



## *Short Term Scientific Mission report*

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*Title:*

### *Analyzing success factors of private forest owners' associations in Catalonia (NE Spain)*



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## 1. Aim and scope of the report

This report aims at describing the Short Term Scientific Mission (hereafter STSM) carried out by Francesca Ferranti at the [Forest Sciences Center of Catalonia](#) (hereafter CTFC), Barcelona office (see Figures 1, 2 and 3). Francesca is a researcher and editor in the fields of forest and nature conservation policy and management. She is the founder of [Nature&Society Consultancy in Research and Publishing](#) and she is a PhD candidate at the [Open University of the Netherlands](#). The Forest Sciences Center of Catalonia is a research institute dealing with forest science, training and transfer of knowledge and technology. Its goal is contributing to the modernization and competitiveness of the forest sector, to rural development and to the sustainable management of natural habitats.



Figure 1: Forest Sciences Center of Catalonia, Barcelona office

The STSM here described took place between 22 and 29 November 2015 and it was funded by a grant awarded to Francesca Ferranti by [COST Action FP1201: Forest Land Ownership Changes in Europe: Significance for Management And Policy \(FACESMAP\)](#). The Action aims at 1) analyzing attitudes and constraints of different forest owner types in Europe and the ongoing changes, 2) exploring innovative management approaches for new forest owner types, 3) studying effective policy instruments with a comparative analysis approach and 4) drawing conclusions and recommendations for forest-related policies, forest management practice, further education and future research. The STSM described in this report consisted in deepening and updating the research on forest ownership in Catalonia carried out in the past by the performer of the Mission. Catalonia is a region located in the North East part of Spanish peninsula and it is covered by 60% of forests. This figure speaks for the local importance of forests and of their owners, as well as it justifies the choice of Catalonia as a suitable area where to set a case study for the analysis of forest ownership characteristics and related processes.

The scope of the STSM regarded comparing the data on forest ownership- and in particular on forest owners' associations (hereafter FOAs)- that were collected by the performer of the Mission in past research activities with information available to local researchers on the same topics. Moreover, the STSM encompassed collecting new data on the mentioned topics through interviews and literature review. The data collection was aimed at retrieving information that could be then organized in a peer-review publication, to be drafted after the end of the STSM through a voluntary collaboration between the performer of the STSM and local researchers. After outlining the objectives of the STSM, this report describes the research activities taken before the start of and during the STSM, by explaining methods and results.



Figure 2: The Barcelona office of the Forest Sciences Center of Catalonia was located in the premises of the European Forest Institute, Mediterranean Office (EFIMED)

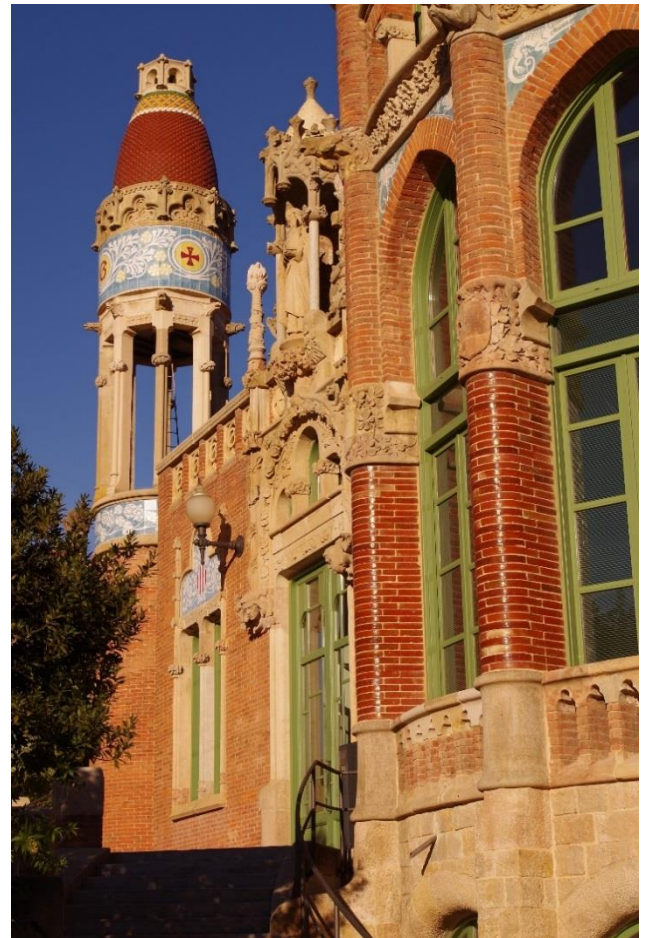


Figure 3: The Barcelona office of the Forest Sciences Center of Catalonia was located in the Sant Leopold Pavilion at the Sant Pau Art Nouveau Site

## 2. Purpose of the STSM: overview on objectives and methods adopted

Catalonia is a region located in the North East part of Spanish peninsula. It is covered by 60% of forests. About 80% of these forests are owned by privates (Villanueva, 2005). Due to the fragmented ownership characterizing Catalan forests (Vayreda, 2004), private forest owners in the region are about 50.000 (Navascues and Llobet, 2007) while forest parcels are about 200.000- half of them with a size smaller than 1 ha (Fletas et al 2012). Private owners are considered the ultimate responsible actors for the sustainable management of Catalan forests and, supported by public subsidies and incentives provided mainly by the regional administration, are expected to perform a rational exploitation of forests which ensure the maintenance of the forest environment (Prokofieva and Gorriz, 2013). Since the 1990s, private forest owners became objects of interest to the public administration also in the context of forest planning, as the efforts of the regional government in this context expanded from public to private forests. In this period, the administration started to promote and finance planning of private forests (Navascues and Llobet, 2007) also to amend to the low management rates characterizing Catalan forests (Plana, 2010). To respond to the difficulties encountered in the newly introduced planning practice (e.g. achieving planning objectives in face of low economic resources to invest)- as well as to respond to the catastrophic fire events affecting



Catalan forests in the 1980s and 1990s (Navascues and Llobet, 2007)- private owners started to associate in various types of FOAs. For example, Forest Defence Groups developed as social networks whose main objective was first responding to and preventing forest fires, but which then expanded their scope to other contexts like the organization of forest management at territorial level and the marketing of forest products (Navascues and Llobet, 2007). Nowadays, Forest Defence Groups are almost 300 and cover 90% of the forest area of Catalonia (Prokofieva and Gorriz, 2013). Forest Defence Groups as well as other forms of FOAs historically benefited from the political and financial support of the public administration (Navascues and Llobet, 2007; Prokofieva and Gorriz, 2013).

The tradition of FOAs in Catalonia is now long-lasting and attendance of forest owners is rather high especially for what regards owners of medium and large properties (Domínguez, 2008). Much can be learned from the Catalan experience in this field. One of the most relevant phenomena is the important role of the [Forest Consortium of Catalonia](#) (CFC in native language), the biggest FOA in the region which was founded already in 1948 and at the beginning included mostly timber oriented forest owners as associate members. At present, CFC performs the task of promoting sectoral FOAs, forest management planning and forest certification (Prokofieva and Gorriz, 2013). Lessons can be drawn from the Catalan FOAs and the analysis of the factors which facilitated their success. From these lessons, recommendations can be developed for other regions in Southern Europe, which are characterized by features similar to those depicting the Catalan forest sector, in order to foster the creation of efficient FOAs and increase forest owners' willingness to associate. In order to contribute to FACESMAP's general aim of considering the differences characterizing forest owners in Europe and accounting for these differences in the formulation of forest-related policies, the STSM here described aimed to classify different types of FOAs in Catalonia and reflect on the (social, economic and political) factors which led to their success. This was pursued in order to organize the material needed to produce a peer-reviewed article on the topic, which would draw recommendations for increasing the success of FOAs in other South European regions.

Here follows a detailed delineation of the STSM's objectives with a description of the methods adopted to achieve them:

1. Identifying the different types of FOAs present in Catalonia. This goal was accomplished by using the results of literature review studies carried out in the past by the performer of the STSM and by researchers affiliated to CTFC. Moreover, this literature review was completed by examining recent written documents dedicated to FOAs in Catalonia, such as peer reviewed scientific articles, reports of scientific project, as well as grey literature mostly published in Catalan and Spanish languages.
2. Classifying FOAs according to their scope, activity and characteristics of associate members. The results of the literature review carried out to achieve step 1 were used also to perform this task. The literature data were integrated with information retrieved during meetings with CTFC researchers aimed at discussing the topic under study.
3. Analyzing the institutional setting of the different types of FOAs. This objective was reached by using data retrieved through qualitative interviews with relevant stakeholders of the Catalan forest sector (such as representatives of the administration, policy makers, forest owners and scientists), which the performer of the STSM and the CTFC researchers carried out during past research activities. Moreover, additional interviews were carried out by the performer of the STSM during her staying in Catalonia, in order to verify the validity of the information collected in the past and increase the amount of information available for the study. Questions for the newly performed interviews were created in collaboration with the CTFC researchers involved in the STSM. Interviewees were selected before the start of the STSM among actors with long-lasting experience

in the topics that were relevant for the study. Interviews were carried out in native language face to face and by phone according to availability of the interviewees.

4. Finding out the social, political and economic processes, elements and events which made for the success of the FOAs. This step was accomplished through the interviews and by discussing the results of the literature reviews and of the interviews with researchers affiliated to CTFC.

### 3. Description of the work carried out prior and during the STSM: activities, methods and results

The Table below shows the activities carried out prior and during the STSM with an indication of the timeframe adopted, while the subchapters that follow the table explain the methods used and the results obtained in the main activities.

Timetable	Activity
Prior to the STSM	Literature review
	Analysis of interviews carried out in the past
	Stakeholder analysis of the Catalan context of FOAs
	Selecting interviewees and contacting them for setting interview dates for the STSM week
1 <sup>st</sup> day of STSM (22 November)	Travelling to and settling in Barcelona
2 <sup>nd</sup> day of STSM (23 November)	Meeting CTFC researchers
3 <sup>rd</sup> day of STSM (24 November)	Meeting CTFC researchers
4 <sup>th</sup> day of STSM (25 November)	Carrying out interviews
5 <sup>th</sup> day of STSM (26 November)	Carrying out interviews
6 <sup>th</sup> day of STSM (27 November)	Carrying out interviews
7 <sup>th</sup> day of STSM (28 November)	Discussing results of literature review and interviews with CTFC researchers
8 <sup>th</sup> day of STSM (29 November)	Leaving Barcelona

Table 1: timeframe of the STSM with an indication of the activities performed

#### 3.1 Literature review

Due to the short time frame of the STSM, a literature review was carried out previously to the start of the STSM, in order to elucidate important aspects related to the identification of different types of FOAs present in Catalonia and to their classification. For this purpose, an analysis of literature studies undertaken in the past by the performer of the STSM and by CTFC researchers involved in the STSM Mission was combined with the examination of new literature on the topics under study. The review focused on peer-reviewed articles (e.g. Navascues and Llobet, 2007; Puy et al., 2008; Prokofieva and Gorris, 2013) but also on technical reports (e.g. Terradas, 2004; Navarro et al., 2010), PhD theses (e.g. Dominguez, 2008) and grey literature produced by the forest administration and by FOAs in Catalonia (e.g. Costa et al., 2013). Moreover, the literature review focused on retrieving information on current scientific approaches used by researchers in Europe for dealing with the topic of FOAs. This was done to acquire background knowledge which would serve the drafting of the Introduction section of the peer

reviewed article's preliminary version. Example of examined literature are: Kittredge (2003) and Berlin et al (2006).

The literature review made clear that Catalan FOAs were rather varied in their objectives and type of membership. Two main types of local FOAs were identified:

- Forest Defense Groups, local associations developed to deal with the issue of forest fire prevention and including not only forest owners but also other society members like inhabitants of forested areas and representatives of the municipal administrations. Forest Defense Groups were mostly created to work in the territory of single municipalities. Federations of Forest Defense Groups existed at county level. Moreover, at Catalan regional level, the Forest Defense Groups were working together in the Catalan Federation of Fire Volunteers (SFADF in native language).
- Forest Management Associations, local associative institutions developed for fostering the active management of forests. They mostly involved private forest owners but in some cases they also included representatives of municipalities which owned forest areas. They had objectives like promoting joint forest management and timber selling. Among the Forest Management Associations, the review highlighted that a particular example was [ELFOCAT](#), the association of Catalan municipalities that owned forestlands. At the level of Barcelona province, a Federation of Forest Management Associations existed which was called [BOSCAT](#). BOSCAT aimed at including Forest Management Associations from all Catalonia and in recent years it expanded its borders of influence to areas outside the limits of Barcelona province.

An important institution in the FOAs context was CFC. Differently from the Forest Defense Groups and the Forest Management Associations who included members from limited geographic areas, the CFC stick out for being the biggest and oldest association of Catalonia (<http://www.forestal.cat/web/>) and it included members from all Catalonia. The CFC played an important role as lobbying actor. This role was facilitated by the fact that the board of CFC was composed by powerful forest owners, some of whom were also part of the board of the Catalan administrative institution dealing with private forest ownership, the [Forest Ownership Center](#) (CPF in native language). Other associative institutions that played a role in the Catalan context of FOAs were the agrarian syndicates (e.g. [JARC](#) and [Unio de Pagesos](#)). Agrarian syndicates played the role of lobbying for the inclusion of farmers' interests and needs in policy decision making. Most forest owners in Catalonia did not only own forestlands but also farmlands. Those landowners for whom forests represented only a minor source of income were often members of these syndicates. Often though, they were also members of CFC or of local Forest Management Associations.

With respect to current scientific approaches used in literature to deal with the FOAs topic, the publications examined showed interest towards the reasons behind willingness of forest owners to associate and the benefits derived from the constitution of associations. This confirmed the relevance of the study performed during the STSM. In addition, it was noted that very few peer-review articles were published on FOAs in Catalonia. This factor made even more evident the need of publishing an article on the success factors of FOAs in the region.



### 3.2 Analysis of interviews carried out in the past

Due to the short time frame of the STSM, a preliminary analysis of the interviews performed in the past by Francesca Ferranti and Elena Gorriz (researcher at CTFC) was carried out previously to the start of the STSM. The goal was starting an analysis of the institutional setting characterizing the different types of FOAs identified in the literature review. These interviews were performed with actors of the Catalan forest sector on topics which were parallel to that of FOAs, such as the conservation of forest biodiversity by different forest stakeholders, the prevention of forest fire and the practice of collecting mushrooms in the forest. Among these interviews, those that were considered to be more relevant were involving scientists with a broad experience of the Catalan forest sector, representatives of the CPF, representatives and members of Forest Defense Groups and Forest Management Associations and representatives of the CFC.

The interviews provided both background information on the Catalan forest sector and specific information on the role and characteristics of FOAs. Some of the interviews performed in the past had been analyzed with MAXQDA, a qualitative data analysis software which allowed defining codes for the topics under study and coding the text of the interview transcripts under the labels used for the codes. Some of these codes regarded forest owners and FOAs. This simplified the analysis of the interview transcripts. Moreover, the transcripts of these interviews were newly analyzed with an open source software alternative to MAXQDA which had the same functions. The analysis was carried out applying codes for the various aspects of the definition adopted for the concept of FOAs' "institutional setting". Here follows a list of the factors considered in this study as part of the institutional setting of a FOA:

- The number of members
- The legal status of the FOA
- The FOA's internal organization
- The source of the funds which the FOA benefits from
- The relations between the FOA and the administration
- The goals of the FOA and the activities performed
- The types of forests owned by the members

The analysis of interviews carried out in the past showed that FOAs were very diversified with respect to their institutional setting. While the legal status of both Forest Defense Groups and Forest Management Associations was that of non-profit organizations, the internal functioning of these two types of FOAs differed significantly, as did the members' number, the FOAs' goals and activities as well as and the types of forests owned by members. For example, Forest Management Associations were mostly joined by private forest owners and in some cases by municipal administrations, while Forest Defense Groups had also representative of the civil society among their members. Forest Defense Groups were mostly involving a smaller amount of members and more Forest Defense Groups were operating in a same given area such as a county. This was because Forest Defense Groups had municipalities as reference areas. Instead, Forest Management Associations had more members and were mostly founded to associate owners from a broad territory like a massif or a county. Another difference was that Forest Defense Groups were mostly created in forests damaged by fires and with the goal of preventing future fire-related damages as well as of promoting exploitation of burned forests, while Forest Management Associations were mostly founded in productive forests with the goal of promoting forest exploitation.

The issue of the source of funds was considered as very important for the determination of the types of FOAs existing in Catalonia. Indeed, the analysis of interviews carried out in the past made clear that two main typologies of FOAs existed with respect to the funds received at the moment of their creation. Some FOAs were founded with funds provided by the members while others with funds provided by the administration (most of all by the province of Barcelona and by the CPF). The FOAs created founded with funds provided by members were mostly created to satisfy needs brought forward by the same members, while the FOAs created with public subsidies were often born to reflect a need expressed by the administration (e.g. prevention from forest fires). This allowed considering a possible differentiation between bottom-up and top-down FOAs. As after their creation most FOAs had received funds from the administration, almost all the considered institutions were to place in a category that constituted a mix between the bottom-up and top-down frameworks defined above. This was for example the case of FOAs which were created with funds of the administration but pursued own goals.

### **3.3 Stakeholder analysis of the Catalan context of FOAs**

This task needed to be carried out before the start of the STSM, as understanding the Catalan context of FOAs was a key step for the selection of the right interviewees for the study. The stakeholder analysis was carried out based on the information about the Catalan forest sector already available to the performer of the STSM and on data retrieved during three Skype calls carried out with Elena Gorriz, host of the STSM and researcher at CTFC. The Skype calls had the goal of allowing a preliminary brainstorming aimed at identifying the main actors of the Catalan context of FOAs. The analysis made clear that not only the single Catalan associations of forest owners were important for the study (Forest Defense Groups and Forest Management Associations), but also umbrella institutions like BOSCAT and the agrarian syndicates were playing a role. Moreover, attention had to be focused at both FOAs with a local and a regional area of influence, like CFC. Finally, not only FOAs including private landowners but also those with affiliated members like municipalities and civil society representatives were considered to be important for the study (e.g. ELFOCAT).

The information retrieved by the performer of the STSM and those discussed during the Skype calls made clear that in the context of FOAs also administrations like CPF, county councils, municipalities and the province of Barcelona played a relevant role.

It was deemed necessary to take into account also the cooperatives, private firms and limited liability companies that were run by the FOAs or by groups of forest owners. Finally, another type institution was considered to play a role in the context of FOAs, namely the Forest Consortia that were joining together county councils and FOAs.

### **3.4 Selecting interviewees and contacting them for setting interview dates for the STSM week**

Contacting interviewees with due notice to allow them booking their agendas with the dates for the interviews was an essential step to carry out before the start of STSM. The short time available to perform the STSM required tight time frames for the interviews. A delay in contacting interviewees and

verifying their availability could have implied risking a mismatch between stakeholders' availability and days which could be dedicated to the interviews. It was decided that 5 to 7 interviews would be conducted with representatives of the institutions that were underrepresented in the sets of interviews carried out in the past (see section 3.2 of this report), or with representatives of stakeholder groups that, albeit being already interviewed, would provide essential information for completing the study.

Potential interviewees were contacted by phone and email in order to verify their availability to be interviewed face to face or by phone during the week of the STSM. It was considered that meeting stakeholders in person was a better strategy to carry out meaningful interviews, as stakeholders might have felt more comfortable with talking face to face with the interviewer. However, the limited time available for the STSM and the different locations in which potential interviewees were to be reached justified the choice of proposing to carry out some of the interviews by phone.

All contacted institutions were available to have a representative provide the information needed to carry out the study. Interviewees were promised that their contribution to the study would be kept anonymous. For this reason, both in the current report and in the peer reviewed article that will be drafted with the information collected, the identity of the interviewees and the features of the institutions they belonged to is not disclosed.

Here follows a list of the actors with whom interviews were set prior to the start of the STSM:

- Two representatives Forest Management Associations. A few interviews with stakeholders from this stakeholder group were already conducted in the past but due to the existence of different types of FOAs it was deemed necessary to interview more actors from this group.
- Two representatives of Forest Defense Groups
- One representative of BOSCAT
- One representative of the province of Barcelona
- One representative of ELFOCAT

Phone interviews were organized with representatives of Forest Management Associations, Forest Defense Groups and ELFOCAT. Face to face meetings were set up with the representatives of Barcelona province and of BOSCAT.

### **3.5 Meeting CTFC researchers**

Two meetings with local researchers affiliated to CTFC (Elena Gorriz and Eduard Plana) were organized to discuss the general context of forest owners associations in Catalonia and to deepen the classification of types of FOAs. Moreover, during the meetings, possible analytical frameworks for the study were discussed as well as questions for the interviews. The meetings were organized as informal talks among researchers and they were recorded for future reference during the study. The researches that participated to the meetings will be the authors of the peer-reviewed article that will be drafted after the STSM.

During the meetings the deep interrelations among different types of FOAs and between FOAs and associative institutions were discussed. For example, forest owners who were members of Forest Defense Groups were often affiliated also to Forest Management Associations. Also, the presence of numerous Forest Defense Groups in certain areas was defined as a feature of a fertile environment for the

development of Forest Management Associations and eventually of cooperatives, enterprises or limited liability companies. The hypothesis was forwarded that there was a logic link between the creation of Forest Defense Groups where forest owners had limited responsibilities and the foundation of other associative institutions (like Forest Management Associations and cooperatives) where owners were taking management and economic responsibilities. Researchers considered the need to ask interviewees about the role of Forest Defense Groups in the creation of Forest Management Associations. Also, deep relations were identified between the boards of the FOAs and administrations like the county council and the CPF.

During the meetings, information on the differences and mutual relations between CFC and BOSCAT was organized. While BOSCAT was a Federation of Forest Management Associations, CFC was a single association involving owners from all Catalonia. BOSCAT was created and supported by the province of Barcelona, while CFC was a private and independent institution created with and supported by the funds of members. Differences between the two associative institutions existed also with respect to their scope: CFC was a lobby association aimed at bringing forward the ideals of forest owners in the political and economic arenas. It acted as consultant offering technical advice to forest owners, but it did not support the creation of management plans and it was not active in selling the wood of its members. BOSCAT instead had a practical and operational scope, it was a more “hands on” institution that operated at local level by fostering the adoption of joint management plans by private owners and the joint selling of wood within single associations. The work of the two institutions was traditionally considered as mostly complementary rather than overlapping. However, in recent years both institutions expected to be considered as the regional level representative of Catalan forest owners. This was reflected in the fact that both institutions were the reference stakeholder that were consulted on forest ownership issues by the regional and provincial administrations. The partial overlapping of competences was caused also by the fact that a forest owner could be part of CFC if interested in political lobbying, as well as of smaller local Forest Management Associations (some of which included in BOSCAT).

The history of BOSCAT was one of the topics addressed during the meetings. The necessity of creating BOSCAT was raised by the provincial administration of Barcelona because the administration realized that, in order to foster the active management of forests, a relation with local actors had to be set with an approach of capillarity. In the past, the province delegated county technicians to keep relations with all FOAs located in a certain county. This approach was then considered not effective enough and around 2009 BOSCAT was created as a single institution that would keep relations with forest owners and their associations. Compared to having technicians working on the territory, BOSCAT had more legitimation among forest owners as the institution was identifiable with a specific name and a physical head quarter. BOSCAT grew to be the institution that represents a medium between the administration and Forest Management Associations of Barcelona area.

During the meetings, the results of the literature review described in section 3.1 were discussed among researchers. With respect to identifying different typologies of FOAs, it became evident that the history of the forests owned by members of the associations was crucial to determine the types of FOAs. For example, north and south of Catalonia were characterized by two different histories of land inheritance laws. In the VII century, the Arabs occupied the southern part of the region but not the northern and central parts. As a consequence, the southern part of Catalonia was subjected to an inheritance law where the land was split among all the sons of a family, while the central and northern parts were subjected to a law determined by a feudal social structure where the first son of a family inherited the land. It followed that land properties in central and northern Catalonia were bigger than in the south of the region and that FOAs in the south wored with more difficulties than in the rest of Catalonia. Another interesting factor

determining the FOAs' types regarded the history of the species that grew on the areas of influence of the FOAs (and of the profitability of these species). For example, in the past the north-west part of Catalonia was covered by wine yards. About 100 years ago the phylloxera pest attacked wine yards in Europe and many owners abandoned their lands and the wine production activity. Forest vegetation started overgrowing in these areas to the point that current generations owned lands covered by forests. These forest owners did not come from families that had the tradition of managing forests. Many forest owners in these areas were not well experienced about the management of their properties. Something similar happened in the Tarragona area, where the main activity was agriculture and lands were cultivated through terrace techniques. Small land properties of half a hectare were providing enough income to owners from cultivation of potatoes or cereals. Nowadays agriculture in these areas was being abandoned and forests were colonizing the terraces. Small land properties covered by forests did not provide anymore enough income to owners. Moreover, landowners were not accustomed to manage the lands. Landowners of these areas were forest owners not due to a choice or to traditions, but rather due to historical circumstances. In these areas, developing associative institutions as well as having them working properly was considered less easy than in areas with a long-lasting tradition of forest management. Areas with long-lasting forest management traditions were normally more productive and were sites where local actors had a strong bond with their forest heritage. The importance of asking questions to interviewees on the history of the forests owned by the members of the FOAs became evident.

With respect to the history of the Catalan context of the FOAs, local researchers explained that in the last 10-15 years the situation changed consistently. For example, in the past only few types of FOAs were functioning: the CFC (influential in areas where forests were productive), agrarian syndicates (influential where forest products were secondary sources of income for landowners and forests were rather poor) and Forest Defense Groups (that had a capillary influence on all the territories burned from fire). Lately, a vast amount of associative institutions were developed, like the Federations of Forest Defense Groups, the Forest Management Associations and their federation (BOSCAT). This complicated the panorama of FOAs.

Hypotheses were brought forward during the meeting on the possibility to categorize FOAs according to whether they had a reference area determined by physical or administrative boundaries. Some FOAs were indeed including members from one or more municipalities (normally Forest Defense Groups), while others were rather referring to a physical area like a massif (normally Forest Management Associations).

Local researchers expressed doubts on whether Catalan FOAs were actually successful as, if compared with French FOAs, communication between the associative institutions and the companies buying the wood was rather weak. Indeed, the Catalan forest sector was characterized by companies who wanted to buy wood for cheap prices, while Catalan forest owners were not available to sell the wood at those prices. This would lead forest owners to sell the wood on the black market. The performer of the STSM pointed out that the economic dimension was not the sole aspect that had to be considered when judging the success of FOAs. Socio-political aspects were important too, such as the reputation that FOAs had within civil society and administrations. Different elements could be considered as manifestations of FOAs' success: FOAs were widely known among social actors not linked with the forest sector; not only forest owners but also non-owners were part of FOAs; the administration was recognizing the role of FOAs and was providing them funds; FOAs had a strong lobbying power. From an analytical point of view, it was deemed essential to define the factors which determine whether a FOA is successful. Two main fields of success were identified: internal success (success recognized as such by the members of the FOAs) and external success (success recognized as such by non-members). Here follows a list of the factors that make for an association to be successful in the two fields mentioned:



- 1) Internal success:
  - technical support for members
  - (economic) benefits for members
  - provision of information to members
  
- 2) External success:
  - maintain relations with the forest administration at regional and/or provincial level(s)
  - recognition by the administration as actor to be consulted
  - networking with other FOAs
  - keeping relations with civil society
  - lobbying activity
  - economic self-reliance

It was considered that defining the factors of success of FOAs was essential for the elaboration of the questions to pose to interviewees. However, it was also deemed important to ask interviewees what they considered as success factors for the FOAs, as well as the modifications to the FOAs' policy framework which were needed to make their work more successful.

With respect to other questions that could be posed to interviewees, the researchers involved in the meetings brainstormed and made a preliminary selection of questions including the following topics:

- The origin of the need to create an association and of the idea behind the rule-setting characterizing the association
- The provision of funds for the creation of the association and for its maintenance
- The changes occurred in the history of the association which regarded the work performed by the association (e.g. effects of the economic crisis)
- Possibilities for creating cooperatives or enterprises involving the members of the associations

### 3.6 Carrying out interviews

Interviews were carried out by the performer of the STSM and involved the stakeholders selected in section 3.4 of this report. Interviews were conducted face to face and by phone. The questions included the items agreed among the researchers involved in the STSM and discussed during the meetings described in section 3.5. Elena Gorritz participated to the face to face interviews and contributed to the interview activity by posing some of the questions (see Figure 4). The interviews were recorded and will be transcribed after the end of the STSM. The transcripts will be analyzed with a software for qualitative text analysis for deepening the identification of FOAs' types and for understanding the factors of success of FOAs



Figure 5: face to face interview

The following two subsections summarize the outcomes of three interviews carried out during the STSM. It was considered a good decision to avoid disclosing all the information retrieved with the interviews in order to keep some material for the upcoming peer review article on the topics under study.

### 3.6.1 Interviews with representatives of Forest Management Associations

Interviews were carried out with representatives of two different Forest Management Associations. The first Forest Management Association had about 120 members belonging to an area physically determined by a massif. The Association did not include the majority of forest owners of the massif. In most of the cases, forestry was a secondary activity for members who were mostly professionals from fields other than the rural one. A few members' main occupation was breeding animals for the food industry. On average, members owned about 70-80 ha of forests. About 80% of the members had adopted a forest management plan for their properties. Forests owned by the members were not covering a continuum on the territory but were rather scattered. Members were of three typologies: 1) about 30% were active forest owners and were economically exploiting their forests (these were not necessarily owners of big properties but rather proactive persons whose families were traditionally managing forests); 2) inactive forest owners who inherited forest lands without being acquainted with the requirements of forest management activities (most of these owners did not even know the boundaries of their properties) and 3) family forest owners, who had a family bondage with the properties but had no experience in managing forests. The three categories of members joined the association for different reasons. For example, typology 1 members joined the association because they realized that actively managing forests was becoming more and more complex with the increasing of the incomes retrievable from the forest. Actors belonging to typology 2 became members of the association because they felt a social pressure regarding the fact that they were abandoning the management of their forests.

Forests owned by members of this association mainly produced energy biomass and cork. The association was offering the following services to its members:

- 1) Joint forest management, both for the production of wood and cork. The association performed forest interventions for forest owners and required competitive fees for the jobs. The prices requested were not the lowest on the market, but forest owners who chose to have their management carried out by the association would have the guarantee to gain more money in the long run. The interviewee declared that in performing forest management interventions, private enterprises were mostly aiming at a short-term profit, while the association was aiming at a long-term sustainability of economic interventions. The association was a non-profit organization, so the revenues obtained from carrying out forest interventions for members were invested in the functioning of the association and in the provision of other types of services to members.
- 2) Joint selling of cork. Wood was more difficult to sell jointly as forest owners were rather accustomed to sell wood individually to wood industries and mostly under conditions determined by the black market.
- 3) Publication of a magazine with information for the members
- 4) Organization of information days for members
- 5) Free advising of forest activities
- 6) Free comparison of prices for carrying out forest management interventions (association's prices VS prices estimated by private forest management companies).
- 7) Applying for European funds for the implementation of territorial projects involving members

Activities other than wood and cork production were carried out in the forests owned by the members, such as sport, tourism and hunting. However, the association was not busy with managing these activities due to difficulties in regulating them.

The representative of this association declared that members were most of all satisfied about the services offered by the administration in the fields of advising forest management activities and free comparison of prices. With respect to cork production and selling, members were very satisfied as the association founded a private company together with a local family that owned a factory producing bottle caps, another local Forest management Association and the CFC. The company was able to offer to members competitive prices for the cork. The interviewee mentioned that members were instead complaining about the complex

bureaucracy characterizing the forest sector and about the fact that they sometimes perceived the association was mainly working most for big forest owners and .

Tight linkages existed between the association and CFC, as all the members of the association joined CFC together and as a consequence representatives of the association were guaranteed an influential position in the CFC's board. Moreover, some of the members of the CFC's board who owned forests in the area of influence of the association became members of the association. This allowed the association to perform effective lobbying at policy level. The association was also part of BOSCAT. Initially BOSCAT was taking care of the commercialization of a big part of the cork produced by the members of the association, as BOSCAT had established connections and formal contracts with industries that were not accessible to the association. At the moment of the study, the association was able to commercialize the cork alone and the main services that BOSCAT offered to the association regarded the establishment of relations with other Forest Management Associations. Thanks to relations with both BOSCAT and CFC the association was able to bring forward the interests of the members to the attention of the administration. In particular, the lobbying activity the association was benefiting from regarded technical forest management issues. With respect to the overlapping competences of BOSCAT and CFC, the interviewee declared that the association relied on the institution that offered the most interesting benefits for specific contexts. The association was also tightly linked to CPF, as some of the CPF's board members were also affiliated to the association. Moreover, CPF was sometimes contacting the association for consulting its representatives or members on technical issues related to forest management. Less tight linkages existed between the association and Forest Defense Groups, which did not have a strong role in the foundation of the association. However, members of the association were also members of 5 Forest Defense Groups. About 40% of the members belonged also to Forest Defense Groups. The association did not have relevant relations with the agrarian syndicates, but the interviewee hypothesized that some of the members of the association might have been also members of agrarian syndicates, as a portion of forest owners owned also farmlands.

The interviewee mentioned that the association had established successful relations with Catalan forest Universities and research centers. According to the interviewee, knowledge and information transfer was an important service provided by the association to its members. For this service to be successfully implemented, the need emerged for the association to be linked with the sites where knowledge was developed. Also relations with the civil society were considered important by the interviewee, even though the association was most often participating to open days organized by other institutions than taking initiative in this field.

The history of the association was rather long-lasting as the institution was founded about 20 years before this study. The association was created with the funds of the members and had objectives determined by the same members. In its early history, the association started to have relations with the provincial administration of Barcelona, in the period in which the province was promoting the possibility to adopt joint management plans involving the properties of more than one forest owner. The relation with the provincial administration represented an added value to the work of the association, as the province started to drive the association's work towards the performance of technical interventions in the forests of its members. A contract was stipulated between the association, the municipalities located in the area of influence of the association and the province. Some of the municipalities that owned forest areas became members of the association after the establishment of that contract, as it happened for the same province of Barcelona. After that, a period started in which the association was relying on the work of a forest technician paid by the province of Barcelona who was partially steering the objectives of the association towards the priorities set by the provincial administration (e.g. forest fire prevention). When the province of Barcelona gave life to BOSCAT, the association joined it and benefited from the funds provided by the province, which were mostly aimed at supporting forest fire prevention works but also at supporting the administrative costs related to the maintenance of the association. At the moment of the study, after the economic crisis, the association was no longer receiving consistent funds from the administration and it started to live out of the revenues of the forest interventions performed in the forests of its members.

When asked about the factors which determine the success of a FOA, the interviewee mentioned that the most important aspect was that the association would manage to achieve its own objectives, let these be the fostering of wood mobilization or forest fire prevention. Another aspect considered important by the interviewee was economic self-reliance, even though he recognized the usefulness of the funds provided by the administration for covering costs linked to the bureaucratic functioning of the association. The existence of a strong group of active and interested forest owners, which could represent the base of support for the work of the association, was deemed an essential element of success. As last, the interviewee referred to the ability of the association to involve an always-increasing number of members. The representative of the association mentioned a recommendation useful for fostering the success of FOAs in Catalonia: simplifying bureaucratic and legal rules for the association to act for its members in front of the administration, in order to lighten the amount of paper work for forest owners.

The second Forest Management Association was located outside the boundaries of Barcelona province. It had 170 members who owned forestlands of different sizes. Most of the associated owners owned about 20-30 ha of forests, while some properties reached 200-300 ha. A small minority owned more than 1000 ha. The association included also 14 municipalities as members, most of which were owners of forested areas while others became members only to support the association in its lobbying activities. The association covered an overall territory of 1000 ha. About 20-30% of this area was managed under forest management plans. Some of the forest owners developed joint management plans involving adjacent properties.

Among the services provided by the association to its members figured the organization of the management and final cutting interventions which were carried out by contractors. In the early years of the association, the area where the members' properties were located was not profitably exploitable. At the moment of the study, thanks to the activity of the association, the forests of the area were exploited and provided a revenue for the owners. The main forest product was energy wood and in particular pellets, while wood for construction represented only 30-40% of the production. The association organized also a system of joint selling for its members, implemented not at the overall level of the administration but rather of homogeneous areas. The association took care of the administrative costs linked to the wood selling and of transport costs (contractors performed the transport). Among the services, the interviewee mentioned also the obtainment of cutting permits from the administration and the communication with forest owners about themes issued by the administration. Finally, the interviewee mentioned that the association was performing lobbying activities for its members. Most of these activities were focused on putting forwards the needs of forest owners in terms of forest fire prevention. The services that gave more satisfaction to the members were the organization of the cutting operations and the wood selling, as they produced revenues for the owners.

The association was established in 2011 in an area that was not economically exploited for the previous 40-50 years. Six active forest owners who together owned about 100 ha commenced it. For the foundation of the association, funds provided by the European Union through the CPF were used to cover initial costs. At the moment in which this study was performed, the administration did not anymore provide consistent fund to the association and costs were mostly covered by the membership fees paid by the members and by the revenues obtained by the cutting and selling of the wood. Indeed, the association retrieved 5% of the wood revenues. When asked whether the association could function without the funds provided by the CPF, the interviewee said that this would have been possible because most of the work carried out by the association was limited to performing forest management activities which provided a revenue.

The association covered areas that underwent damages from forest fires and areas that were never burned, with the goal of starting to manage the forests for their maintenance. During the first few years of existence of the association, the members contacted forest management companies that would cut the trees and sell the wood. However, owners were confronted with an unpleasant reality: the enterprises that

were asked to carry out final cutting interventions were not available to pay the owners. This was because the costs of the interventions could not be covered by the revenues derived by the wood selling. After the intensive management interventions organized by the association, at the time in which this study was carried out forest owners were able to receive a compensation by forest enterprises for the final cutting. This was a great achievement for the members of the association. From the moment in which revenues could be obtained from the exploitation of the forest, the membership of the association grew significantly to include about 170 members at the time of the study.

With respect to relations between the association and other institutions, the interviewee declared that the association was supporting the work of the CFC but it was not officially linked to it. Also, just few members of the association were personally affiliated to CTFC. Relations between the association and agrarian syndicates were not strongly developed either. Even though about 30-40% of the associations' members owned also farmlands, the interviewee was not aware of how many of these members were affiliated to agrarian syndicates. The association was part of BOSCAT since the beginning of the association's history. Reason provided by the interviewee was that joining other associations would make the association stronger. BOSCAT was offering several important services to the association and the association's representative declared to be very satisfied with BOSCAT's support. Among these services figured bureaucratic and practical support provided for the foundation of the association (in particular for the drafting of the association's statute) and technical advice. Being part of BOSCAT did not generate any costs for the association and this was positively perceived by the interviewee. The association was not making use of the joint wood selling service offered by BOSCAT. Due to the fact of being located outside the boundaries of Barcelona province, the costs linked to the distance to be covered to mobilize the wood and sell it jointly to the other associations affiliated to BOSCAT did not justify the utilization of this service. The fact of being located in another province was a disadvantage for the association, as Barcelona province did not offer the funds for hiring a forest technician who would assist the association. Finally, the interviewee mentioned that the association had tight relations with the Forest Defense Groups which it was implementing common projects with. Though, Forest Defense Groups did not play a role in the foundation of the association. Each one of the 14 municipalities members of the association had a Forest Defense Group. Moreover, the association had relations with about other 10-15 Forest Defense Group not linked to municipalities affiliated to the association.

The association had established some relations with forest Universities. The work of the administration for creating linkages with civil society was much more intense than that of establishing relations with the scientific world and it consisted most of all in giving classes at elementary and junior high schools. The association was working hard for transmitting the message to children that sustainable forest management was an activity with positive consequences for forests. For example, according to the interviewee, forest management performed according to the rules of sustainability benefited the conservation of forest biodiversity, fire prevention and protection from hydrogeological disasters, as well as it limited the invasion from exotic species.

When inquired about the factors which guarantee that the success of FOAs, the interviewee mentioned the independency of the association and its to increase revenues obtainable from the exploitation of the members' forests. Also, the association should have been able to become an example for the establishment of other associative institutions. The interviewee mentioned that in order to increase the success of forest owners associations it would be necessary to 1) prevent politicians from being affiliated to associations in order to avoid corruption, 2) reduce the complexity of the bureaucratic processes to undertake in order to found forest enterprises and cooperatives, 3) open calls for public funds only for forest interventions and other activities which do not generate a revenue for forest owners and 4) foster the adoption of biomass heating systems.



### 3.6.2 Interview with a representative of a Forest Defense Group

The interview was carried out with an actor affiliated to a single local Forest Defense Group, who was also the president of a Federation of Forest Defense Groups belonging to a specific county. The interviewee started explaining the history of the Forest Defense Groups belonging to the Federation. Most of them were initiated in the early 1980s, after extensive fires damaged a consistent portion of the county forests. The Forest Defense Groups started as unions of fire volunteer who would work together with professional firefighters in the extinction of forest fires. The occurrence of the 1980s fires made clear that the work of the professional firefighters was not enough to defeat big fires and that there was need of involving the local population in the firefighting activities. The aim of the Forest Defense Groups was organizing the volunteer efforts of the people living in forested areas, whose houses were mostly scattered on the territory. These types of associative institutions were linked (and still are in most cases) to the boundaries of the municipalities. In 1986, after a second period of big forest fires affecting the county, the Forest Defense Groups gained legitimation and were officially recognized by the administration. This was also the period in which the Federation of Forest Defense Groups was created. The Federation was developed so that the affiliated Forest Defense Groups could support each other and exchange experiences. Also, the Federation contributed to homogenize the conditions in which Forest Defense Groups were working for example by supporting the training of one Forest Defense Group by another. Finally, the Federation had the role of representing the Forest Defense Groups in front of the provincial and regional forest administrations. The province of Barcelona had a strong role in the creation of the Forest Defense Groups. During the 1980s the provincial government was opposing itself to the Catalan regional government. In order to acquire credibility among voters, it started the tradition of developing municipal fire prevention plans that were consisting in facilitating firefighting activities by creating and maintaining forest tracks as well as identifying specific locations where to extract water from during the occurrence of fires. The municipalities had a strong role too, as they set up contracts with the province of Barcelona and committed to provide funds for the implementation and revision of the municipal fire prevention plans.

The interviewee declared that the Federation had established good relations with local policy makers. In particular, a member of the county council was also in the board of the Federation. The Federation had also tight linkages with the Forest Management Associations operating in the county. The Federation had some occasion of exchanging information and know how with the Catalan forest research centers. It was also busy with transferring to society the values of volunteer firefighting. This last activity was most of all performed in schools where representatives of the Forest Defense Groups were explaining the concept according to which managing forests is not damaging the forest environment but rather contributing to improve it and maintain it. The Federation and the Forest Defense Groups were sometimes consulted by the provincial and regional forest administrations but this relation was hardly a two-way process, as mostly the administration was imposing its decisions to the members of Forest Defense Groups.

When inquired about the characteristics of the local Forest Defense Group he was affiliated to, the interviewee declared that the associative institution had more than 100 members. Most of these were forest owners while the others were forest owners' family members and representatives of the municipality. Members owned mostly more than 100 ha. Some members owned more than 500 ha. The owners produced mostly energy wood and pellets that were used to make the biomass heating system of the municipality run. Always more frequently, members of the Forest Defense Group were becoming affiliated also to Forest Management Associations. The Forest Defense Group the interviewee belonged to had relations with 8 Forest Management Associations, most of which were created with the goal of

fostering forest management in areas subject to forest fires. Forest Defense Groups in his county were created before Forest Management Associations and, even if they did not have a direct role in the foundation of the Forest Management Associations, they transferred to forest owners the awareness that associating was necessary to work better. This awareness was also the basis for the creation of Forest Management Associations. In general, the interviewee perceived Forest Defense Groups to be more successful than Forest Management Associations. According to the interviewee, this was demonstrated for example by the fact that all forest owners of the county were part of Forest Defense Groups while not all of them were affiliated to Forest Management Associations.

The most interesting aspect of the interview was the strong entrepreneurial ambition characterizing the Federation of Forest Defense Groups represented by the interviewee. Indeed, the Federation had founded a cooperative which sold the energy wood produced by the members to the municipalities which had biomass heating systems. The cooperative owns chipping machines, which it rents also to privates who want to produce their own energy wood. Moreover, the cooperative works for the Forest Management Associations of the area that want to chip their biomass. This was a pioneer experience in Catalonia and represented evidence for the fact that it was possible to produce biomass from burned forests at prices which are profitable for the forest owners. The work of the cooperative made the Federation rather autonomous from an economic point of view. Public funds were provided to the Forest Defense Groups only by the CPF that supported the maintenance of the fire volunteers' equip (e.g. repairing vehicles after fires and providing an insurance for the vehicles) and by the province of Barcelona which financed the maintenance of infrastructures like forest tracks and water sources. The interviewee declared that the Forest Defense Groups could continue working also without these public funds. This had become clear to the interviewee after the year before the study, time in which for the first time the CPF reduced the types of subsidies. The interviewee made clear that, in this context, the situation of the Forest Defense Groups was different from that of Forest Management Associations. Forest Management Associations were in fact not created for carrying out activities which are directly answering a need of forest owners, but rather for starting management activities in forest areas which were not management before. In the view of the interviewee, this was the reason why Forest Management Associations could not survive without the economic input of public subsidies.

With respect to the services offered by the Forest Defense Groups and by the Federation, the more appreciated by the members were:

- The free and unconditioned mutual help of fire volunteers in case of fires
- The positive outcomes of keeping the forests clean from excessive accumulations of fuel through frequent management interventions (this in most instances was preventing fires from becoming too big)
- The services of the cooperative and the cheap prices offered to members
- The development of experiences in the field of forest management in an areas which was historically covered in wine yards and where the local population does not have a forest management tradition to refer to

When inquired about the success factors of Forest Defense Groups, the interviewee perceived that a generational change in ownership was needed in order to have more successful FOAs. This was because elderly forest owners maintained memories of the civil war, period in which sometimes properties were subtracted to the owners. They were often were afraid that joining FOAs would mean losing their lands. Instead, young forest owners or owners who bought forestland only in recent times were more open to

associative processes. The interviewee mentioned also the possibility for Forest Defense Groups to involve always new and young people to continue effectively its activity, as well as the need to train volunteers for performing a dangerous work like supporting professional firefighters in case of fire. The interviewee mentioned that necessary measures to take in order to ensure the success of Forest Defense Groups were improving the level of internal organization of the Forest Defense Groups and equipping all vehicles belonging to Forest Defense Groups with GIS technology to improve safety of operations during fire.

### 3.7 Discussing results of literature review and interviews with CTFC researchers

The information obtained from the literature review and the interviews were discussed with the CTFC researchers that will be the co-authors of the peer review article on success factors characterizing the performance of Catalan FOAs. The discussion concluded that the study carried out during the STSM allowed obtaining enough results to justify the writing of the article. However, it was considered necessary to carry out a few other interviews with representatives of agrarian syndicates and of the SFADF.

### 4. Future collaboration with hosting institution

Future collaborations between Nature&Society and CTFC researchers will consist in finalizing the conduction of interviews, transcribing and analyzing them and organizing the information retrieved on the success factors of Catalan FOAs in a peer review article. The article will include the development of recommendations for fostering associative processes among forest owners of Southern European countries where FOAs are not yet successful.

### 5. References

- Berlin C, Lidestav G and Holm S. 2006. Values placed on forest property benefits by Swedish NIPF owners: Differences between members in forest owner associations and non-members. *Small-scale Forest Economics, Management and Policy* 5(1), pp. 83-96.
- Costa O. Summers B. Maier S. Tang S. and Kerckhaert N. 2013. *The development of the association of forestry owners in 'el Massis del Garraf' for the energetic exploitation of forest biomass*. 6t H UPC International Seminar on Sustainable Technology Development. Vilanova i La Geltrú
- Domínguez G. 2008. *Understanding Forest Owners in a Mediterranean Context. Constructing Theory Through Descriptive and Interpretational Analysis. A Study Case in Catalonia*. Albert-Ludwig University of Freiburg. Freiburg im Breisgau
- Fletas M, Bayona M, Cervera T. 2012. *Estructura de la propietat forestal de Catalunya. Anàlisi de dades cadastrals*. Centre de la Propietat Forestal. Santa Perpetua de Mogoda, Barcelona.
- Kittredge DB. 2003. Private forestland owners in Sweden: large-scale cooperation in action. *Journal of Forestry*, 101(2), 41-46.
- Navascues P and Llobet S. 2007. La gestión de montes privado en regeneración a través de asociaciones de propietarios forestales. *Cuadernos de la Sociedad Española de Ciencias Forestales* 21, pp. 61–66.
- Navarro PJ, Judit Rodríguez Bayo, Mireia Codina i Palou, Dr. Glòria Domínguez i Torres and Ignacio López Vicens. 2010. *Prospects for the market supply of wood and other forest products from areas with fragmented forest ownership structures. Case study: Catalonia/Spain*. CTFC, Solsona.
- Plana E. 2010. El foc i la gestió de la informació. *El Periódico* 22/01/2010

- Prokofieva I and Gorriç E. 2013. Institutional analysis of incentives for the provision of forest goods and services: An assessment of incentive schemes in Catalonia (north-east Spain). *Forest Policy and Economics* 37, pp 104–114.
- Puy N, Tàbara D, Molins JB, Almera JB and Rieradevall J. 2008. Integrated assessment of forest bioenergy systems in Mediterranean basin areas: the case of Catalonia and the use of participatory IA-focus groups. *Renewable and Sustainable Energy Reviews* 12(5), pp. 1451-1464.
- Terradas J. 2004. Els boscos i l'home a Catalunya: una aproximació socioecològica. *Els boscos de Catalunya. Estructura, dinàmica i funcionament*. Barcelona, Generalitat de Catalunya. Departament de Medi Ambient i Habitatge, 11-26.
- Vayreda J. 2004. Gestió forestal. In: Terradas J and Rodà F (Eds.). *Els boscos de Catalunya. Estructura, dinàmica i funcionament*. Generalitat de Catalunya. Departament de Medi Ambient i Habitatge. Barcelona. Pp. 95-113.
- Villanueva JA (Ed). 2005. *Tercer Inventario Forestal Español 1997-2007*. Ministry of Environment of Spain. Barcelona, Girona, Lleida and Tarragona.

## Annex 1: confirmation by the hosting institution of successful execution of the STSM



Barcelona, November 30<sup>th</sup> 2015

To whom it may concern,

I undersigned Elena Górriz confirm that Francesca Ferranti has been successfully carrying out her Short Term Scientific Mission entitled "*Analyzing success factors of private forest owners' associations in Catalonia (NE Spain)*", and funded by the COST Action FP1201: Forest Land Ownership Changes in Europe: Significance for Management and Policy (FACESMAP).

During her staying at the CTFC office (from the 22<sup>nd</sup> to 29<sup>th</sup> of November), Francesca managed to compare information she retrieved in the past on Catalan forest owners associations with the information I had collected on the same topic. She also performed seven interviews with actors of the Catalan forest sector. Finally, she designed the structure of the peer-reviewed article we will write together on the success factors of forest owners associations.

I consider the Mission of Francesca Ferranti accomplished.

Best regards,



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