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Social capital in small-scale forestry: a local case study in Southern Sweden.

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Abstract

Small-scale forestry builds upon interactions among local stakeholders. Forest management entails multiple social situations such as consultations or cooperative engagements between owners and forest professionals. Successful social endeavours rest on positive social capital as operationalised via trust. Based on qualitative in-depth interviews with forest owners, managers and other forestry stakeholders, this study explores how trust influences the social relationships in a local context of Southern Swedish forestry. Most strikingly, the analysis reveals large differences in owners' trust towards two major actors: the Swedish Forest Agency (SFA) and the forest owner association (FOA) Södra. Permanence of personnel, a client-based approach, and personal features of SFA's local forest officer lead to strong local anchoring and high trust towards SFA. Södra proved to be a trustful partner in the aftermath of calamities; however its industrial priorities seem to erode owners' trust. The empirical findings of this study demonstrate the importance of recognising personal relationships and the catalysing role of bonding social capital in order to understand the local forest management situations. Our results are useful for forestry organisations and policy-makers willing to comprehend the local context and implement best practices in small-scale forestry.

Key words: Bonding social capital; Particularised trust; NIPF owners; Swedish Forest Agency; Södra.

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1. Introduction

Non-Industrial Private Forest (NIPF) owners constitute the backbone of the Swedish forestry, totalling 11.6 million ha or roughly one half of the productive forest area (Skogsstyrelsen, 2013a). Majority of NIPF owners are small-scale, estates averaging ~50 ha. The Swedish forestry model is known for respecting forest owners' rights, and forest policy is based on consensus-building rather than strong regulation (Brukas and Sallnäs, 2012). The main body of forestry administration, the Swedish Forest Agency (SFA) has evolved with a key mission to guide and advise owners, stressing the importance of strong local anchoring (Skogsstyrelsen, 2013b). Sweden is also known for strong forest owner cooperation. More than one third of NIPF owners belong to forest owner associations (FOAs) whom are typically heavy industrial players (Skogsstyrelsen, 2013a). NIPF owners and FOAs are co-dependent: owners can enjoy profits from their shares and have access to various services provided by their association (advice, planning, contracting silvicultural measures, etc.); FOAs, in turn, procure timber from NIPF estates that often constitute the raw material base for their industries.

Against this background, one could expect sizeable social capital accumulated through the local interactions between NIPF owners and representatives of SFA and FOAs. Research on social capital within forestry revealed the essential role of social networks on owners' activeness in Finland (Korhonen et al., 2012). In Sweden, many investigations have been devoted to NIPF owners' objectives and decision-making (e.g. Hugosson and Ingemarson, 2004; Hysing and Olsson, 2005; Ingemarson et al., 2006). In contrast, relatively little research has been done on relationships between forest owners and other forestry stakeholders (Fischer et al., 2010). Törnqvist (1995) concludes that the social networks surrounding NIPF owners display the same pattern of contacts for most owners. Local traditions influence the choice of advisors, but most important is the personal contact and trust with a particular advisor. Increased understanding of local and personal relationships will be beneficial for forestry organisations and policy-makers willing to comprehend the local context and implement best practices in small-scale forestry.

Our study aims to examine the qualities of social capital present in the relationships between forest owners, SFA and FOA Södra in a local Southern Swedish setting. The key hypothesis is that the relationships between NIPF owners and local stakeholders are based on mutual trust, reinforced by strong local anchoring of SFA and Södra. We first review the theory of social capital as applied in forestry and then proceed with examining stakeholder interactions based on qualitative interviews with owners and other forestry stakeholders. Our findings are then discussed in relation to the evidence found in other Swedish and foreign studies. Finally, we discuss possible consequences for forestry organisations and policy-makers.

2. Conceptual background

2.1 Social capital and trust

Social-ecological forestry systems are not only influenced by the amount of physical capital (e.g. timber resources and infra-structures) and economic capital; but also shaped by the social capital, i.e. the amount and quality of cooperation and networks that exist in societal structures (cf. Coleman, 1990; Putnam, 2000). Putnam (2000) presents two types of social capital: bridging and bonding. *Bridging* social capital refers to the trust among people when they take part in open and inclusive networks providing collective benefits (e.g. clubs, church congregations); whereas *bonding* social capital is presented as trust among closer and exclusive networks that are not easily accessed and in which members know each other very well (e.g. families, close networks of friends, criminal organisations). In that sense, bridging social capital is related to societal values and customs, whereas bonding social capital is associated with individualised experience, information and economic rationality exercised in a particular setting.

For Svendsen and Svendsen (2009) social capital is operationalised in trust studied in three main fields: economics (transaction costs), political science (institutions) and sociology (norms). Different authors theorise on close linkages or overlaps between social capital and trust, even if their interpretations are somewhat differing. Coleman (1990) sees the degree of trustworthiness of social organisations as the most important form of social capital. Putnam (1993) and Franke (2005) regard trust as both an outcome of social capital and a prerequisite for building the social capital. Paldam and Svendsen (2000) as well as Svendsen and Svendsen (2009) define social capital as the level of trust within a group, essentially equalising these two concepts.

Trust is the relationship when a 'trustor' (the one giving trust) relies on actions, directed to the future of a 'trustee' (the trust receiver). Hence by trusting, the trustor loses control and must face the uncertainty of the actions that the trustee will take (Uslaner, 2002). Nooteboom and Six reflect: "we trust someone (…) if we expect him not to be opportunistic even if he has both the opportunity and the incentive to do so" (2003: 4). Trust is the basis for the leap of faith that helps us to take on new relationships in an uncertain future (Möllering, 2006). Trust is what makes society function; without trust we could not be able to interact with others. Depending on the relationship between trustor and trustee we can talk about generalised trust or particularised trust (Uslaner, 2002). *Generalised* trust is trust we have to society in general and is based on the expectation of shared "fundamental moral values" (Uslaner, 2002: 18); accordingly, you can trust people whom you have never met. But at the same time, divisions in class or ethnicity diminish generalised trust (Uslaner, 2002). Indeed, societies closer to the ideal welfare state model, as the Nordic countries (where the thought that *you can trust most people* is more common), show higher levels of generalised trust; ergo, are richer in social capital (Rothstein, 2009). In contrast, *particularised* trust is based on our previous experiences and the knowledge we have regarding the trustworthiness of the trustee (Uslaner, 2002). Particularised trust is also rational: whereas you trust or not, rests on the expected, positive or negative, outcome of a specific interaction (cf. the English saying: "fool me once shame on you, fool me twice shame on me"). Moreover, committed personal connections are powerful ways of building trust (Hardin, 2001; Swain and Tait, 2007).

The two types of trust are anchored to two types of social capital: bridging social capital is related to generalised trust, and bonding social capital is linked to particularised trust. Relationships between actors could be explained through: (i) bridging social capital, e.g. by undertaking a network approach and quantifying the strength of ties within civic networks (structural generalisation); and (ii) bonding social capital, e.g. by qualitatively exploring the particularised trust within personal interactions (personalised particularisation).

2.2 Social capital in forest research

Studies on social networks, communication and relationships within forestry reveal a variety of perspectives on social capital. Smith (2012) examined the significance of good relationships between local communities and forest officers. Trustful relationships have been found to play a key role in community-based conservation models (Baral, 2012), joint forest management (D'Silva and Pai, 2003), and multifunctional forestry within multi-ethnic communities (Bizikova et al., 2011). Trust building within the Russian forest sector through the implementation of certification schemes and corporate social responsibility has been highlighted for increasing social capital and improving the relationships between institutions, companies and local communities in general (Nysten-Haarala and Tysiachniouk, 2013). Korhonen et al. (2012) showed that timber-buying companies and forest management associations in Finland are compelled to keep and foster their relationships with committed customers, i.e. forest owners.

Our study focuses on the experiences, relationships, and perceptions that affect the trust between stakeholders in the local context of Southern Swedish forestry. Trust in advisors and face-to-face interactions are significant for the success of communication (Hujala and Tikkanen, 2008). Besides, understanding of local situations (Baral, 2012) and celebrating local identities (Smith, 2012) are key to

trustful relationships. The Swedish forestry model is beneficial, since it allows advisers to take into consideration personal objectives of the owner and not just to follow the rulebook. Hence, forest officers' knowledge about the owners' objectives and attitudes improve mutual comprehension (Kindstrand et al., 2008) augmenting trust. Not omitting the fact that a trusting relationship comprises a, perhaps unseen, power relation between the trustee and trustor, akin to a relation between a potentate and a subordinate (Krott et al., 2013).

Given that different types of people rely more either on generalised or on particularised trust (Uslaner, 2002), involved stakeholder categories (i.e. NIPF owners and forest officers) influence trust building varyingly. Firstly, diverse types of forest owners have different profiles of trustees (Hujala and Tikkanen, 2008), e.g. passive owners and conservationists are difficult to convince (Ingemarson et al., 2006). NIPF owners in Southern Sweden display diversity of values (Richnau, 2008), making the trust garnering owner-dependent. Secondly, forest officers differ in the way they approach and relate to NIPF owners, as shown in a study of forest planners (Brukas and Sallnäs, 2012). Two types of planners were identified at SFA and Södra. Non-advisory planners spend shorter times in contact with forest owners. Advisory planners, on the contrary, see their representative role as a clue to nurturing successful long-term relationships essential to the goals of their organisations: promoting state policy implementation (for the SFA), or securing timber procurement contracts (for Södra) (Brukas and Sallnäs, 2012: 610).

3. Study context

3.1 Case study area

The case study area comprises the intersection of the Helgeå River catchment area with Kronoberg County (Fig. 1) and covers 152,000 ha. It represents a forest landscape and socio-economic settings typical for Southern Sweden. Forestland dominates (80%) and consists mainly of Norway spruce (*Picea abies*). Kronoberg County was heavily affected by the storms Gudrun in 2005 and Per in 2007, giving rise to large bark-beetle attacks in the following years (Skogsstyrelsen, 2013c). Small-scale forest management prevails in the area as 80% of the forest land is owned by NIPF owners.

For an in-depth analysis of the social context and of actors' relations, a social landscape laboratory was established around the village of Hallaryd (Fig. 1). The landscape laboratory covers approximately 2,000 ha, located along the Helgeå River. Hallaryd has experienced strong outmigration during the last 60 years, resulting in decreasing population numbers and services.

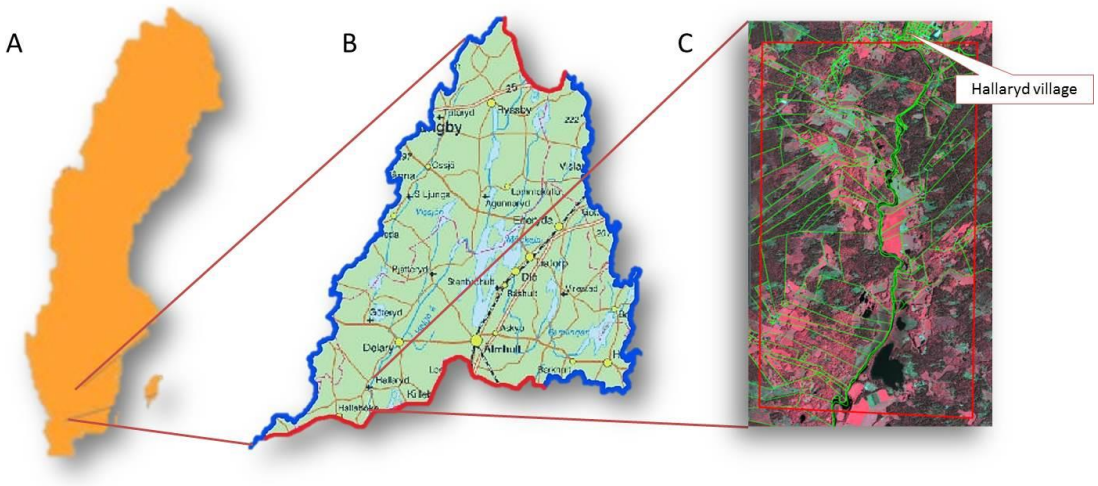

Fig. 1. Location of the study area: Sweden (A), the case study area (B) and the landscape laboratory of Hallaryd (C).

3.2 Actors in focus

This study focuses on relations between NIPF owners and key forestry actors in the case study area, namely SFA and FOA Södra. The role of SFA is to facilitate and supervise the implementation of the Swedish forest policy mainly through advice, support and information to forest owners, stakeholders and the general public (Skogsstyrelsen, 2013b). SFA is primarily present through the district office in the city of Växjö and the local office in Älmhult town. On the local level, SFA officers are in direct contact with owners through outreaching activities and provision of services such as forest management plans and consultations, e.g. regarding silvicultural and environmental measures.

Södra was founded in 1938 embracing the idea that cooperation would strengthen the position of forest owners, e.g. in relation to the forest industry (Södra, 2013a). Södra has successively expanded due to fusions with other comparable associations and is today the only FOA present in Southern Sweden (Götaland region). 51,000 members of Södra jointly own the economic association. The democratic structure is based on the principle that each member holds one vote. Strategic, long-term decisions are made by the elected representatives who form the connection between the central level and the local level. The industrial branch has likewise continued to expand and Södra is today the third largest producer of paper pulp in the world (Södra, 2013a). Södra runs twelve sawmills with a total timber processing capacity of 1.7 million m^3 (2013).

Södra's development as one of the largest actors in the forest sector plays a crucial role for trade and industrial production in the region. Södra's activities are geared by the goals to (i) secure a functioning timber market where members can sell their timber at fair prices; and (ii) improve the individual monetary value of the members' holdings by means of assistance in finances, planning and management (Berlin et al., 2006). Membership in Södra includes the possibility of dividends based on own provision of wood. Direct contact with forest owners, primarily members but also non-members, is mainly carried out by the so-called inspectors[1]. Their multifunctional role is to provide expertise and services, plan forestry operations, and to procure wood for Södra's industry.

Both actors have experienced changing operating conditions and external reformative pressures during the last two decades. The mission of SFA changed in relation to the legislative shift in 1993, when biodiversity values were equalised with production values and the nature of policy enforcement softened. Törnqvist (1995) found SFA to be the centre of the forest owners' networks, where forest officers hold a firm position as trusted advisors. Törnqvist also points at the fact that local foresters tend to migrate between employers. In year 2006 all regional forest agencies were merged into one authority, SFA. Renewal processes of FOAs in Northern Sweden have been discussed by Kronholm and Wästerlund (2013) who found discrepancies between the general member profile and their representatives in district councils of the FOA Norra Skogsägarna. Traditional values and family history within the association were prevalent among members of the district councils, excluding representation of other member groups. The study of the 'life mode' of members in the same FOA (Lidestav and Arvidsson, 2012) concluded that the arbitrary way of addressing forest owners affects communication and relations between members and their inspectors. The organisational problems addressed by these two studies highlight the contemporary challenges encountered by traditional local networks in the Swedish forest sector.

[1] Informally within Södra, the job title of "inspector" is used interchangeably with the title "inköpare" meaning [timber] procurer.

4. Materials & methods

4.1 Interview material

The empirical material was gathered by semi-structured interviews carried out during autumn 2012. Two interview guides – for owners and stakeholders respectively - included open-end and closed questions on relations, political resources, values and norms in relation to forest management as well as general technological, social and economic developments and production of ecosystem services.

The interviewed owners were selected to span a variety of NIPF owner types in terms of size and characteristics of the forest holding, vicinity of the household to the forest property, membership in FOA, age, gender and degree of management activity. A local SFA officer facilitated the first contacts with owners and subsequently snowball sampling (Goodman, 1961) was employed, leading to wider circles of participants, primarily located in and around the Hallaryd landscape laboratory. We totally conducted 12 interviews with forest owners and 3 with forest managers managing other owners' estates (Table 1). The size of holdings varied from 35 ha to 534 ha, averaging around 75 ha.

Table 1. Interviewed NIPF owners (FO) and forest managers (FM) and their characteristics; size of property, gender, age and permanent residence being either on the forest estate (resident), within the same municipality (locally resident) or in other municipality (non-resident).

Interview code	Property area class (ha)	Södra membership	(F)emale/(M)ale interviewee	Age (years)	(R)esident/(L)ocally resident/(N)on-resident
FO 101	0-49	YES	F+M	50-65	R
FO 102	0-49	YES	M	50-65	R
FO 103	100-500	NO	F+M	35-50	R
FO 104	50-99	YES	M	>65	R
FM 105	>500	YES	M	50-65	-
FO 106	>500	YES	F	>65	L
FO 107	100-500	YES	M	35-50	R
FO 108	0-49	YES	M	>65	N
FO 109	100-500	YES	F+M	>65	N
FO 110	50-99	NO	F+M	35-50	R
FO 111	50-99	NO	M	35-50	R
FM 112	>500	YES	M	50-65	-
FM 113	Unknown	-	M	35-50	-
FO 114	50-99	NO	F	>65	N
FO 115	50-99	NO	F	50-65	N

Other stakeholders were selected to represent the most important forest interests, such as governmental bodies, landowners' associations, environmental, recreational and cultural Non-Governmental Organisations (NGOs) as well as industrial enterprises. Totally 20 stakeholders were interviewed (Table 2).

Table 2. Interviewed stakeholders other than forest owners and managers.

Stakeholder interest group	Coding for quotations	Represented organisations	No of interviews
Governmental bodies	(SG)	SFA, County board, Parliament	8
Land owners' associations	(SL)	Södra, Federation of Swedish Farmers	5
Industrial enterprises	(SE)	Sydved, VIDA	2
NGOs	(SN)	Swedish Outdoor Association, Local Heritage Association, Swedish Association for Hunting and Wildlife Management, Swedish Society for Nature	5

The second author conducted all interviews, with the third author taking part in ten of them. The average length of the interviews was 3 h, varying from 1-5 h. In several cases interviews were conducted with 2-3 respondents simultaneously. Four out of fifteen owner interviews were conducted together with additional family members, having the original respondents' wish to include them due to joint management of the forest. Simultaneous interviews with owners' families gave insights into differences and similarities of decision-making in family forestry. Two out of twenty stakeholder interviews were conducted with more than one respondent. The potential bias originating from having simultaneous multiple respondents it not seen as a problem, since such occasions were few. The interview code indicates one interview and does not consider if the interview was made with more than one respondent.

Three interviews were carried out by telephone. Most interviews were recorded having the respondents' permission and typed notes were made during the conversation. All interviews were conducted in Swedish. The materials were selectively transcribed, whereupon summaries and quotes needed for the analysis were translated into English.

4.2 Data analysis

We present a study in which relationships can be adequately explored through contextualised qualitative inquiry (Patulny and Svendsen, 2007; Patulny, 2004). The analytical approach rests on the grounded theory, i.e. explanations of the social phenomena are produced inductively, grounded in empirical data[2]. Initial findings from inductive research on factors steering forest management enabled developing the hypothesis on the importance of trust, which subsequently guided the analysis in the current study. First, the interview material is scanned to reveal the nodes of the stakeholder networks, i.e. with whom are NIPF owners interacting when managing their forests. Second, we identify the most recurrent issues that influence trust within stakeholder relationships by coding encountered frequent topics and writing a codebook. Third, we analyse how the codes represented shorthand abstractions, factors or qualities of the interactions. Such analysis serves for revealing causality, e.g. explaining NIPF owners' attitudes towards different stakeholders or the causes behind (lack of) trust.

5. Results

5.1 SFA: a trustworthy relationship due to personal anchoring

NIPF owners and other stakeholders consider SFA a trustworthy and reliable actor (Table 3). NIPF owners have known SFA staff for a long time, and repeated contact has led to closeness and bonding. Personal contact is especially evident with a singular Forest Officer, (Officer A) who is mentioned by different owners detailing his personal and professional qualities. In his advice, Officer A does not focus narrowly on the timber production but holistically takes into account nature and recreational values. His interest in discussing makes people feel acknowledged and their values accepted: the rulebook is not upheld requisite; management is based on the priorities of each owner.

Through Officer A, SFA's forest planning and management is impartial. Being a neutral partner means that the management plan will not benefit a singular actor. Moreover, good knowledge, high capability and skilfulness are considered vital for trust in an organisation. Officer A takes time and initiative to motivate NIPF owners and involve them in management, operations and decision making. Time is a recurrent issue and owners appreciate time sharing, that facilitates discussions and clarifications.

SFA success is due to the local institutional anchorage and organisational decisions at the local and district level. The local extension office facilitates contacts with NIPF owners, who do not need to

[2] See (Charmaz, 2008) for a comprehensible explanation of the grounded theory and (Hennink et al. 2011) for considerations regarding methodological steps.

travel long distances for advice. In that respect, stakeholders are opposed to centralisation that would depersonalise the relationships. Besides, stability in personnel is much appreciated by the respondents, as it enhances the local knowledge of ecological features and economic dynamics; and enables building strong social networks. Prioritising contact with NIPF owners triggers positive perceptions towards SFA, resulting in the proficient outreach of the local SFA office, where the role of a single person is critical.

Table 3. Quotes referent to SFA and SFA staff.

Quote	Relevant aspect
"I got the [management] plan a long time ago. It influences management very little, but it certainly does. I discussed [the plan] with the forest planner in the woods all day. Officer A from SFA did it." FO 107	-Time in the forest.
"In comparison, all [staff] at Ljungby are new. Half the staff has changed in a few years. We don't have a general recipe; either specific strategies. I'm happy as long as I can keep the local extension. We have to think also, when we recruit, that it is most important, that newcomers stay long, not to take the wisest new professional, who's going to soon disappear." SG 219	-Keeping local extension. -Stability in personnel.
"NS [Nature conservation with management] stands will possibly come; it's the initiative of Officer A from SFA. SFA has always made the management plans despite we are members in Södra. SFA is impartial. Södra would make it [the plan] more to their advantage. I'm very grateful for SFA being a neutral party." FO 108	-Initiative. -Impartiality.
"I think if it [SFA] becomes more centralized relationship will get worse. If all were to move to Växjö for example. The more controlled of bureaucracy, the more difficult to achieve the results. The best relationship arises in the personal meeting. Most people don't read. The personal meeting is needed to achieve the results. You must have people with you, so they can view and point at, and then they can learn. " SG 202	-Opposition to centralisation. -Importance of contact.

5.2 Södra: industrial interests prevail

Södra's priorities are considered to be geared towards the industry and not the owners. The industrial features include being centralised; being powerful; lacking stability in personnel; outsourcing; prioritising time efficiency over counselling; and prioritising the bulk production. These in turn generate such feelings as lacking impartiality and being distant to the forest owners.

Forest operations in Southern Sweden are being carried out mainly by entrepreneurs. When Södra engages entrepreneurs, bad communication and misunderstandings sometimes occurs, making NIPF owners feel ignored. Södra's perceived distance to the NIPF owners can be due to the centralised structure of the association and alleged incompetence of inspectors; which also results in a longer response time.

"We are members of Södra, but we deliver nothing. It [Södra] has bad inspectors. It was too cumbersome, so centrally conducted. (…) I asked [to sell] about 1000 m^3 of pulpwood [from thinning], but I got no response for a long time. He replied that we [then] needed 400 m^3 of timber logs on top. But I don't do any final fellings. The industry cannot control my management! But it does not matter, because we [still] get dividends [from Södra]." FO 109

FO 109 relationship with Södra shows the dual nature of membership. Members are not obligated to sell timber exclusively to the association; but it is ideally what they should do. However, local contexts are far more complex, producing different behaviours of NIPF owners. FO 109 continues to be a

member, regardless of having a deteriorated relationship. Membership is kept due to economic benefits: dividends resulting from Södra's industrial branch.

Respondents think that Södra's personnel are well experienced, skilled and capable of doing their jobs with good intentions that will also benefit the owners. Yet, there are other factors influencing the interactions negatively.

"Many inspectors, buyers have a personal character and relationship with the suppliers or owners, or members as Södra calls them. (…) There are inspectors in Södra that give management for free; they manage members' forests as if they were their own. (…) . But they get into conflict when their bosses insist: '(…) It's crap prices now, don't waste your time running on all regeneration [of stands], but you should buy wood!'. Silviculture is hanging somewhere there in between, Södra, Sydved, everyone says they are happy to help with that, but it is not their main occupation." FM 113

Treating the holdings as their own reflects the importance that some inspectors give to active forest management based on the objectives and values of NIPF owners. Counselling must be an important mission of Södra as a whole, also manifested in inspector's good will towards owners. Unfortunately, such situation is not always prevalent. Coupled with organisational priorities, market dynamics push the inspectors to focus on timber buying, setting aside the advising duties. In other words, counselling on silvicultural measures, e.g. forest regeneration, becomes a waste of time. Forest management is neglected due to the industrial needs for bulk production. Lack of time affects the whole forest buying chain resulting in mismanagement.

"You fool yourself when you squeeze costs. Buyers have to buy more and take in more cubic meters per person employed, they don't have time to go into the woods and plan, and then this presses the felling costs of contractors, then they don't have time to leave the machines, and then there will be no one [going into forest]. Someone in the chain has to leave the machine and really go and look what's in the trees that we harvest (…) that's where the shortcomings [come from]." SG 220

Time spent out in the forest is considered as a key for successful counselling. Being outside augments the possibilities of the owners to better grasp advices, since they learn by doing and observing in the field.

"The buyers don't have time. Without being out in the forest, it is difficult, without meeting the person who owns or manages the forest; it's difficult to influence the state of the forest. One can meet the owner at his home, but being out in nature is required to succeed, for the owner to decide, to change the owner's behaviour. It [counselling] doesn't work watching at a power point." SG 220

Although the issues of time and communication are significant, perceived intentions are also a limiting factor for trust. FO 108 implies that the industry needs to be well functioning first and that owners' objectives are not primary. As a result, there is an extractive approach to the pulpwood.

"When Södra or Sydved come, they make sure of their own interests. I've often taken up with Södra that they don't care about the owners' best, they care about the industry. Results are made in the industry. They cut down more pulpwood than what they should and less logs." FO 108

Some owners can feel disempowered, as if they cannot influence the large association. The expansion of Södra and the lack of stability in the contact over time are perceived as hinders for established lasting reciprocal relations with owners.

I have no major trust in the board of trustees; they have no contact with the owners [and] don't know who they [the owners] are." FO 104

5.3 Södra: a partner during calamities

The harsh economic effects of the storm Gudrun is fresh in the memory of many respondents, as are responsive actions taken by different stakeholders upon the emergency. Södra took care of owners' vulnerabilities and did not take economic advantage of the situation. It is estimated that ~70 million m^3 of timber were affected by Gudrun (Skogsstyrelsen, 2006).In addition, if different stakeholders had not stepped in on time, the already immense losses would have become even larger.

"[Södra] behaved so well during Gudrun [the storm in 2005], as it went in and said that everyone [the owners] would have the same opportunities to get the wood taken care of. One price regardless of when they [Södra's people] came and took it. That's why you should be a member." FO 104

Södra's fairness to its members was proved after the natural catastrophe. The fact of giving the same price to everybody is a strong message of equality especially towards vulnerable owners. Thus, the reason for being a member is linked with the fairness and protection that Södra offers to a NIPF owner. In addition to calamities, economic vulnerability relates to the small scale of estates and the need of machinery. The annual profit sharing of Södra and good prices for timber are mentioned as reasons to be part of the association. Membership is essential if having small amount of forest and sharing cooperative values.

"I'm a member of the cooperative [Södra] because I have so little forest. If I had more, I would not have to [be a member] (…). Ordinary people need to be in unions and cooperatives. [You need to see] how to do the best economical management." FO 108

6. Discussion

6.1 Trusting organisations, personnel or both

Creating trust within local communities is a hard endeavour: differences in values between owners and stakeholders or top-down reforms hamper trust building for institutions (Nysten-Haarala, 2013). Officer A had been working in the area for a long time, creating personal relationships and building trust that can be passed through generations (Hujala and Tikkanen, 2008). The high trust towards Officer A raises the question about the importance of a single person versus the adopted organisational strategies of SFA. Previous research has found SFA to be the centre of most forest owners' networks, where forest officers are highly appreciated for their neutrality on the timber market, the professional knowledge and their capacity to accord owners' forest management with societal demands (Törnqvist 1995). Schlüter and Koch found that frequent contact creates a "*web of trust, where it is hard to differentiate between a person and the system/organisation*" (2009: 390). Furthermore, in order to transfer trust from organisation to individuals and vice versa trustworthy individuals must be backed up by the system (Nooteboom and Six, 2003). SFA local office serving Hallaryd meets these conditions: the local office's anchoring; long permanence of personnel, enhancing local knowledge and facilitating contact; a client-based approach; and fitting personal qualities of the SFA local forest officer. Similarly to (Kulyasova, 2013) trust building mechanisms in our case included information, interaction and the possibility for owners to influence the management. While the revealed local constellation of trust cannot be simply extrapolated to other localities, SFA could use the Älmhult office as a role model and an informed argument against centralisation of SFA functions.

Our as well as Törnqvist (1995) it is a necessity for any forestry organisation to have local personnel with contextualised knowledge about the forest and the forest owners' situations in order to gain trust. But a warning is at place here. Basing trustful relationships on certain individual(s) only, entail risks for future relationships due to personnel turnover. An excessive dependence on bonding social capital could therefore be negative, as these personal bonds disappear, trust within the community will decrease (Putnam, 1993). Hence more bridging capital could represent a more sustainable alternative, increasing long-lasting institutional trust that is less dependent on certain individuals.

6.2 [Mis]trusting [un]shared interests or [lack of] personal contact

Several benefits from NIPF ownership are deemed important, e.g. recreational activities and carrying on with family and forestry traditions (Hugosson and Ingemarson, 2004; Kindstrand et al., 2008). Balancing that variety of objectives and interests with the industrial needs for raw material is a difficult task for FOAs (Lidestav and Arvidsson, 2012). Yet, power structures embedded in the inspector – owner relationship, might explain why trust is maintained even when advice is focused on the association's industrial needs. Krott et al. (2013) consider that use of dominant information (i.e. altering behaviour by unverified information) as a subtle power relationship, where trust is related to the subordination of the trustor. Still, the mismatch between interests could lead to the loss of trust, resulting in difficulties to get new members and secure timber procurement (Berlin et al., 2006). While this study provides a local piece of evidence for increasing distance between Södra and NIPFs, centralisation of Södra may play out differently in different locations. Törnqvist (1995) stresses local tradition of association or company orientation as one factor influencing the social network situation locally.

Membership adds another dimension to the issue of trust, rendering discrepancies between individual NIPF interests. The evidence presents a lack of trust towards Södra both from members and non-members though the former category of NIPFs can take advantage of Södra's industrial orientation in the form of dividends. Looking at the expressed objectives of Södra, the economic benefit from members' forest management is the primary mission. The democratic steering of the association should further guarantee that members' interests are secured. In contrast, our results show dissatisfaction with the offered services. This raises the question whether forest inspectors are actually oriented towards consumer satisfaction. Lidestav and Arvidsson (2012) concluded in the case of a similar FOA that forest owners are not as much customers as they are members, implying greater need for respect of their independent ownership.

Similar to our investigation, Kronholm and Wästerlund (2013) found that inspectors are the most important people in the relationship between owners and FOA. Personal bonding in Kronholm and Wästerlund's study were so strong that owners would even follow the inspector if she/he would decide to change organisation. Yet, bonding in Hallaryd plays out differently as the dearth of time shared by forest inspectors restrains their relationships. Lack of time creates communicative distortions causing tension and incomprehension[3] (Hujala and Tikkanen, 2008). Such is the case when forest planners avoid clarifying owners´ objectives due to "*time pressure and/or the owners' inability to express*" them (Brukas and Sallnäs, 2012:609). Moreover, as "*repeated interaction with people, to whom all sorts of questions can be asked, is crucial*" (Schlüter and Koch, 2009: 390), finding time will help building personal and organisational trust. Finally, avoiding turnover of inspectors would make the building of relationships much easier (Kronholm and Wästerlund, 2013). Stability of personnel working locally is highly appreciated by owners and can create the appropriate environment for building up the social capital.

On the other hand, Södra's communication strategies could be deemed cutting edge. Increasing cohorts of mostly urban forest owners grown up in the IT era would call for different types of communication. Since rural and urban owners utilise trust for different purposes (Hujala and Tikkanen, 2008), new types of NIPF owners will have different sets of values, interest and objectives. As a result, trust building might depend more on experiences of positive outcomes than on frequent and time-consuming face-to-face interaction. Accordingly, future owners might prefer using IT communications (e.g. mobile and tablet applications, email and social networks feedback) over personal meetings and long walks through the forest. In such scenario, the present critique can be considered backward thinking, instead of modern. Nevertheless, while dealing with uncertainty, using both communication approaches with owners and not putting all the eggs in one basket would be safer. In Södra's case,

[3] Additionally and in contrast to SFA, Södra handles the contracting of silvicultural operations, which increases the risk of miscommunication and can add to the distancing between Södra and owners.

having contextualised member communication (i.e. applying new and old types of communication depending on the owner type) could be a promising strategy for building the much-needed trust.

6.3 Trust and calamities

The relationship between trust and the incident of storm Gudrun is present in a handful of other studies. Ingemarson et al. (2007) found that forestry stakeholders behaved properly after the storm, increasing NIPF owners' trust, particularly towards FOAs. Handling of all the fallen timber functioned much better than anticipated, mostly due to NIPF owners' information exchange and contact networks with authorities (Svensson et al., 2011). Additionally, the assumption of responsibility by forest officers brought great appreciation by the NIPF owners (Svensson et al., 2011). Klasson (2005) found that stressful moments after the storm caused anger but also led to bettering of relationships between NIPF owners and other actors such as entrepreneurs and forest companies.

Södra proved that egalitarianism represents powerful means for achieving a positive corporative image that garners trust. Its website states: "*Södra quickly established principles of equal payments. Secured the support from the community, reinforced heavily the organisation's resources, timber terminals were established and the own industry was used at maximum capacity for the storm felled timber. Member could feel safe*" (Södra, 2013b; own translation). Considering the high susceptibility of Norway spruce monocultures to storms (Schlyter et al., 2006) and the increasing trend of forest damage (Nilsson, 2008); forestry organisations' behaviour after calamities can improve or erode the relationships.

7. Conclusions

By investigating qualities of social capital through contextualised qualitative inquiry (Patulny and Svendsen, 2007; Patulny, 2004) our paper complements previous studies on social capital in forestry, increasing the understanding of personal relationships underlying small-scale forestry. Local organisational anchorage, personalised services, long-term commitment, and respect to the owners' priorities are the defining ingredients for developing trustful relationships in small-scale forest management. The local SFA office has been successful in creating trustworthy relationships in terms of fulfilling the conditions of trust as defined by Nooteboom and Six (2003). Respondents perceived high competence in SFA's communications and knowledge. SFA does not behave opportunistically and its intentions are characterised by dedication and goodwill.

Södra is successful in the highly globalised and dynamic market of timber and pulp. Nevertheless, fruitful trust in institutions is dependent on several factors: fundamental values, design, activities and interpersonal trust (Tulaeva, 2013), hence other practical aspects (e.g. time expenditure and local anchorage) should be taken into consideration for trust building. Södra's behaviour after the storms Gudrun and Per is a good example to follow in case of future calamities, enabling to maintain or even augment the social capital among the key stakeholders.

This case study is an empirical confirmation of the success brought about by a combination of trustful personalised relationships and strong local anchoring of SFA. Bonding social capital and particularised trust is the key. Promoted on a larger scale, the revealed Älmhult example would facilitate the implementation of Swedish forest policy while maintaining positive cooperative spirit between NIPF owners and the governmental agency. This finding does not exclude the role of bridging social capital and the importance of generalised trust by forest owners towards public authorities or cooperative structures. Achieving a good balance between bonding and bridging social capital is necessary from a policy perspective (Patulny & Svendsen, 2007). A comparison of the presented findings with studies on bridging social capital could fittingly serve the purpose.

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