as owners in the following.

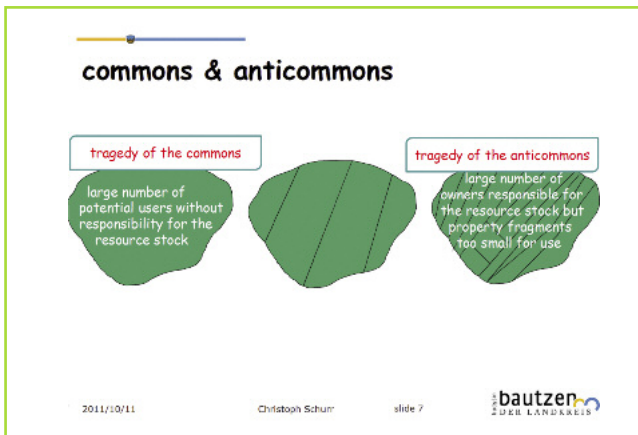
The composition of the bundle of rights and their allocation also has a temporal aspect. Rights are far from stable over time. In the 19th century, nobody thought of carbon sequestration as a valuable aspect of forests, as today

²⁴ Goods and services can be classified in two axes:

* are they subtractable or not (that is, if they are consumed by use, less is left for the next user),

* can potential users be excluded or not.

Combining these characteristics, there are 4 categories: private goods, club or toll goods, common pool goods and public goods.



nobody thinks any more of raking litter. While old uses of forests lose their value, other goods and services are permanently discovered anew. The entitlement to newly discovered uses however is not automatically linked to land ownership today, rather they are attributed by political processes (BERGE 2002, 2003).

If property is such a split up and complicated institution, why do we need it at all? At this point we should have a look at what happens if there are too few or too many property rights:

- First, take a forest without fences, no control of use, everybody uses it in whatever way he / she thinks. There are withdrawal rights for everybody, but management, exclusion or alienation rights are absent or unclear. It is obvious that before long the resource stock will be depleted because there is too little property. This is what Garret Hardin called the tragedy of the commons (HARDIN 1968).
- Take the opposite case: a forest split up into extremely small lots. Every owner is known by name and address, their rights are clear. Still, the management of this resource system grinds to a halt. When the stock isn't managed, other people aren't able to exert their rights as well. If there is too much property we shall often find what Michael Heller called the tragedy of the anticommons (HELLER 1998).

So the institution "property" has borders. Between the two tragic zones there is a zone of functioning property. Only in this zone it is a viable, but then effective economic institution.

The ways out of the tragedies are clear. For sustainable forest management a substantial core of property rights is needed, substantial in terms of rights to the management of the stock as well as to the uses drawn from it:

- In the case of the open commons, an individual or group responsible for management and uses has to be delimited, mechanisms to exclude others and to sanction transgressors have to be installed. One can say: fences have to be put up to sustain resource management.
- In the case of the anticommons bundling of property fragments by an individual or a group is needed to reduce exclusion rights and allow communication and negotiations for organizing resource management. One

can say: Fences have to be torn down or lowered to bring owners back into resource management.

In both cases the result is that individual owners or an owners' group know the others they have to communicate with to organize management in the common pool resource. People from the outside know that and whom they have to ask for using the resource.

Thus, property in a resource system is an (often complex) institutional arrangement. It can be defined as a multilateral contract between persons we call owners exerting certain long lasting rights and having obligations to sustain the capital stock and non-owners respecting these rights and their attribution, permanently developing further, enduring but never constant. It is often highly sophisticated and not easily understood (comp. OSTROM 2008). Together with other institutions like the regulatory framework and best practice rules property governs the conservation and utilization of a resource system. Rightfully, I should add that in recent decades the importance of the regulatory framework has increased, while the importance of property has decreased.

2.3 Owners

We must give yet another glimpse to the types of owners, particularly ground owners: They can be e.g.

- individual owners,
- groups (common or shared property),
- the public in form of the government or state,
- every(wo)man (or nobody).

These categories differ in the extent to which they can ignore or have to respect third party interests in deciding over resource use and the number of persons involved in decision making for resource management.

Ownership makes the case of property as an institution even more interesting taking into account that property and real estate property in particular are not only an economic but also an important social institution, giving personal owners e.g.

- a certain space of freedom,
- a certain degree of economic independence and long term security by providing individual goods and services (subsistence),
- a chance to learn sustainability practically,
- better access to societal participation, and
- an anchoring place in an ever more moving world ("home").

If many citizens are owners, property has social outcomes desired by modern democratic societies. The problem is purely mathematical: wide spread ownership works only with lesser property sizes.

Common pool resources can be held in all these forms of property. The next section will look closer at common property.

3 Robust common property regimes in common pool resources

Common property is the property shared by a limited number of persons owning a core bundle of rights (and obligations) in a resource system as a group, notably withdrawal, management, exclusion rights, not necessarily alienation rights. They too are not exclusive owners in the resource system. Common property was wide spread in Germany until the 19th century. Since then it has been mostly dissolved and either individual private or government ownership has prevailed.

Ostrom and her school have taught us that common property can be a robust and viable institutional arrangement to successfully govern even such highly complex resource systems as forests at a local level. But sometimes it can also fail. Therefore, Ostrom has named eight design principles, later she called them conditions for best practice (OSTROM 2010), which are frequently found in robust, long lasting, well organized common pool resource systems with a local governance or common property background. They describe practices within the group of the commoners as well as relationships to authorities and groups outside. Although they have been criticized recently for not showing all relevant factors, they are a good basis to analyze natural resource systems. The 8 design principles are (OSTROM 2010):

- boundaries are clearly defined for users and the resource;
- rules governing the use of collective goods are well matched to local needs and conditions;
- viable collective-choice arrangements: most individuals affected by these rules can participate in modifying them;
- uses and the resource are monitored;
- sanctions are graduated;
- low cost conflict-resolution mechanisms are accessible;
- rights to organize are recognized of by external authorities;
- nested enterprises: In common property regimes that are parts of larger systems, appropriation, provision, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers of nested enterprises.

Ostrom also named 8 corresponding risks endangering robust systems:

- blue print thinking;
- overreliance on simple voting rules;
- rapid exogenous changes;
- transmission failures;
- turning to external sources of help too frequently;
- aid that ignores indigenous knowledge and institutions;
- corruption and other forms of opportunistic behavior;
- lack of large scale supportive institutions.

4 Chances, risks & challenges

We shall now take a closer look at some of the design principles and risks for robust common property arrangements. Challenges are e.g. the mobility of people and demographic change, the changing structure of forest goods and services and the coordination of private and public property rights as well as the cooperation with other forest owners.

4.1 Design principles

Very important but too little acknowledged is the principle of nesting. It allows to bridge the gap between local groups which have the advantage of being straightforward and are better able to build and maintain trust and larger organizational levels which are often necessary to increase the benefit from resource utilization. Two examples:

- In the Witów forest commons (located in Southern Poland, with 3,000 ha of forest, extending over several village districts) there is beside the executive board a person of trust responsible for the local commoners in each village.
- Common forests are often too small to become a successful timber market actor. So it makes sense that they join a larger forest management association (FMA) which is a less intense form of cooperation bundling larger amounts of timber for sale. This also allows for rather small commonly owned forests, which, when thinking of new commons, may be easier to initiate than larger ones.


design principles (best practices)



nesting:
multi-level task specialization



collective choice arrangements:
every commoner counts

2011/10/11 Christoph Schurr slide 9 

Ostrom's third principle refers to the collective choice arrangements in the commons organization. In former times, much of the rule setting had to be done by the commoners' organization themselves. Today this has been replaced by a multitude of legal rules. Often, only the decisions about everyday management are left to the commoners. All the more important is, that the majority of people affected by the working rules for a forest in shared ownership must be able to influence setting and

changing them. Therefore, as many commoners as possible should be taken along for basic decisions. For instance:

- Maximum participation should be sought for long-term management decisions (e.g. 10-year management plans).
- Executive councils should be rather large than too small and communication between executives and commoners should be intense.

All commoners must have the good feeling that their voice counts and that executives not only rely on majority decisions.

4.2 Risks

A grave risk for common property forests is turning to external sources of help too frequently. For instance it is very critical, when the commoners transfer over have to transfer too many of their tasks to a public administration. This reduces responsibility of the commoners, and recognition from the public and politics. Therefore, it is very important that the freedom of choice who manages the forests should not be restricted by rules one sidedly favoring services by a public forest administration. Rapid exogenous changes are another risk. This can be

risks

*turning to external help too frequently:
loss of self-determination*

*rapid exogenous changes:
adapting institutions*

2011/10/11 Christoph Schurr slide 10 **bautzen** DER LANDKREIS

seen in forestry at large scale, for instance climate change or biodiversity policy. In these cases, you find newly developed property rights like in biodiversity or carbon sequestering attributed to third parties. The core of the bundle of rights may be lost in this process.

4.3 More challenges

One risk Ostrom calls “ignoring indigenous knowledge”. Maybe we should rather say “ignoring or losing local knowledge”. Many forests in shared ownership once were installed by closing the number of residents entitled to forest utilization to ward off newcomers. Today, mobility, demographic change and inheritance rules often make

challenges

*exit from fragile commons:
attaining a substantial core bundle of rights*

*securing local knowledge:
„strong roots“*

*merging:
open doors or lock them?*

2011/10/11 Christoph Schurr slide 11 **bautzen** DER LANDKREIS

commoners drift away from the locality. Thus, local anchorage and knowledge are lost, which are social benefits and important for trust. It seems important to institute mechanisms that keep a majority of shares in a rather close perimeter of the commons' location. Answers to that risk could be e.g.

- preemption rights for the commoners' organization,
- an active policy by the commoners to buy shares that have left this perimeter and transfer them again to new residents,
- getting the community (municipality) involved as a commoner.

After 1990, a large number of FMAs formed in East Germany, which retained land ownership as individual property while managing the forest stands in common (“type C association”). This sort of commons has a major problem: exit of land. Reasons for exit can be multiple, for instance death, sale of the lot, drawback of state owned parcels, members moving away, or human failures. If the association cannot gain long term control of the land, membership will steadily erode. There are no clear, long-term resource boundaries, there are no bundling aspects besides timber management, not even hunting (in fact, in this regard the members are according the German law at the same time members of different commons), and there are transmission failures. So there's a violation of several design principles. In order to adapt, these commons have to strengthen their core, i.e. they have to gain more control of the land as a group. However once the erosion has started, it may be difficult to stop and turn around.

Another important question is whether forest commons should keep the number of commoners closed or if they can accept new members e.g. persons who can't manage their forests any more by themselves but want to remain forest owners. This is a legal question as well as a question of tradition and selfconception. Personally, I think this is a chance due to always more people distant from forestry in their daily livelihood but still wanting to remain engaged in forestry.

5 Old & new commons

Existing forest commons show a wide variety of legal, managerial and operational arrangements, e.g.

- in some, the shares are still tied to a farming household, in others they are tied to a family; in still other cases they are fixed to neither and are freely tradable;
- in some forest commons the management and exclusion rights are commonly owned, while the land belongs to the municipality, in others land ownership belongs also to the commoners.

I shall not go into detail with old commons, as other presentations dealt with that. Just one aspect: old commons have the great advantage that they exist. The institutions are there and do not have to be created.²⁵

Management of small forest holdings has often come to a standstill. This impedes not only the utilization of timber but other forest uses of other tenants of rights as well. Therefore bundling of minute (spatial and / or legal) property fragments is needed. The prevailing notion of bundling is of an individual person or public entity buying small forest lots and enlarging their forest estate. Socially favorable wide spread ownership could be preserved as well if small property rights are used in common (cooperation) or merged into shared property.

In a global perspective, high attention has recently been given to shared-property of forests because either individual or government ownership of forests hasn't led to the desired economic, ecologic or social outcomes in sustainable forest management. Therefore particularly in developing countries property rights have been transferred to local or regional groups. According to FAO, 11 % of forests worldwide are held in common or community ownership (FAO 2011). Some reasons for this new appeal of common property:

- common property can avoid the twin tragedies of the commons and the anticommons while at the same time allowing many people to participate in natural resource management;
- common property normally gives locals high responsibility and thus coincides with the principle of subsidiarity;
- common property widens the scope of an individual owner from practical management decisions to finding rules and practices for cooperation as a member of a group of owners. Thus it supports social learning and building social capital, which is further enhanced by the fact that within the group normally generations do overlap;
- finally, it gives even people who make their daily livelihood far away from forest management a chance to participate in owning and managing forests. That is an argument particularly for industrialized countries.

But can we initiate new forest commons even in Central Europe from minute forest fragments? What counts if not the estimation of foresters fascinated by common property but only the individual valuation of smallholders. They would have to give up real, but often not manageable property in exchange for just a voice in a larger group owning an utilizable resource.

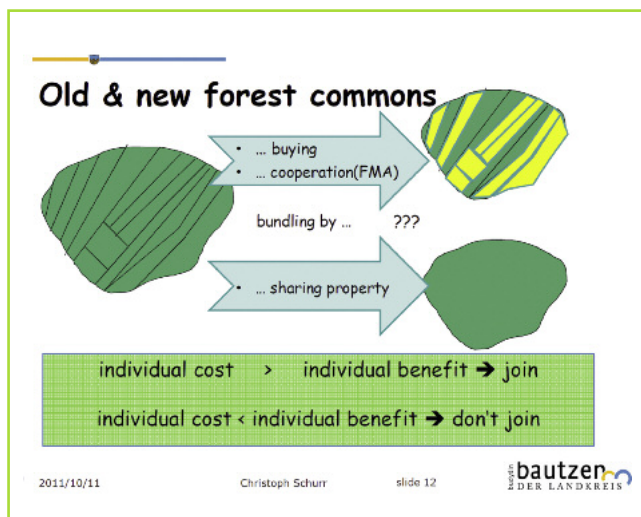
The basic formula for entering into a cooperation with others is:

- Individual Benefit > individual cost → join
- Individual Benefit < individual cost → don't join.

Expenses are particularly high at the beginning, e.g. founding procedures or transfer in the land register, but also think of social cost-exchanging a small but sole rights just for one voice amongst many. Benefits come later. They too are not only economic, but also social. „[T]he social gains from cooperation are not just fringe benefits, but instead a major part of what people seek.“ (DAGAN and HELLER 2000).

Perhaps the most essential point in the starting phase of such a process is trust building: trust into other group members, trust into rules and trust into managers. Trust building begins with trustworthy initiators. Even the comparatively easy formation of a FMA which only sells timber for its members needs a lot of trust building. The more intense and the less reversible cooperation gets, the more trust building is needed. That costs!

Bundling by buying forest land makes use of an established process of property transfer. For establishing new commons proven procedures for merging property rarely exist. Transaction cost therefore is high. Bundling mechanisms need to be effective, have to be practically implemen-



²⁵ Even if, as in the German state of Thuringia, some legal requisites were missing after 40 years of non-existence in socialist GDR, it was comparatively easy to revitalize approx. 400 common forests which had existed there before.

common & community forests

	common forests <i>„shared private property“</i>	community forests <i>„corporate property“</i>
number of owners	closed	open
owner group size	small - medium	medium - (very) large
form of property	shared private	corporate
exclusion of third party interests	yes	no
regulatory framework	private forest (public)	public forest
„voice“ /decision body	direct (members' assembly, executive board)	indirect (municipal council)
distribution of wins and losses	direct	no / indirect (taxation)
resource monitoring	self-organized	self / external
liability of owners	yes - risk of loss of assets & income	no
leadership	bottleneck /shortage	always in place

ted and must meet acceptance by forest owners. Some ideas for that are:

- a special guided and guarded initiation procedure has been provided in Thuringia (also in North Rhine-Westphalia) by the forest commons act of 1999. Consenting owners can apply for merging their small lots in exchange for shares in a forest commons. The forest administration serves as an advisor and warrantor for the process. The transfer of rights in the land register is free of charge. Thus, 7 new common property forests (approx. 530 ha, 276 members) have been incorporated since 2000 (THÜRINGENFORST 2008).
- Land consolidation is an established procedure in Germany. While its main perspective is better parcel structure and infrastructure, it could also serve to incorporate new shared property for owners unable to manage their property by themselves and not willing to disclaim their property.
- There is also some appeal to a step by step approach: forest management associations buy forest land. If this happens to a larger extent, they may have to close admission of new members or change their legal form. This procedure builds on existing institutions and trust in the association.

6 Community and common forests

This leads to some final remarks about the relation between commons and community forests. Centuries ago, these two forms of ownership were almost identical. Today there are various differences and similarities (see table). While due to increased mobility of people, some commons may lose their local anchorage over a series of mobile generations, communities stay. Even in areas where population shrinks, communities can engage themselves in various ways to retain local ownership of forests.

I want to argue that despite all differences, particularly forests owned by rural communities do come close to common property forests in their local grounding, when citizens are actively involved in forest management and the corresponding decisions (e.g. forest days, advisory committees or village council committees spiced up with citizens).

7 Final remarks

- Property is one important element in an often complex institutional arrangement of the governance of natural resource systems;

- (small) property has more than an economic dimension it also has a social dimension;
- sustaining existing forest commons faces various challenges;
- for installing new common property forest owners need trustworthy and efficient advisors and procedures;
- forests commons and community forests are not the same, but they are close – particularly in smaller rural communities;
- development of property in small scale forests – towards better structures, more cooperation and perhaps new shared property – must begin at the local level by working with and for the forest owners;
- and finally: shared / common property in forests deserves more attention – also in Europe.

In her Nobel lecture at Stockholm in 2009, Elinor Ostrom summarized her interest and lifelong work for common pool resources and common property arrangement with the following remarks: „*Designing institutions to force self-interested individuals to achieve better outcomes has been the major goal posited by policy analysts for governments argue instead, a core of public policy should be to facilitate the development of institutions that bring out the best in humans.*”

8 Literature

BERGE, E. (2002): Reflections on Property Rights and Commons in the Economies of Western Europe. The Common Property Resource Digest no. 62: 1-9.
 BERGE, E. (2003): Commons: Old and New – On environmental Goods and Services in the Theory of the Commons. Proceedings from a workshop on “Commons: Old and New”, organized by the Research Programme Landscape, Law & Justice at the Centre for Advanced Study, Oslo, 11-13 March 2003. ISS Rapport no. 70, pp. 1-14.
 DAGAN, H. and M. A. HELLER (2000): The Liberal Commons. Yale Law Journal 110 (2001) no. 4: 551-623.
 FAO (2011): Reforming forest tenure. Issues, principles and process. FAO Forestry Paper no. 165. Rome: FAO.
 HARDIN, G. (1968): The Tragedy of the Commons. Science 162: 1243-1248.

HELLER, M. A. (1998): The Tragedy of the Anticommons: Property in the Transition from Marx to Market. Harvard Law Review 111 no. 3: 622-688.

OSTROM, E. (1990): Governing the Commons – The evolution of institutions for collective action. Cambridge: Cambridge University Press.

OSTROM, E. (2008): Institutions and the Environment. Economic Affairs 28 no. 3: 24-31.

OSTROM, E. (2000): Beyond Markets and States: Polycentric Governance of Complex Economic Systems. American Economic Review 100:641-672. (This article is a revised version of the Nobel Lecture delivered in Stockholm, Sweden, on December 8, 2009.)

SCHLAGER, E. and E. OSTROM (1992): Property-Rights Regimes and Natural Resources: A Conceptual Analysis. Land Economics 68 no. 3: 249-262.

SCHURR, C. (2006): Zwischen Allmende und Anti-Allmende. Eine Untersuchung zur Struktur und Strukturentwicklung des kleinflächigen privaten Waldeigentums unter den Bedingungen der gesellschaftlichen Transformation am Beispiel des Freistaates Sachsen. Inaugural-Dissertation zur Erlangung der Doktorwürde der Fakultät für Forst- und Umweltwissenschaften der Albert-Ludwigs-Universität Freiburg im Breisgau. Freiburg i.Br. 2006. Verfügbar bei <http://www.freidok.uni-freiburg.de/volltexte/2869/>.

SCHURR, C. (2011): Overcoming the anticommons – pathways to resolve the restraints of extremely fragmented forest property. In: IUFRO Working Unit 3.08.00, Fakultät für Forst- und Umweltwissenschaften der Universität Freiburg and Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg (FVA), Freiburg (eds.): 2011 IUFRO Small-Scale Forestry Conference. Synergies and Conflicts in Social, Ecological and Economic Interactions. Freiburg: FVA, pp. 35-39.

THÜRINGENFORST (Hg.) (2008): Forstpolitik. Unveröffentlichtes Manuskript. Erfurt.

A detailed list of literature can be obtained from the author.

Keywords: property rights, forest commons, new common property, community forests, property bundling, adaptive capacity, forest owner cooperation.

Poster Session

Modeling of Complex CPR-systems with Artificial Neural Networks

Ulrich Frey²⁶ and Hannes Rusch²⁷

Motivation

Since the seminal work of Ostrom it has become clear that local communities may be successful in managing common pool resources like forests. However, not all groups fare equally well. Although there has been much research on which factors improve success, their relative importance is still unclear. Suggestions include clear boundaries, strong leadership and many others.

It is problematic that almost no study analyses a comprehensive set of such factors simultaneously, since it is often the non-linear connectedness between important variables that is crucially important. Partly, the lack of studies is due to the complexities involved, since variables from different studies do not overlap. Hence, results are hardly comparable. In addition, there is a lack of large-N-studies.

Methods

We suggest to tackle these problems with a new methodology – artificial neural networks (ANN). They are especially suited for this purpose because they are capable of analysing the complex interplay of factors since they allow non-linear statistic modeling of complex systems (e.g. community forestry). ANN need large datasets to be able to generalise. Therefore, we have been building up and recoding databases with CPR case studies worldwide: forest management (IFRI, Michigan), irrigation (CPR and NIIS, Indiana) and others. Taken together they yield more than 1,000 codeable cases.

Each case study consists of hundreds of documented variables with values relevant for the success or failure. With the help of an indicator system these variables are assigned to each success factor (e. g. leadership). These values serve as input for the ANN.

The output in our model is a variable for the ecological success of each system. Once the ANN has learned how to relate the input to the output on a training set, it can be evaluated by predicting the success of cases whose success (output) is known, but has not been part of the training set. If the validation is successful and the ANN correctly predicts the expected results it can then be used for new data sets with unknown performance.

Results

The first runs of the ANNs are promising. They confirm that ANNs are indeed capable of modeling the complexity of CPR-systems, which rarely has been done up to now. They provide a quantitative and precise model (the error rate is known and relatively small). Moreover, each success factor in each case can be manipulated separately, simulating e.g. changes in CPR-governance, and the estimated result can be observed immediately.

This means that such ANN-generated models might become a fast and inexpensive way to analyse, predict and optimize performance for community owned forest management world-wide facing CPR-challenges. Lastly, existing theoretical frameworks may be improved.

²⁶ Dr. Ulrich Frey, Centre for Philosophy, University of Gießen, Germany, ulrich.frey@uni-giessen.de

²⁷ Hannes Rusch, Centre for Philosophy, University of Gießen, Germany, hannes.rusch@uni-giessen.de

Modeling success of CPR-systems

Dr. Ulrich Frey, Hannes Rusch (ZfP, University of Giessen; contact@crgi.org)

Summary

There are numerous factors that influence whether a given CPR system achieves ecological long-term sustainability. Up to now there is no comprehensive model to explain success within or across cases. Difficulties include the absence of large-N-studies, the incomparability of single case studies and the interdependence of factors. We propose (1) a synthesis of 24 success factors; (2) the use of neural networks and large-N-databases of CPR management case studies to test the applicability of this synthesis. Currently, our best nets predict success with a mean absolute error of 0.14.

This method allows us to obtain an implicit quantitative and rather precise model of the interdependencies in CPR systems. Given such a model, every success factor in each case can be manipulated separately, yielding different predictions for success. This would be a fast and inexpensive way to analyze, predict and optimize performance for communities world-wide facing CPR challenges.

Motivation

Common pool resources are important!

- 1 billion people depend on fish as primary source of protein
- 1.6 billion people depend on forestry; 18% of all forests are commons
- irrigation systems produce 40% of all agricultural commodities; 90% of all farms are small-scale (< 2 ha)

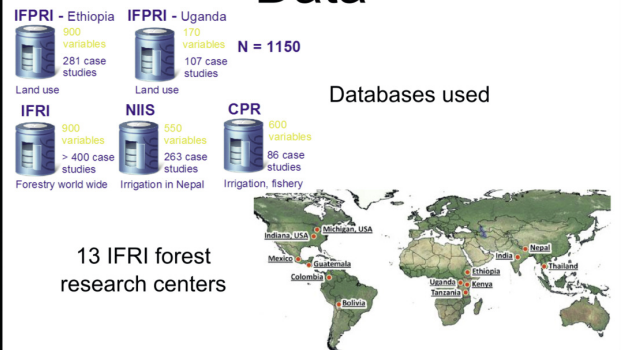
State of the art:

- relevance of success factors is still unclear
- interplay of success factors has hardly been researched => no quantitative model yet

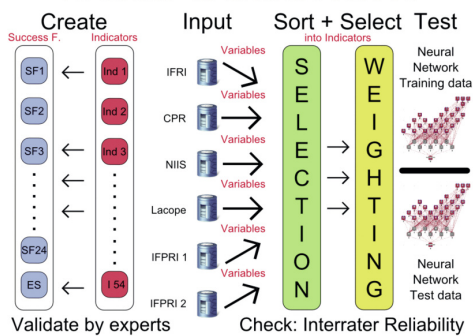
Success factors

Resource	Resource Units	Actors	Rule System	External Effects
Size	Manageability	Number of actors	Group boundaries	Exclusion
Boundaries	Regeneration	Group composition	Participation	Relations
Accessibility		Social Capital	Legal certainty	Capabilities to adapt to change
Condition at the beginning		Dependency on resource	Administration Information	
		Dependency on group	Characteristics of Rules	
			Fairness	
			Control	
			Compliance	
			Conflict Management	

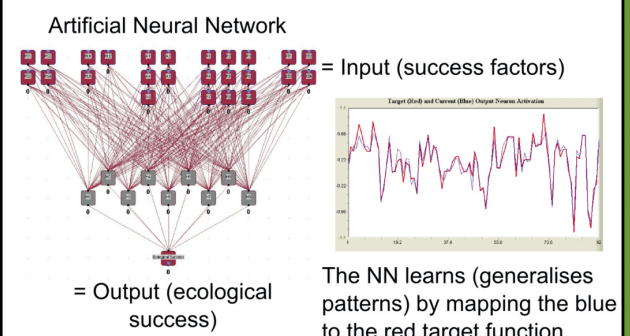
Data



Data treatment



Methods



Results

Characteristics of best net so far (out of > 45 000 tested): hidden neurons = 22; learning algorithm = RPROP, repetitions = 100

Mean absolute error for test cases:

MAE = 0.13 (= 6.5% for the interval [-1, 1], sd = 0.19

Predictions:

- 44% with less than 5% error
- 33% with less than 10% error
- 13% with less than 15% error
- 9% < 20%; 1% > 20%

= 20% better than multivariate linear regression

Outlook

- is the first quantitative model of success factors we are aware of
- allows testing theories and predictions empirically
- allows precise predictions for each unique case
- allows testing of alternative success factor sets
- allows the practical manipulation of each single success factor

Policy advice:

- could be used for fast and simple use in practice
- answers "What if policy X were implemented..." beforehand by predicting the reaction of the SES to this particular policy change

Round Table: October 11th, 13:30 to 16:30, Burbach, Citizen's Hall

Summary of Discussion and Further Steps

Renate Späth²⁸ and Marie-Charlotte Hoffmann²⁹

The participants of the International workshop taking part in the Round Table "Towards a European network on Forest Commons" stressed the importance of building a network on Forest Commons in Europe. They agreed that the workshop has been useful, and a future network would provide a lot of opportunity to bring together representatives from different forest commons – many of whom feel ignored or marginalized in comparison with other forest owners and other forest ownership structures in Europe.

Participants found that Commons are often not considered to be an important element of forest policy, but rather are looked upon as a "footnote". The network should contribute to changing this situation.

Recognising the profound changes in forestry structures and forest holdings currently taking place across Europe, this network should exchange knowledge, experience, ideas and successful models of commonly owned forests.

There is a need to systematically compare existing and new case studies of forest commons, and to structure research on their impacts on sustainable forest management and sustainable social development (productive function, ecological function and social function of forests). To do this, participants agreed on the need for a methodology and standard set of dimensions to serve as a common framework.

One important step is to define terms. Participants found that the same terms were being used in different ways in different countries. They agreed that there will be no attempt to impose a single definition but rather to indicate where a given term has different meaning. For example, there was more than one understanding of "forest commons", "common ownership", "common arrangements", and "common bundles of rights" in the different countries. One proposal was to keep the original terms in their original languages. Clarifying and agreeing definitions will help to describe the framework.

Another important question deals with the relation between researchers and practitioners. Participants recogni-

sed the challenge of, and need for, integrating researchers, administration officials, and members of forest commons. This was expressed as the need to keep as near as possible on the ground not only researchers or administration, but also and maybe most important, the members of the forest commons. One first proposal saw research, and e.g. forest managers as a centre imbedded in the wider and larger community of forest commons owners and other actors, such as woodland associations, local authorities (forest administration) and policy makers.

Methods and ways of participation have to be developed or adapted from other fields which have experience with using participatory processes in society.

Although forest commons can often relate to a long history, they are challenged by globalization processes, by industry and by increasing fragmentation of land. One lesson learnt so far is that national structures often cannot fulfil the needs of people at a local scale. In contrast, forest commons may be a tool to reverse a trend of increasing disconnection between people and natural resources, through ownership. Forest commons might reconnect individuals to natural resources, local responsibility and accountability. They strengthen capacity for self-organisation in communities. In the self-organisation of people in communities it's important to ensure a balancing of representatives of various groups (members of forest commons, local authorities, policy makers, etc.), but it's likewise important their representativeness. In this sense, is important to find out the "force (power)" relationships between actors.

Forestry as a whole is an excellent subject for learning about sustainable governance in a wider context, because forestry is bound to be based on long-term decision making. Forestry provides the opportunity to deal with our main social and natural resource challenges through hands on experience: sustainability, resource efficiency, and climate effects are historically grown subjects of forest management. Demographic change and disconnection/migration on the other hand challenge local communities in general with the problem of balancing ownership and use rights.

²⁸ Renate Späth, Ministry for Climate Protection, Environment, Agriculture, Nature Conservation and Consumer Protection of the State of North Rhine-Westphalia, Düsseldorf, Renate.Spaeth@munlv.nrw.de

²⁹ Dr. Marie-Charlotte Hoffmann, PROJEKTkompetenz.eu – Gesellschaft für Projektentwicklung und management m.b.H., Düsseldorf, m-ch.hoffmann@projektkompetenz.eu

These facts and observations lead to the assumption that the social function of forest management and forest commons is most important. So the main purpose of the network could be to address the question of achieving a socially sustainable forestry. The range of professionals involved in the network should therefore include social anthropology. The network should be open for representatives from other countries with forest commons experience. It should also consider connecting to larger networks such as IUFRO working groups and IASC.

One big motivation of the participants is to promote the idea and practice of forest commons as a future model. New commons should be fostered through information, knowledge exchange and reflection about historic and long-lasting forest commons throughout Europe.

There is a common hope that the network will get more young people involved in this process of reflecting and creating new structures, if the visibility of forest commons has been raised. Forest commons are expected to enhance identification with the forest as well as rural development and a more active citizenship.

Alongside the forest commons owners the network wants to address politicians as well as policy makers. With respect to this aim, participants recognised the outstanding contribution made by the Mayor of Burbach, by attending the whole day of theory, practice in the field and the evening.

The network has to look deeper into funding opportunities for its future work. COST Actions (available to scientific participants only), as well as FP7 forest related calls were mentioned, but these are seen as probably not fitting the purpose of the network. More chances were expected with Interreg IVc and other European Funds money or European Aid financing possibilities as well as European Science Foundation. Network members must clarify further opportunities for national funding for networks.

The participants are committed to meeting in the near future to work further on establishing the European Network on Forest Commons. Some contributions for the next meeting were already

discussed, and several participants volunteered to take action and lead responsibility for the themes identified.

Topics and responsibilities

Contribute to the definitions; terminology, perspective of the different countries:

Tine Premrl (Slovenia) volunteered to work on this issue together with one representative of each country

Framework dimensions for describing cases:

Anna Lawrence (UK) with Ulrich Frey (Germany), Andy Selter (Germany), Tine Premrl (Slovenia) and Carsten Schusser (Germany), Paola Gatto (Italy)

Participation and gender aspects; including good governance in FC:

Mahesh Poudyal and Gun Lidestav (Sweden) with Alessandro Paletto (Italy), Paola Gatto (Italy)

Establishing New forest commons including urban processes:

Renate Spaeth (Germany) with Andy Selter (Germany) and Anna Lawrence (UK)

Association of forest commons:

Tine Premrl (Slovenia) with Anna Lawrence (UK)

Actors: policy makers and others:

Carsten Schusser (Germany) with Tine Premrl (Slovenia)

Collecting other relevant topics:

Manuel Oelke (Germany)

Responsible person for the next meeting:

Hopefully Paola Gatto (Italy)

Overall coordination until the next meeting:

Renate Spaeth (Germany)

All participants who had to leave the Round Table earlier or could not participate at all are kindly asked to contribute to the above mentioned working teams or to send new topics to Manuel Oehlke.

March 2012

Field Guide FC Hauberg NiederdresseIndorf

The forest cooperative "Hauberg NiederdresseIndorf" is an institution to manage the common property of its members (conjoint collective). It manages an area of 154 ha. Within this area are 52 ha of coppice forest, where the owners make firewood in an rotation period of 30 years. That is a utilization of 1.7 ha each year. The rest of the area is high forest and other forest areas.

The forest cooperative "Hauberg NiederdresseIndorf" has 320 members, who own altogether 10,895 shares, so one ideational share has a calculated area of about 141 m². The owners possess from 1 to 192 shares that conforms to calculated areas from 141 m² to 2.7 ha.

The male owners predominate traditionally, but after all, 30.7 % of the owners are women and in 20.4 % women own the shares together with their husbands, others inside of community ownerships (for example communities of heirs).



The members of the forest cooperative elect a committee, which includes a forest manager, two deputies and two other committee members. In addition there is a treasurer for the cash management. The management is based on a yearly management plan. At least once a year the assembly of members check the annual financial statement and adopt the management plan. The shares and the members are proved by the entry in the cadastral register and an inventory book of the forest cooperative. The cadastral register informs the forest cooperative of every change of ownership, so they can change their inventory book, too. This book includes all data of the members like address, number of the land register, number of shares, banking arrangements and the arrangement of all the estates of the forest cooperative. In NiederdresseIndorf this book is digitally recorded, which helps to collect all data, book cash transactions and arrange annual financial statements.

The forest areas of the forest cooperative "Hauberg NiederdresseIndorf" is PEFC-certified. An audit took place not long ago.

Excursion point 1 Firewood in compartment 114 B

Total area: 8.73 ha;
forestry utilization in 2010: 2.2 ha.

Site description

Growth zone: Sauerland, part: Siegerland;
elevation: 490 m above sea level (lower mountain ranges);
terrain form: slope (in the shadow), north to north-east,
poorly to moderately inclined;
water balance: fresh to swelly;
nutrient balance: moderate to good;
soil: sandy to stony-sandy loam;
speciality of the site: wet parts.

Stand description

1. red alder-birch-mountain maple-trembling poplar mixed stand, crowded, 100 % broad-leaved trees;
 - red alder, birch and mountain maple: 31 years old, pole wood to small-sized wood from coppice shoot;
 - trembling poplar: 31 years old, from natural seeding;
 - other tree species: willow.

Nature protection area!

2. birch-trembling poplar-mountain maple mixed stand,
100 % broad-leaved trees, 1 year old;
- birch and mountain maple from coppice shoot;
- some trembling poplars from natural seeding.

Nature protection area!

Description

The coppice forest is now used to provide a part of the share owners with firewood. They have to pay for the wood, the price is fixed every year at the assembly of the cooperative.

The members of the forest cooperative who make firewood are insured because the cooperative is member of the agricultural professional association.

Every year one section of the coppice forest is used. Some selected seed trees keep standing. The trees are regenerated by coppice shooting.

Problems:

- young users of firewood, who don't have enough experience
- browsing by game
- decreasing facility of coppice shooting
- driving through the stand to remove the wood.

Possible to discuss:

- sustainability of the utilization of firewood
- prices for firewood
- accident prevention
- conversion of coppice forest
- tasks of the committee at the utilization of firewood.

Excursion point 2

Hiking paths and nature protection

Nature protection

All forest areas of the forest cooperative "Hauberg Niederdresselndorf" are protected under FFH and bird protection areas conformed to the EU guidelines. Some stands (where we have been just before) are nature protection areas fixed in the landscape plan of Burbach.

Hiking paths

In the area of the forest cooperative "Hauberg Niederdresselndorf" there are hiking paths of different importance. The most important one is the long-distance hiking path "Rothaarsteig" and its entrance from the village Niederdresselndorf. There are also other hiking paths, partly with special topics.

possible to discuss:

- accident providing in regard of nature protection and hiking paths
- road construction and maintenance
- claim to utilization and omission
- regulation of the property from outside.

Excursion point 3

Leasing areas to the exploitation of mineral resources

A small part of the forest cooperative area is used for the exploitation of Kaolin since about 80 years. Until 1976, there was underground mining, and after that open-cast. The mining is based on mining plans. The forest cooperative has leasing and utilization contracts with the mine operators.

Possible to discuss:

- source of income for forest cooperatives
- reserves for future tasks
- recultivation
- public relations.

Appendix to the Field Guide Forest Cooperate Hauberg Niederdresselndorf

The forest cooperative (FC) "Hauberg Niederdresselndorf" was only founded in 1818 as a Hauberg cooperative by contractual re-allocation of the area of the municipality of Niederdresselndorf. Founders were the holders of rights of use on these areas and private forest owners. In this contract it was fixed that the house owners, the teacher and the village shepherd have the right to use the Hauberg. At this time, the whole forest area was cultivated as a Hauberg. The house owners who built new houses in Niederdresselndorf could acquire rights of utilisation of the Hauberg. In this way they could "buy into" the use. This regulation was valid until 1965.

After various futile attempts a clearing up of the ownership structure with the now responsible municipality of Burbach: use rights, questions of ownership of property became cleared, judged and redistributed. This redistribution led to the current ownership situation.

The forest area was managed on the basis of the existing Prussian Hauberg regulations from 1834 and 1879. On 8th April 1975 the still valid Act on Community Forest in the state of North Rhine-Westphalia was enacted. The name of the FC was derived from this act. This law forms the basis for the management of the property of the shareholder community. The specific situation pertaining in the FC Hauberg Niederdresselndorf is regulated in the statute based on the Community Forest Act, decided by collective assembly and sanctioned by the supervisory authority. Furthermore the FC has passed a special usage regulation for the management of the coppice area. Further management specifications arise from the general forest and nature conservation legislation.

All revenues of the FC serve for the cover of all expenditure, unless revenues are tied to specific purposes. As far as a surplus is gained, the collective assembly has to decide on a possible distribution of profits. The tax treatments of the distributed partial amounts are incumbent on the shareholders.

Anlage zum Exkursionsführer WG Hauberg Niederdresselndorf

Die Waldgenossenschaft Hauberg Niederdresselndorf wurde erst 1818 als Hauberggenossenschaft vertraglich durch Zusammenlegung einiger Flächen der Ortsgemeinschaft Niederdresselndorf von den Nutzungsberechtigten an diesen Waldflächen und privaten Waldbesitzern gegründet. In diesem Vertrag wurde festgelegt, dass die Hausbesitzer sowie der Schullehrer und der Dorfhirte Nutzungsrechte an dem Hauberg besaßen. Zu diesem Zeitpunkt war die gesamte Waldfläche als „Hauberg“ bewirtschaftet. Hausbesitzer, die neue Häuser in Niederdresselndorf errichteten, konnten nach dem Hausbau Nutzungsrechte an dem Hauberg erwerben und sich dadurch in die Nutzung „einkaufen“. Diese Regelung bestand noch bis 1965.

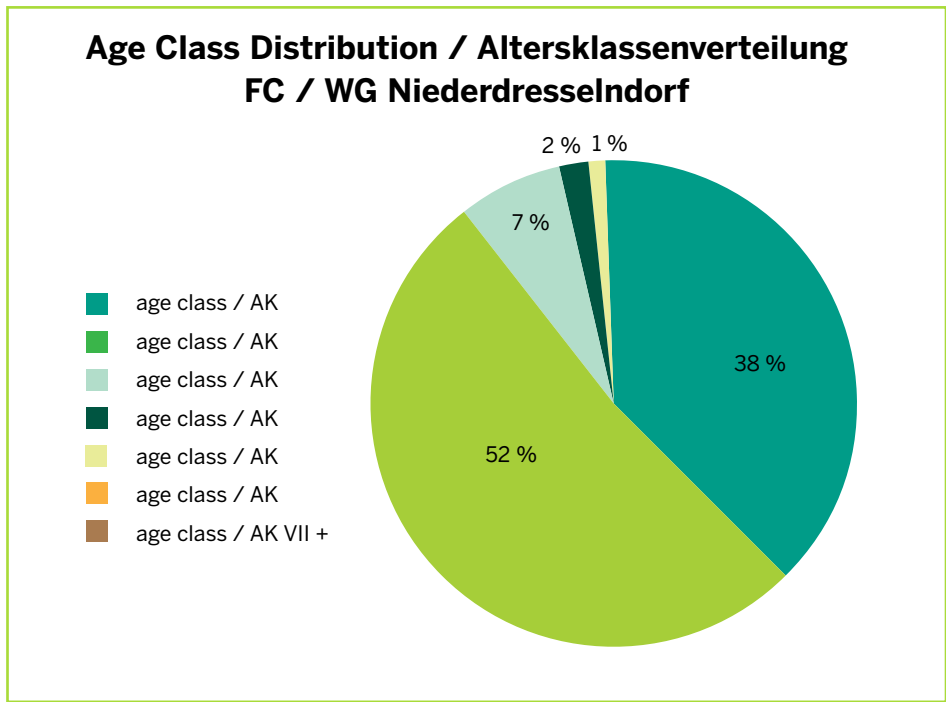
Nach vielen vergeblichen Versuchen wurde erst ab ca. 1985 eine Bereinigung der Eigentumsverhältnisse mit der nun zuständigen Gemeinde Burbach abschließend betrieben. So wurden die Nutzungsberechtigungen und Eigentumsverhältnisse geklärt und bewertet sowie neu verteilt. Durch diese Neuverteilung entstand die jetzige Eigentumsituation.

Die Waldfläche wurde auf der Grundlage der bestehenden preußischen Haubergsordnungen von 1834 und 1879 bewirt-

schaftet. Am 8.4.1975 wurde das heute noch gültige Gemeinschaftswaldgesetz NRW erlassen, aus dem auch der gültige Name hergeleitet und in die Satzung aufgenommen wurde. Dieses Gesetz bildet die Grundlage für die Bewirtschaftung des Eigentums der Gesamthandsgemeinschaft durch die Waldgenossenschaft.

Die besonderen Verhältnisse der Waldgenossenschaft Hauberg Niederdresselndorf werden in der auf dem Gemeinschaftswaldgesetz aufbauenden und von der Genossenschaftsversammlung beschlossenen sowie von der Aufsichtsbehörde genehmigten Satzung geregelt. Darüber hinaus hat die Waldgenossenschaft eine besondere Nutzungsordnung für die Bewirtschaftung der Niederwaldflächen beschlossen. Weitere Bewirtschaftungsvorgaben ergeben sich aus der allgemeinen Forst- und Naturschutzgesetzgebung.

Alle Einnahmen der Waldgenossenschaft dienen zur Deckung aller Ausgaben, es sei denn, die Einnahmen sind zweckgebunden. Soweit ein Überschuss erwirtschaftet wird, hat die Genossenschaftsversammlung über eine mögliche Gewinnausschüttung zu entscheiden. Die steuerlichen Belange der ausgeschütteten Teilbeträge obliegen dem jeweiligen Anteilseigner.

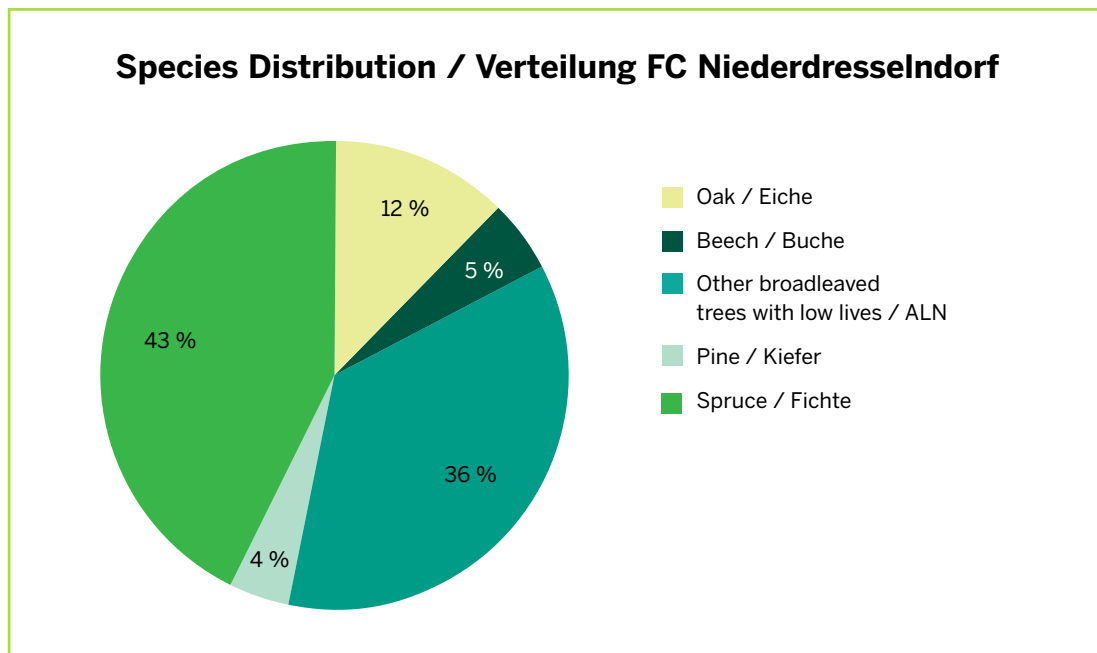


Forest Owners / Waldbesitzer in Burbach

FC = Forest cooperative / Waldgenossenschaft (WG)

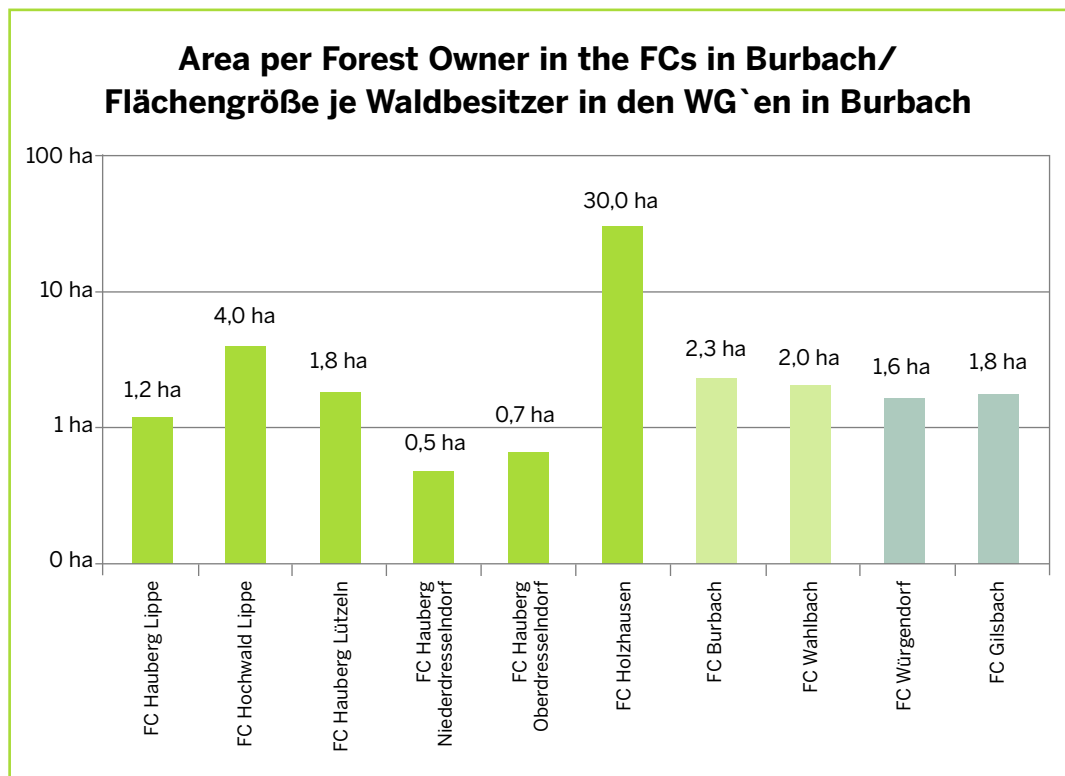
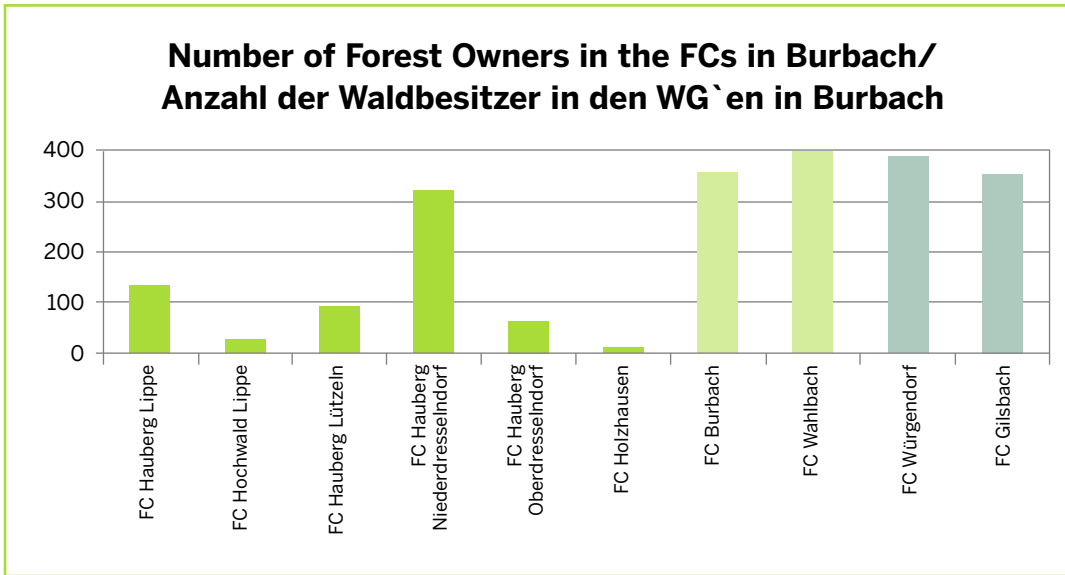
FC Hauberg Lippe	151.40 ha	
FC Hochwald Lippe	95.90 ha	
FC Hauberg Lützelin	162.82 ha	
FC Hauberg Niederdresselndorf	153.34 ha	
FC Hauberg Oberdresselndorf	39.50 ha	Forestry collective / FBG Hickengrund
FC Holzhausen	90.10 ha	
Municipality / Gemeinde Burbach	642.88 ha	
Protestant church / Ev. Kirche Niederdresselndorf	6.50 ha	
Small scale forest in forestry collective / Kleinprivatwald in FBG	32.68 ha	
FC Burbach	820.30 ha	
FC Wahlbach	792.30 ha	Forestry collective / FBG Obergrund
Forest estate / Waldgut Mischebach	58.99 ha	
Forest estate / Waldgut Nenkersberg	108.67 ha	
State forest / Staatswald	519.00 ha	
FC Würgendorf	634.99 ha	
FC Gilsbach	617.52 ha	
Forest estate / Waldgut Baudenberg	30.20 ha	
Dynamit Nobel	118.80 ha	
Private forest / Privatwald	98.60 ha	
Total forest area / Gesamtwaldfläche Burbach	5174.49 ha	

Proportional area of the FCs in the total forest area / Anteil der WG'en am Gesamtwald 69 %
 Percental forest cover / Prozentualer Waldanteil in Burbach 65 %



Number of Women Members in Forest Cooperatives in NRW – Examples / Anzahl weiblicher Mitglieder in Waldgenossenschaften NRW an Beispielen						
1	2	3	4	5	6	7
Forest cooperative / Waldgenossenschaft	Number of forest owners / Anzahl Waldbesitzer	Number of women / Anzahl Frauen	Percentage column 3 of column 2 / proz. Anteil Spalte 3 von Spalte 2	Number of women in wedlocks / Anzahl Frauen in Ehegemeinschaften	Percentage column 5 of column 2 / proz. Anteil Spalte 5 von Spalte 2	Number of women in owner's associations / Anzahl Frauen in Eigentümergemeinschaften
N	319	98	30.72 %	65	20.38 %	4*
W	56	21	37.50 %	4	7.14 %	11
M	24	4	16.67 %	1	4.17 %	0
L	27	6	22.22 %	3	11.11 %	2
H	21	7	33.33 %	2	9.52 %	2
Mü	433	126	29.10 %	54	12.47 %	32
HuH	230	51	22.17 %	13	5.65 %	20
T	165	39	23.64 %	12	7.27 %	17
Wü	390	123	31.54 %	46	11.79 %	31
N	190	52	27.37 %	15	7.89 %	1
K	131	39	29.77 %	3	2.29 %	17
NKL	37	6	16.22 %	0	0.00 %	0
	1,704	474	27.82 %	153	8.98 %	133
Average	142	40		13		11

*without community of heirs / ohne Erbengemeinschaft



Surface Area per Share in the FC's in Burbach / Flächengröße je Anteil in den WG`en in Burbach

FC Hauberg Lippe	1,2 ha
FC Hochwald Lippe	4,0 ha
FC Hauberg Lützel	1,8 ha
FC Hauberg Niederdresselndorf	0,5 ha
FC Hauberg Oberdresselndorf	0,7 ha
FC Holzhausen	30,0 ha
FC Burbach	2,3 ha
FC Wahlbach	2,0 ha
FC Würgendorf	1,6 ha
FC Gilsbach	1,8 ha

Schriftenreihe der Landesforstverwaltung NRW

State Forestry Administration series North Rhine-Westphalia

Heft 1	Bilder aus dem Hauberg, 1995, 3. unveränd. Aufl. 2003	Heft 20	Der Gemeinschaftswald in Nordrhein-Westfalen, 2010
Heft 2	Beispielhaftes Bauen mit Holz, 1996	Heft 21	Empfehlungen für eine naturnahe Bewirtschaftung von Fichtenbeständen in Nordrhein-Westfalen, 2012
Heft 3	Bäume als Zeitzeugen. Ausgewählte Beispiele im Siegerland, 1996	Heft 22	Forest Commons – Role Model for Sustainable Local Governance and Forest Management
Heft 4	Landeswaldbericht, 1996/97	Sonderheft	Wald, Krieg und Frieden. Westfälische Wälder im Zeitalter des Dreißigjährigen Krieges und des Westfälischen Friedens, 1998
Heft 5	Testlauf zur Landeswaldinventur, 1997	Sonderheft	Baum, Wald, Landschaft, Mensch, Kulturlandschaft, 1999
Heft 6	Forstwirtschaft in NRW zwischen Nachkriegswirtschaft und Neuorganisation (1945-1972), 1998	Sonderheft	Schuljahre. Erinnerungen an ein Leben für die Waldarbeitsschule, 1999
Heft 7	Bäume als Zeitzeugen. Ausgewählte Beispiele aus dem Forstamt Steinfurt, 1998	Sonderheft	Wald und Klima. Symposium Wald und Forstgeschichte, 2001
Heft 8	Zur Geschichte des Flammersheimer Waldes, 1999	Sonderheft	Die Eichen-Trupppflanzung, 2003
Heft 9	Untersuchungen zum Eichensterben in Nordrhein-Westfalen, Teil 1, 1999	Sonderheft	Liebesbäume im Ruhrgebiet, 2003
Heft 10	150 Jahre forstliche Lehre in Bonn, 1999	Sonderheft	Navigation im Wald, 2003
Heft 11	Das Burgholz. Vom Versuchsrevier zum Arboretum, 2000	Sonderheft	Kennzeichen und Wert historisch alter Wälder, 2004
Heft 12	Wie naturnah kann mitteleuropäische Forstwirtschaft sein? 2000	Im Internet zu finden unter:	www.wald-und-holz.nrw.de
Heft 13	Untersuchungen zum Eichensterben in Nordrhein-Westfalen, Teil 2, 2001		
Heft 14	30 Jahre forstlicher Betriebsvergleich Westfalen-Lippe, 2001		
Heft 15	Wald und Jagd im Hochsauerland, 2003		
Heft 16	200 Jahre Staatliches Forstamt Arnsberg, 2003		
Heft 17	Clusterstudie Forst & Holz NRW, 2003		
Heft 18	Biologische Vielfalt in den Wäldern Nordrhein-Westfalens, 2008		
Heft 19	Burgholz - Geschichte und Perspektiven eines Versuchsreviers im Zeichen des Klimawandels, 2009		

Imprint

Publisher

Wald und Holz NRW
Albrecht-Thaer-Straße 34
48147 Münster

Text/editing/adaptation

Wald und Holz NRW
Siegen-Wittgenstein regional forestry commission
Dr. Bernward Selter, Münster

Design

AMG, Mülheim an der Ruhr

Picture credits

Helmut Ahlborn (p. 78)
Andrea De Lotto (p. 56)
Wald und Holz NRW / Forestry and Timber
North Rhine-Westphalia (p. 11)
Landesvermessungsamt Sachsen (p. 66)
Landkreis Bautzen (p. 70)
Ministerium für Klimaschutz, Umwelt, Landwirtschaft, Naturschutz
und Verbraucherschutz NRW / Ministry for Climate Protection,
Environment, Agriculture, Nature Conservation and Consumer
Protection of the State of North Rhine-Westphalia (p. 7)
Iztok Mlekuž (p. 32)
Štefanija Šebalj Mikše (p. 31)
Christoph Schurr (pp. 67, 70)
A. Sulc, Creative Commons Liz. 3.0 (p. 69)
Johannes Werthenbach, Gemeinde Burbach (title, back cover)

Status

December 2012

ISBN

978-3-942797-02-3

Wald und Holz NRW
Albrecht-Thaer-Straße 34
48147 Münster
Tel. 02 51-9 17 97-0
Fax. 02 51-9 17 97-100
poststelle@wald-und-holz.nrw.de
www.wald-und-holz.nrw.de

