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Social Values of Forests and Production of New Goods and Services: The Views of Swedish Family Forest Owners

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Abstract Forests are considered crucial assets for sustainable rural development, and contemporary forestry is an industry where production, environmental and social goals can—and should—be handled simultaneously. Swedish family forest owners (FFOs) are expected to both manage and conserve their forests for the benefit of the whole country, but there are contradictions between development and conservation and between traditional and alternative forms of utilization representing dilemmas in rural areas. Tensions between urban and rural areas, between demands on what to produce and protect, are often linked to the FFOs' views on opportunities for forest management. The aim of this study is to identify and analyse the extent to which FFOs perceive that social values have the ability to generate “new” goods and services as a supplement or alternative to traditional forestry, and to suggest how the forests might be managed to render high social values. Fifty-seven interviews were conducted with FFOs (both resident and non-resident). The results indicate that regardless of where they reside, FFOs have a multifunctional view of their forests and forest management, that the social values attached to forests can play an important role in development of local recreation- and forest-based tourism activities, and in this respect they can enhance sustainable rural

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development. It is, however, not obvious who might start and develop these businesses, since there seems to be a lack of interest among the FFOs themselves.

Keywords Social values · Multifunctionality · Family forest owners (FFOs) · Rural development · Sweden

Introduction

In the scientific literature, there are different views on how forests and forestry can best contribute to sustainable rural development (see Glück and Weiss 1996; Lindgren et al. 2000; Elands and Wiersum 2001; Slee et al. 2004; Elands and Praestholm 2008). Much previous research has, mainly focused on the forest industry's impact on the local labour market and rural economy (e.g., Lindgren et al. 2000), an approach which we argue is no longer fruitful since sustainable rural development implies more than a focus on economic growth alone (Munday and Roberts 2001; Slee et al. 2004). There are three dimensions to sustainable development: the economic, ecological and social. These dimensions are closely linked, with the economic element often being greatly dependent on the other two (Giddings et al. 2002; Robinson 2004). Within the paradigm of sustainable forestry and agriculture, the conscious management of forests for multiple purposes is now being greatly promoted (Haaland et al. 2011; Almstedt et al. 2014). Furthermore, ensuring that landscapes do not become mono-functional is now seen as being of key importance in handling the uncertainties and risks caused by climate change (Felton et al. 2016).

In accordance with international trends, the political incentives to increase the diversification of Swedish forests have increased over recent years, manifested in, for example, the government's environmental quality objectives and their subdocuments, published in 1998 and later. To date, the main political goal has been to enhance biodiversity alongside traditional production; social and aesthetical values have been less prioritized (Widman and Bjärstig 2017). One reason for this imbalance is that "the social values" of forests is a contested concept without an agreed upon definition (e.g., Bjärstig and Kvastegård 2016; Sténs et al. 2016; see also Government decision 2014). The Swedish Forest Agency (SFA) currently defines the "social values of forests" as "the values created by people's experiences of forests" (SFA 2013: 6), and implicitly connects to the framework of cultural ecosystem services (De Groot et al. 2010) by giving examples of values that incorporate good health and wellbeing, good living environment, outdoor recreation and tourism, aesthetical values, outdoor education and knowledge about forests and the environment, intellectual and spiritual inspiration, identity and cultural heritage. There are aspirations, and more importantly practical opportunities, to exploit these values and create new goods and services to increase the economic viability of rural areas, and at the same time help the transition to more multifunctional and resilient forests (SOU 2006: 81; Government Skr 2008/09: 167; SOU 2013: 68; Government decision 2014; Hannerz et al. 2016). This is not just a Swedish concern, but is part of a broad international movement involving both policymakers and scientists.

Rural studies on ecosystem services, not least cultural ecosystem services, are thus becoming increasingly important at all levels (Nordanstig 2004; Fisher et al. 2009; Bryan et al. 2010). However, there is a definite need for place-bound research regarding attitudes among actors, and of the institutional constraints that may preclude development of the social values of forests, and which might need changing to render rural sustainable development (cf. Rodriguez-Pose 2013). We seek to answer these needs with this article based on the experiences of family forest owners in Sweden.

Swedish forest policy is to a large extent deregulated and gives great leeway to forest owners, especially when it comes to the governance of social values. Hence, decisions made by family forest owners (hereafter referred to as FFOs) are crucial to what happens to forest resources in Sweden (as in other countries with a large proportion of privately owned forest; Wiersum et al. 2005). Since around 50% of Sweden's total forest land is in the hands of approx. 330,000 FFOs, they are an important group which should be studied closely when it comes to policy implementation and future forest management.

Studies indicate a gap between the science-based political aims of achieving diversification and multi functionality of rural landscapes and what actually happens on the ground. A survey of FFOs who are members of the Federation of Swedish Farmers (LRF) shows that less than 30% engage in forest-related activities such as tourism and health-related businesses (Umaerus et al. 2013). Yet recent studies indicate there is great potential in the Swedish forestry sector for providing services and products based on the forest's social values and the rural environment in combination with, or as an alternative to, traditional timber production (Appelstrand 2009; Umaerus et al. 2011, 2013). Where it does exist, the combination of forest ownership and entrepreneurship is an example of a long tradition in rural areas. It provides income and other assets to individuals as well as to local communities, and can also strengthen the local labour market (Alsos and Carter 2006; Wilson 2010). But according to Appelstrand and Lidestav (2015), this potential is underexploited by FFOs in terms of developing profitable enterprises.

The aim of this study is to examine what FFOs perceive as the "social values" of their forests, and the possibilities of creating a multifunctional property based on these values, i.e., the options to generate "new" goods and services from the forest's social values as a supplement and/or alternative to long-standing biomass extraction. Furthermore, we examine FFOs' attitudes towards forest management for high social values, and analyse the extent to which their views differ depending on socio-economic characteristics and residential proximity to the forest.

The main question to be analysed is how FFOs relate the forest and their ownership to sustainable rural development, i.e., multifunctionality. This question is operationalized by the following five sub-questions:

1. What does the term "the social values of forests" mean to FFOs?
2. To what extent are FFOs managing their forests to enhance social values?
3. How are FFOs managing their forest to enhance social values?
4. What limitations and obstacles do FFOs perceive to utilizing their property for the creation of new goods and services?

5. How do gender, educational background, single or shared ownership and residential proximity to the forest among FFOs, relate to 1–4 above?

Analytical Background

Our starting point is the presumption that multifunctionality is a prerequisite for sustainable rural development and enhancing the social values of forests (e.g., Haaland et al. 2011). The core principle of multifunctionality is that a given tract of land should provide multiple services (or functions) that benefit people and their environment. However, during much of the twentieth century, policy instruments and planning frameworks effectively countered multifunctionality. This period—what may be termed the era of “productivist” or “high modernism” forestry—saw the singular promotion of food and fibre production as the dominant function and land use in many rural areas around the world (e.g., Scott 1998). Forestry became associated with an industrial model with monocultures at its centre and with limited ecological and aesthetic diversity. This model was so entrenched it was seemingly immovable, and yet over the course of the late twentieth century concerns about the state of the landscape and the ecological, ethical and public health dimensions of this productivist era began to gain increasing support. Ultimately, these concerns were responsible for enhancing an alternative terminology (e.g., sustainable development, biodiversity, ethical, accessible, integrated, multi-purpose and multifunctional), and stimulated far-reaching policy shifts, in essence changing the agenda for land use (MacFarlane 2007).

Over the past three decades, landscapes have emerged as a product of rural land use and environmental management in their own right, no longer assumed simply to follow as a by-product or desirable spin-off from productively farmed or forested rural areas. Associated with this development is an increasing acceptance of the need to consider the capacity of these dominant land uses to accommodate other uses and develop in such a way that a range of functions can be served in individual parcels and wider landscapes. This trend is paralleled by international policy developments which have established a set of policy instruments to reposition farmers and other productively oriented managers as environmental stewards (MacFarlane 2007; Slee 2007; Haaland et al. 2011).

Multifunctionality can be implemented on different spatial and temporal scales in a landscape. It may exist by: (1) separating land units for different functions (spatial zoning); (2) by having different functions devoted to the same land unit, but at different times (temporal zoning); or (3) by the integration of different functions on the same unit of land at the same time, i.e., spatial integration or “real multifunctionality” (Brandt and Vejre 2004: 26). Swedish forest policy promotes the first and last of these strategies, prescribing spatial zoning for nature conservation purposes and supporting spatial zoning for recreation, and prescribing or recommending a spatial integration of other ecological, cultural heritage, educational, recreational and aesthetical values in all productive forests. Within the Sápmi region, reindeer husbandry has to be considered as well (Beland Lindahl

et al. 2017). This strategy of general consideration and equal prioritization of biomass production, biodiversity and so-called “social” and “aesthetical” values in Swedish forests, was introduced in 1993, partly in response to commitments made at the 1992 United Nations Conference on Environment and Development (Government Prop. 1992/93: 226).

This general picture of multifunctionality has been analysed by other researchers in some depth, but how the policy of multifunctionality is received and implemented on the ground by FFOs has been less studied. Thus, in seeking to fill this gap this study takes a bottom-up approach, and examines the FFOs’ perceptions regarding multifunctionality in their forests and their views on institutional constraints such as the right to public access (*allemansrätten*), property sizes and ownership constellations in relation to the perceived possibilities of developing new goods and services.

Materials and Methods

Study Area

Qualitative interviews were conducted with FFOs with holdings in six Swedish counties (Västerbotten, Jämtland, Dalarna, Värmland, Västra Götaland and Kronoberg; Fig. 1). All six counties consist of a few urban and peri-urban areas and extensive, rural areas. They differ in terms of the extent of forest cover (from 64% in Västra Götaland to 85% in Värmland, Dalarna and Kronoberg), population density and land ownership structure (SOS 2014). Large public and private forest companies dominate the sparsely populated north (Västerbotten and Jämtland), while non-industrial/small-scale forest owners are common in the more densely populated south (Västra Götaland and Kronoberg) (SOS 2016). This combination of counties provides a representative picture of FFO holdings in Sweden.

The perception of the social values of forests is assumed to be context-dependent and place-specific (Bryan et al. 2010). We know from previous studies that there are differences between FFOs’ perceptions depending on their residential proximity to the property, gender and age (Lidestav and Ekström 2000; Holmgren et al. 2005; Berlin et al. 2006; Nordlund and Westin 2011; Eriksson et al. 2013). These socio-demographic differences and specific characteristics informed our sampling of FFOs. We ordered contact information (address and phone number) to FFOs from *Skogsägarförteckningen*, a complete database of all Swedish forest owners (<http://www.skogsagare.se/>), based on the principle that the selection should be representative of all FFOs in Sweden, regarding socio-demographic variables such as gender, age and “residents”, living adjacent to their forest, i.e., in the same municipality (five for each county); and “non-residents”, living in the same county but not in the same municipality as their forest holding (two for each county), or living in another county (three for each county).

In total, we tried to contact 105 FFOs from our pre-ordered sample, and succeeded in conducting 57 interviews in 2015. To maximize the number of respondents, we offered to conduct the interviews during the week, in the evenings and on weekends. The participation rate (48 did not participate) was not evenly

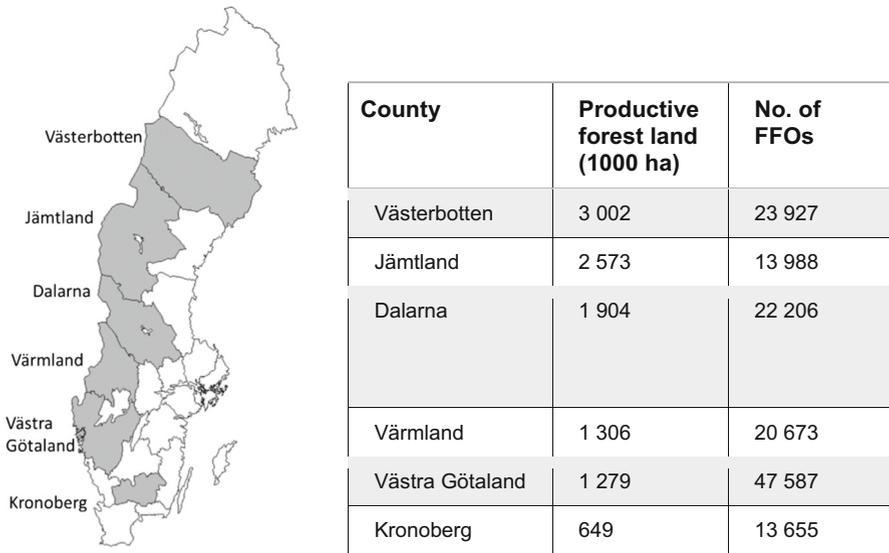


Fig. 1 Map of Sweden showing the six counties included in the study (named and marked in grey). The corresponding table provides data on productive land area and family forest ownership (FFO), by county (SOS 2014)

distributed among the counties (supplementary material A). Compared to the composition of FFOs in Sweden, the representation of male FFOs ended up being higher among the respondents. More than half of the respondents are members of a Forest Owner Association compared to 34% of the FFOs in Sweden. This could indicate a stronger dedication to forestry among the respondents (Kronholm 2016). The proportion of non-residents is also higher than among FFOs in Sweden. Still, we find the sample representative for FFOs with forest holdings in rural areas of Sweden regarding most variables (Table 1). Age among the respondents varies between 26 and 87. Mean age is 62 years. The holdings varies between 2 and 1400 ha with a mean of 177 ha.

The non-participation rate can partly be explained by incorrect phone numbers and/or no response in spite of repeated calling (29); some indicated an unwillingness to participate (14), and a few respondents no longer had a forest holding (5). The first interview was carried out face to face and was used to test the interview manual; one respondent had impaired hearing and so answered the interview questions by e-mail; all other respondents took part in the interviews over the telephone. The interviews lasted between 15 and 57 min, and all were recorded with the permission of the participants, and then transcribed in full. The participants had the opportunity to read the transcripts and were able to clarify, change and/or alter what they had said, in order to ensure validity (Baxter and Eyles 1997).

Table 1 Respondents socio-demographic composition compared to all FFOs in Sweden

	Respondents	Sweden (%)
Men	37 (65%)	61
Women	20 (35%)	38
Resident	30 (53%)	68
Non-resident	27 (47%)	32 ^a
Member of a Forest Owner Association	30 (53%)	34

^a incl. partly non-residents (SOS 2014)

Semi-Structured Interviews

The interviews were semi-structured, with open-ended questions (supplementary material B), and conducted mainly by telephone (Kvale 1996).

The analyses of the interviews were conducted in multiple ways. The qualitative analysis of the transcripts was conducted as a content analysis, following the theoretical rendered themes in the interview manual (i.e., a thematic analysis), which allowed for a more descriptive and interpretive analysis of the themes. All answers in the transcripts were also coded and compiled as a quantitative dataset. This made it possible to make quantitative comparisons among the respondents and identify some general trends and patterns as a complement to the qualitative analysis. We are aware that this is a small sample, and thus we handle the quantitative results with caution, not implying they are by necessity representative to all FFOs in Sweden.

We, i.e., the researchers, did not define ‘social values’, this was up to the individual FFO to define, and accordingly their definition also affects if and how they perceive they should manage their forests for enhancing social values, the possibilities for new goods and services as well as perceived obstacles and limitations. Specific quotes were identified that strengthened, clarified or illustrated the FFOs’ perceptions. Confidentiality was maintained throughout, and in keeping with this we therefore refer to the participants by gender, birth year, resident/non-resident and county, rather than by name. The original interview language was Swedish; all excerpts presented here are our translations into English.

Results

The Views of FFOs on Forest Social Values

We asked the participants to describe in their own words what—if anything—the “social values” of their forests meant to them (the question was open-ended, allowing for wide-ranging answers); we later sorted their answers in accordance with the broad themes based on the Swedish Forest Agency’s examples (SFA 2013: 6; Fig. 2). The results show that our participants most frequently associate recreation

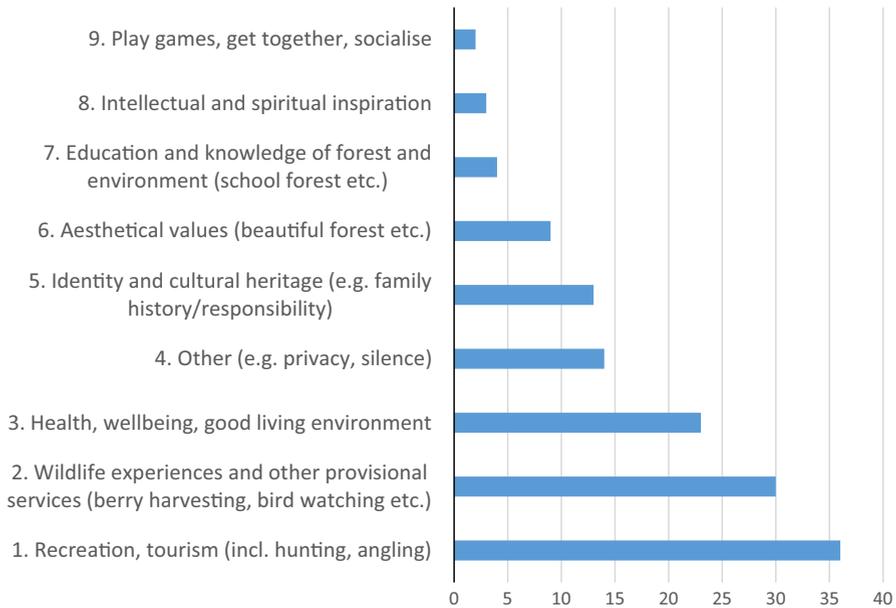


Fig. 2 Bars displaying different themes and perceptions of social values among interviewed FFOs (n = 57, FFOs could mention multiple perceptions)

and tourism with the forest's social values, along with nature-centred experiences such as bird watching and the harvest of non-timber forest products (e.g., berries and mushrooms). Health, wellbeing and a good living environment are also commonly associated with the social value of forests (cf. Bjärstig and Kvastegård 2016; Sténs et al. 2016).

One interesting theme emphasized by many FFOs, and which is uncommon in official policies and documents, is the importance of silence in the forest. The feeling of “solitude” and privacy was also mentioned as an important social value:

The only [social] value is that it [the forest] is located where it is quiet. You won't hear the cars. (Male, 1950, non-resident, Kronoberg)

I would not appreciate it if there were a lot of people running around there. I want it as my private place. (Female, 1970, non-resident, Jämtland)

Additionally, many FFOs (especially men) perceive the positive feeling of having the forest as an economic asset as a social value:

It is reassuring to have the forest; it is a bit like insurance for retirement. (Male, 1944, resident, Värmland)

No less than 53 of the 57 respondents recognize that their own forest *is* important in terms of social values, if not to the public then at least to themselves. As mentioned before, privacy and the possibility of experiencing the forest “alone” is regarded as very important by many FFOs. This is especially common among the respondents

Table 2 Female FFOs emphasize health, wellness and a good living environment to a greater degree than male FFOs

	Health, wellness and a good living environment		
	Yes	No	Total
Men	12 (32%)	25 (68%)	37
Women	12 (60%)	8 (40%)	20
Total	24	33	57
Pearson $\chi^2(1) = 4.0474$		Pr = 0.044	Cramér's V = 0.2665

living in a rural context and on their property. Moreover, these respondents often present the forest as an integral part of their way of life:

We're out in the woods on a daily basis; it's more of an ordinary lifestyle for us than for city dwellers. They go out and do 'recreation', but for us it is a part of our lives. I've lived and grown up in the woods – it is our way of life. The forest is where we live: it's commonplace. (Male, 1977, resident, Västerbotten)

Further, FFOs living on their properties seem to put greater emphasis on the economic value of the forest than non-resident forest owners living further afield, while both categories emphasize the importance of recreational and environmental values. Among other socio-economic variables correlating with definitions and views on forests' social values, gender stands out among our respondents. The female FFOs emphasized health, recreational and environmental factors, such as the conservation of "pristine" nature, to a greater extent than male FFOs (Table 2).

Men more commonly emphasized the value of wood production, underlining their view of the forest as an economic asset. This correlates with the fact that female FFOs in this study have a higher level of education than male FFOs, and thus are potentially less economically dependent on their forest holdings (cf. Haugen et al. 2016). However, it is obvious that none of the FFOs who participated in this study are driven exclusively by profit. They also value the forest as a source of recreation, cultural heritage and biodiversity, and as a place to live. Our analyses thus indicate a definite multifunctional view of forests among the landowners (see also Hugosson and Ingemarsson 2004; Ingemarsson et al. 2006).

Views on Forest Management to Enhance Social Values

We asked the participants if they manage their forests to enhance their social value, and if so, how. The specific question was framed thus: *What do you think about forest management to promote social values? Do you practise any alternative forms of forestry or have specific management plans that encourage social values?*

Twenty-six of the respondents stated that they consciously manage their forest in some way to enhance its social values, while 19 stated that they do not consciously manage the forest to achieve that goal; 12 did not respond. However, a majority do apparently believe they enhance forest social values directly or indirectly, since

most of the respondents argue that traditional forest management (for wood extraction) is a prerequisite for many social values; “well-managed forests”, i.e., planted and thinned forests, are considered as both beautiful and accessible, and are thus seen as essential for a range of the social values displayed in Fig. 2.

It’s more of an economic issue to keep down shrubs and brushwood, otherwise there will be bad regrowth. But it makes the forest more accessible, after all. And I am more careful around fishing areas and such places. There you make it more nice looking. (Male, 1977, resident, Västerbotten)

Others claim social values are best promoted by management that prioritizes biodiversity. Several forest owners also claim they try either to avoid clear-cuts altogether or adjust them to the landscape in order to promote multifunctionality. In this respect, selective cutting is put forward as a preferred management practice by some of the FFOs:

... my own plan is pretty much to try to combine forestry with a great deal of ecological thinking and then you achieve quite a lot of the social values as well I would say ... you achieve a forest with more variation. There should be no large clear cuttings, the shape of the clear-cuts should be as natural as possible ... We try to create as great a variety of tree species as possible ... Preservation of old and dead wood has mainly to do with nature conservation, but at the same time, this is what makes the forest more exciting in my opinion ... I have not made an active choice to work with the social values, to develop them, so to speak. In our case, I think it is something you achieve with ecological management. (Female, 1977, resident, Västra Götaland)

... I try as hard as possible to avoid clear-cuts. (Male, 1943, resident, Jämtland)

It goes without saying that I do not want, well maybe not gladly, to make a clear-cut or just mangle the forest, but since I have such a small forest there are no large areas to harvest either. (Male, 1966, non-resident, Västra Götaland)

The respondents’ attitudes towards clear cuttings seem to reflect if they have more of a mono- or multifunctional perspective on their forests; this is especially so where clear cuttings are explained as a natural choice for timber production:

No, it is a production forest and so clear cuttings have been our choice. (Male, 1947, resident, Västerbotten)

Deep wheel tracks and other damage by vehicles used for forest operations are mentioned as a problem by several owners, and thus something they try to avoid in the management of their forests:

... I might avoid using large heavy machinery on the ground ... to avoid vehicle damage and the like. (Male, 1966, non-resident, Västra Götaland)

Among the non-resident FFOs, it was noticeable that many choose not to manage the forest on their own, preferring to hire local forestry entrepreneurs. In this respect, a number of new management techniques were cited: drones/apps/satellite data were all mentioned as offering non-resident owners the chance to follow the management of their forests from a distance. This has some interesting results. One respondent works as a forestry entrepreneur, and he describes his experiences of forest management thus:

Yes, then there are just as many opinions on how to manage the forest as there are people. It is very common that landowners approach us and ... discuss what they want it to look like ... We drive tiny machines now, which they are very pleased with. They think these machines increase the social values ... they think it becomes insanely beautiful, it increases the aesthetics of the forest, according to them. (Male, 1977, resident, Västerbotten)

Possibilities for New Goods and Services

In answer to the question “Do you intend to affirm/enhance the social values of the forest and/or develop them?”, 34 FFOs stated they do not see such possibilities, while 18 do (five did not answer the question). Notably, the FFOs who emphasized aesthetic values also intend to enhance the forest’s social values to a greater degree than others (Table 3).

When asked “Do you see an opportunity to develop ‘new’ products and services based on social values?” more than half of the respondents were positive (six did not answer the question). The first question was specifically connected to their own forest holding, while the second question was more general and not necessarily connected to their own holding. Accordingly, we may say with confidence that many FFOs do indeed see a possibility to develop new products and services based on social values, but crucially they do not see themselves doing this on their own holding. Rather, they see FFOs in other parts of the country (often those in the south, preferably with holdings close to urban areas and adjacent to water) as being

Table 3 FFOs who perceive aesthetic values as being part of social values intend to enhance/develop the social values of their forests to a greater degree

	Aesthetic values		
	Yes	No	
Enhance/develop social values	6 (33%)	12 (67%)	18
Not enhance/develop social values	3 (9%)	31 (91%)	34
Total	9	43	52
Pearson $\chi^2(1) = 4.01$	Pearson $\chi^2(1) = 4.94$	Pr = 0.026	Cramér’s V = - 0.308

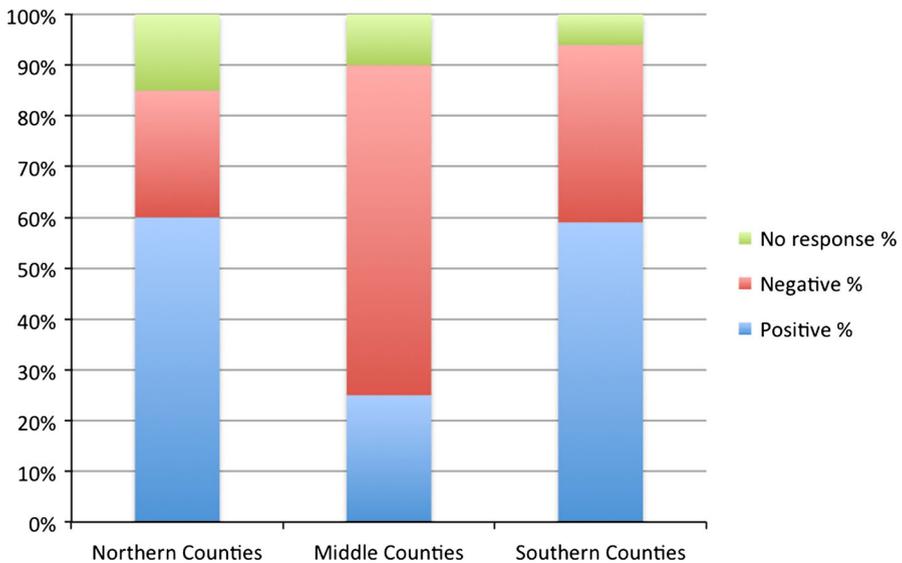


Fig. 3 Responses to the question: “Do you see an opportunity to develop ‘new’ products and services based on social values?” Responses in percentages (%) related to forest holdings in different parts of the country

the ones to take this forward. As one respondent put it: “*Right here I think the options are too weak. It should be closer to an urban area if it was to develop into something.*” (Male, 1959, resident, Kronoberg)

The most active FFOs are found in the northernmost and southernmost counties. Seventy percent of the respondents in Västerbotten and Jämtland and 76% of the respondents in Kronoberg and Västra Götaland consider themselves as very active forest managers (7–10 on a scale of 1–10). In contrast, only 40% of participants in Värmland and Dalarna (in the middle of Sweden) consider themselves as very active. Thus there is no north–south gradient in activity. Respondents living on their properties, and respondents who work or have worked in the forest sector, clearly regard themselves as more active in managing their forests (cf. Umaerus et al. 2013). Our study also indicates the more active FFOs in the northern and southern counties are inclined to take a more positive view of the possibilities of enhancing new goods and services based on social values in forests in general (Fig. 3). Interestingly, it would appear that male FFOs are more positive than female FFOs (Fig. 4).

Another interesting divide among the FFOs relates to the purposes for which they intend to enhance social values and/or develop them. Most develop non-commercial activities for their own use and/or for local residents:

Yes, I’ve put out some benches, I have logs, rough ones that I have split and made into benches and placed in the forest, where people can sit and rest, watch and enjoy. (Male, 1950, resident, Kronoberg)

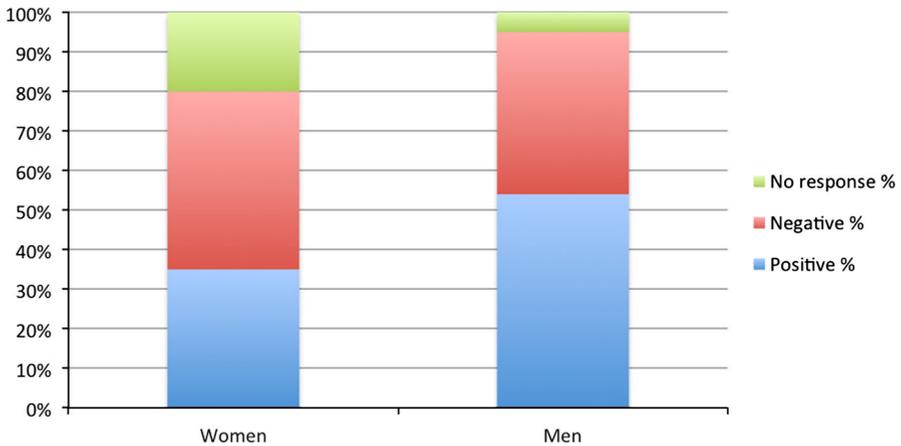


Fig. 4 Responses to the question: “Do you see an opportunity to develop ‘new’ products and services based on social values?” Responses in percentages (%) related to gender

Yes, for my own part, I have thought of developing them [the social values], but I do not want to exploit them in any manner. (Male, 1970, resident, Dalarna)

... on the property, we have a natural beach, a beach that we offer to the public at no cost. So, it is a recreation area. But you do not think about it, when you live here in the village. (Male, 1982, resident, Västerbotten)

When it comes to hunting, many FFOs keep the rights on their land to themselves and/or let family members hunt for free rather than lease these rights to hunters who are prepared to pay. Some of those interviewed do, however, see possibilities to develop their forests’ social values for more commercially oriented business opportunities; along with leasing out hunting grounds, renting out cabins is often mentioned, but the respondents also gave examples such as horseback riding and canoeing/rafting—activities where the forest surroundings are important for defining the whole experience:

We ran a horse trekking company here and we used our own land to ride in the wilderness, and then the forest is very important because it is wilderness, it is the freedom you want to experience. (Female, 1950, resident, Värmland)

In general, most FFOs feel positive about the idea that other FFOs should or could develop new goods and services based on social values. Many of those who associate forests’ social values with recreation and tourism also see potential to develop new goods and services (Table 4).

Hence, tourism and recreation in the modern sense are most commonly perceived as business opportunities, although some of the respondents gave many “traditional” examples where other FFOs have developed and/or refined their forests’ social

Table 4 The FFOs who perceive recreation and tourism as a part of the social values also see a potential to develop new goods and services to a greater degree

	Recreation and tourism		
	Yes	No	
Possibilities to new goods and services	20 (74%)	7 (26%)	27
No possibilities to new goods and services	11 (46%)	13 (54%)	24
	31	20	51
	Pearson	Pr = 0.039	Cramér's V = - 0.2887
	$\chi^2(1) = 4.251$		

values—moose farms, dog sledding, beaver safaris, survival classes, hunting, fishing, leasing tree houses, etc.

I have a colleague who I think over the last few years has earned his living from leasing out boats and cabins. A lot of tourists come here from foreign countries: Germans, Dutch and Danish people. (Male, 1950, resident, Kronoberg)

Some FFOs (mainly females) also mentioned more innovative uses for forests, e.g., utilizing the forest for rehabilitation of stress-related syndromes and depression (cf. Annerstedt et al. 2010; Lundell and Dolling 2010; Sahlin 2014):

To me the social values of the forest are very important. And today it is nice to see that they have achieved an even greater importance, there is more and more about this in the media, we talk about the forest as a wellness activity. Then I think about this thing that doctors can prescribe – exercise ... I think it is very, very good for your health! Our mental health would be much better if we could be out in the woods and fields to a greater extent than we are. (Female, 1970, non-resident, Västerbotten)

How to profit from these kinds of services is, however, still an issue:

... one could utilise the forest for wellness of course, but somehow you need to get paid because otherwise it must be harvested. (Female, 1977, resident, Västra Götaland)

The third question—“*Can social values create new business opportunities and contribute to local and regional development?*”—is broader than the former questions. A majority (31) of the respondents believe social values can indeed create new business opportunities that could contribute to local and regional development, while 11 do not share this view. A significant number of the latter group are from Jämtland. All but two are male, live on their property or in the same county and consider themselves as active forest owners. In contrast, all respondents from Västerbotten believe the social values of forests can contribute to rural

development. Sustainable tourism is usually mentioned by the respondents as a way to enhance sustainable rural development more generally:

... sustainable nature tourism for example: that is a sector that could be developed, and in this respect the forests are of huge importance ... (Female, 1977, resident, Västra Götaland)

Supposedly it is the tourism – that is the only thing that counts. That they can put a price on nature and experiences of nature and by doing so contribute to a sustainable countryside. (Male, 1957, resident, Dalarna)

Perceived Obstacles and Limitations

In general, most FFOs do not plan to develop their own forests' social values into new goods or services. Indeed, many had not even thought of this option before the interview, one remarking succinctly: *"I guess I haven't thought about it."* (Female, 1951, non-resident, Dalarna). Some perceive themselves as being too old to try, i.e., age is seen as an obstacle: *"No, I do not think so; I'm too old to think about stuff like that. It is the young who will have to think about it."* (Male, 1941, resident, Dalarna). Additionally, many state they lack the time, financial means and/or knowledge to develop new goods and businesses:

... once, we planned to launch a paintball business where people had to get outside; I suppose that is a social value, but it was put on ice – we do not have time enough... (Male, 1977, resident, Västerbotten)

The most prevalent institutional constraint on developing the social values according to many FFOs is the extensive right of public access in Sweden, (*Allemansrätten*). Ever since the 1940s this customary right has been expressed as a principle allowing people to visit, walk and use non-motorised vehicles on almost all land, public as well as privately owned, and to harvest some of its resources.¹ During the last decade there has been a debate about whether *Allemansrätten* should not extend to commercial activity on private land without asking the landowners for permission. Organized landowners have put pressure on tourism companies, profiting on the right of public access for their businesses (Sténs and Sandström 2014a).

In the interviews, several examples support this point:

Yes, here is where the public access rights get a little dubious. There are these places where canoes are leased, where the pressure is intense on the ground. It is obvious that the legislation has not kept up with this development. Today it is possible to exploit other people's lands and use it without the landowner

¹ Not all areas or goods are included in the right to public access; military areas, cultivated farmland and private gardens are excluded. Natural and cultural conservation areas may also be associated with specific restrictions. Also excluded are limited resources of present or historical economic importance, such as trees or parts of trees, grass, stones, gravel and peat. Hunting and fishing are also strictly regulated and do not fall within *Allemansrätten* (SEPA 2011).

getting paid. So this is an area you might need to look into. (Male, 1945, non-resident, Västra Götaland)

I dislike when someone else is on my land and making money from it. (Female, 1975, non-resident, Västerbotten)

If you think about rural development, for example a small business owner in a rural area who intends to develop a tourist activity in the forest, then it is very important, I believe, that there is a dialogue with the landowner from the beginning ... because otherwise, it is easy to end up in a position where somebody else starts to earn money by utilizing your forest and that will only be inconvenient to you. (Female, 1977, resident, Västra Götaland)

Thus, one perceived obstacle stemming from the Swedish right of public access is that it may allow external entrepreneurs to utilize a person's property; another is that it is hard to put a price on a forest-related experience and actually charge for it since access to the forest is free of charge for the public in the first place:

Well, if I put the effort into doing something, of course I want to earn something from it. Just to go on and do something and invite others for free is not for me. (Male, 1945, non-resident, Västra Götaland)

Several of the respondents also emphasized the risk of an unwanted cost if they develop recreational values: more people on the property often implies an increase in the garbage and litter left behind, as well as an increased risk of fire:

I do not think it is good to have it [the forest] too attractive because then it will become littered. (Male, 1939, resident, Värmland)

Yes, sometimes you wonder if people are illiterate; there are big signs saying that you cannot make a fire here, you cannot camp here ... and then they say 'What, can we not have a bonfire here?' If everyone did think twice, then we [the FFOs] would surely also be more accommodating, but ... this place is located quite close to Europe. (Male, 1953, non-resident, Kronoberg)

The presence of large carnivores (i.e., mainly wolves, but also bears) is also perceived as a severe constraint by some FFOs in Dalarna, Värmland and Västra Götaland (cf. Von Essen 2016; Eriksson 2017). Respondents claimed that carnivores—and the policies that govern them—limit the opportunities of leasing out hunting grounds, since hunters do not want to release their dogs in these areas. Furthermore, the increase in the number of carnivores is changing the prerequisites that are necessary to make a living as a farmer; according to some of the respondents, in the long run this may also preclude multifunctionality and sustainable rural development. This could also explain the pessimism felt about the possibilities of developing new goods and services registered among the respondents in mid-Sweden counties (Fig. 3).

No, but this thing with the social values will always be worse for us in the villages. When the wolves arrived here it was the worst thing that could ever

happen to us who reside here. Animal husbandry and all these things, as an example – nobody wants to invest in sheep farming if there are wolves in the area. Yes, free hunting of wolves, it is the free hunting of wolves that we really need. (Male, 1970, resident, Dalarna)

It also emerged that the small size and/or multiple owners of land holdings acts as a constraint on efforts to enhance the forest's social values (cf. Eggers et al. 2014). When a property is owned by two or more people, there is a risk that the owners do not have the same objectives for ownership or the same management strategies, or that decisions regarding forest management are blocked by one of the owners. To overcome the disadvantages inherent in small units of land, many FFOs suggested that some kind of collaboration with neighbouring landowners was needed:

Not on my land, but if more owners joined together there are development opportunities to build on regarding tourism, I think. (Female, 1961, resident, Dalarna)

No, the fact that we are three siblings [sharing the holding] would lead us into a heavy decision-making process ... (Male, 1945, non-resident, Västra Götaland)

As well as using informal collaborations of this sort to overcome the restraints imposed by small land holdings, Forest Owner Associations were seen as important forums for the exchange of knowledge and good practice (cf. Berlin et al. 2006; Kronholm 2016). Many participants also felt that Tourism Associations could play a vital role in this respect, the ambition being to create arenas in which to work together to promote social values.

Concluding Discussion

Our study clearly illustrates that the “social values” of forests is a vague concept made up of a range of different views and ideas (see Fig. 2; Bjärstig and Kvastegård 2016; Widman and Bjärstig 2017). As with the findings of other studies, the concept is most frequently associated with recreation and tourism (Sténs et al. 2016). However, FFOs in this study also highlight simple things such as silence, the feeling of solitude and privacy, and cite these as important social values. These particular values have been overlooked in the past, and they could perhaps be more heavily emphasized in official policies in the future since environments providing silence and solitude are becoming increasingly rare in a largely urbanized society such as Sweden (cf. EEA 2016). Silence and solitude also attracts foreign visitors to Sweden (Fredman et al. 2012).

The results indicate a prevailing multifunctional view on forests among the respondents, a conclusion which is supported by the findings of other studies (Hugosson and Ingemarsson 2004; Ingemarsson et al. 2006). Multifunctional forestry is emphasized by the respondents when they talk about management strategies, many stress the possibility of managing their forests in various ways, and quite a few claim they try to avoid clear-fellings at final harvests. Accordingly,

multifunctional forestry with various methods should be promoted by the Swedish Forest Agency in their contacts and consultations with FFOs. Social values could also be accounted for to a higher degree in forest managements plans in the future. However, a commonly held opinion is that “social values” are best provided by ordinary productive forestry as currently practised in Sweden, i.e., with clear-cuts, scarification, planting and thinning—since the owners perceive this to render “well managed”, beautiful and accessible forests.

The size of forest holdings is undoubtedly an important factor. Indeed, a study by Eggers et al. (2014) shows that property size is generally the most important factor correlated with FFOs’ choices of management strategies. Eggers and her colleagues found that owners of properties of more than 50 ha often indicate they actively seek to increase wood production and future logging potential. In our study, a majority (62%) of the respondents owned large properties of more than 50 ha. However, the respondents most positively set to new goods and services owned larger properties of 100 ha or more, and considered themselves active forest owners. Hence, one of our conclusions is that large and active forest owners share an optimistic view on the capacity of forest resources to provide new goods and services based on social values and other values.

Some FFOs (mainly well-educated females) mentioned more innovative commercial uses of the resource at their disposal, e.g., utilizing the forest for the rehabilitation of stress-related syndromes and depression (cf. Annerstedt et al. 2010; Lundell and Dolling 2010; Sahlin 2014). Other studies seem to indicate that this particular interest is, in fact, typical among female forest owners since women often work in the health and service sectors (Umaerus et al. 2013). Most FFOs claim they already enhance the social values of their forests, but mainly for their own use and/or for the benefits of local people; some see possibilities for new businesses, but our respondents’ collective motivation to actually start an innovative commercial venture was low: they may be aware of business opportunities, but they do not want to develop them themselves.

Institutional constraints that hamper forest development are found at both individual and structural levels. Most FFOs stated they lack the time, financial means and/or knowledge to develop the social values of their forests (Bjärstig and Kvastegård 2016). Shared ownership, small forest holdings and the location of the forest too far from people and water are also held to be limitations on commercial development. For many of those who are generally positive about enhancing forest social values, the Swedish right of public access to land (*allemansträtten*) is also perceived as an obstacle since it makes it harder for a landowner to develop services and activities they could charge for. Right of public access means that landowners do not have an exclusive right to earn money from activities taking place on their land (cf. Sténs and Sandström 2014b). Hence, the right of public access in its current form may preclude the development of some commercial goods and services. There is today a movement among actors involved in forest policy processes in Sweden to refine the right of public access, with clarified boundaries between common goods, commercial and organized activities and private property rights (National Forest Programme 2016). Such clarification would probably satisfy reluctant FFOs, and their relations to leisure and tourism organisations might improve. There are

however still ways to create businesses who rather takes advantage of the right of public access. Landowners could educate themselves about these opportunities (Sténs and Sandström 2014b).

The burgeoning population of large carnivores in Dalarna, Värmland and Västra Götaland, and the relevant legislation governing these animals, was cited by a significant number of FFOs as a further serious obstacle to developing new goods and services based on the social values of their forests. Many suggest that the wider possibilities for sustainable rural development are seriously hampered by the unchecked presence of these animals (Von Essen 2016; Eriksson 2017). These views can be seen as part of a long-running conflict between town and countryside.

A high proportion of today's forest owners do not live on their properties, but reside in more urban environments (Haugen et al. 2016). Previous research shows that forest owners who live on or adjacent to their forest estates view their holdings differently, and set different priorities to those who live in towns (Holmgren et al. 2005; Nordlund and Westin 2011). There is, however, a research deficit on what implications this may have for sustainable rural development. This study address this particular deficiency, we have found that living on or nearby the forest holding is perceived to enhance sustainable rural development, as well as forest management. It is important to add, that forest owners who do not live and work on their properties still affect the rural context through their choice of management methods, which directly or indirectly generate ecological, social and economic consequences locally. Almost all interviewees stated the importance of living near to forest holdings; it was no surprise that the residents stated this, but perhaps more interestingly a majority of the non-residents agreed.

To sum up: according to the majority of the respondents in this study, forest resources could play an important role in the development of businesses based on local recreation and forest-based tourism activities, and in this way enhance sustainable rural development (cf. Wiersum et al. 2005). It is, however, not obvious who would develop these businesses, since there seems to be a lack of interest in doing so among the interviewed FFOs themselves, where the customary right to public access is perceived one important barrier. This study provides novel insights of place-bound attitudes among FFOs with forest holdings in rural parts of Sweden, and the institutional constrains they perceive seems to preclude development of the social values of forests at least to some extent, which might need changing to render multifunctionality, i.e., rural sustainable development. Additional studies in other regional and/or national settings are much needed to give a more comprehensive picture of perceived institutional constraints among FFOs (both nationally and internationally), as well on their views on the possibilities for achieving diversification and multifunctional forest properties, i.e. spatial integration, to develop profitable enterprises based on forests social values also in more urban contexts. It would be interesting to compare results from this study with studies of FFO entrepreneurship in other countries who share the same extensive rights of public access to land, such as Finland, Norway and Scotland. Forests social values is on the raise and on the agenda internationally, not only in relation to multifunctionality, but also in relation to sustainable forest management, certification and ecosystem services – where FFOs play a major role in implementation.

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Compliance with Ethical Standards

Conflict of interest No potential conflict of interest was reported by the authors.

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