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Policy impacts on social innovation in forestry and back: Institutional change as a driver and outcome

Alice Ludvig^{a,*}, Simo Sarkki^b, Gerhard Weiss^a, Ivana Živojinović^a

^a University of Natural Resources and Life Sciences Vienna, BOKU, Institute of Forest, Environmental and Natural Resource Policy, European Forest Institute, Forest Policy Research Network, Feistmantelstr. 4, 1180 Vienna, Austria

^b University of Oulu, Cultural Anthropology, PO BOX 1000, 90014 Oulu, Finland

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ABSTRACT

The forest sector in various ways fosters employment, community development and prevents depopulation in marginalized rural areas. Since the economic recession in Europe from 2009, there has been a notable change regarding the roles that public and private actors play in tackling current social and economic problems. The term Social Innovation (SI) came up to denote the overcoming of complex societal challenges with an increase of engagement of civil society (private actors). So far, collective values of ecosystem services, health and recreational benefits have been researched extensively. But the role of policies in socially innovative forest sector activities for the enhancement of collective action and collective benefits still leaves room for research. This article asks how relevant were policies as drivers of institutional change for forestry related examples of social innovation? The question is examined across different European countries with a focus on the policies identified as relevant for these innovations by a panel of experts and researchers. We used selected case studies in combination with literature as well as policy document analysis and complementary policy expert interviews. We focus on the policies that have affected these activities and investigate in detail on their relevance for the outcome (the SI). Our findings indicate that there is more than one direction of policies impacting upon the SI initiatives, because vice-versa, there is also SI impacting on the policies. Both directions lead to institutional change in the final outcomes, either in the policy design (bottom-up influence) or in the social innovation (ultimately changes in the actors-institutions relations and the creation of new institutions with the SI). Policies can be either drivers of SI or they can be outcome when new policies were created because of the transformative effects of SI. Furthermore, we detect policies that turn out “neutral” towards social innovation at the moment but with potential effects in future.

1. Introduction

Over the last decade, the term social innovation (SI) has received increasing attention to address complex global social and economic problems with collective action and engagement of civil society actors (Bock, 2012; Cajasanta, 2014; European Commission, 2013; European Union, 2014; Grimm et al., 2013; Hämäläinen and Heiskala, 2007; Howaldt and Knopp, 2012; Jacobi et al., 2017; Moolaert et al., 2017; Murray et al., 2010; Phills et al., 2008; Pol and Ville, 2009; Sinclair and Baglioni, 2014). Under consideration of the manifold approaches, the SIMRA project has developed the following definition of SI: “SI is the reconfiguring of social practices, in response to societal challenges, which seeks to enhance outcomes on societal well-being and

necessarily includes the engagement of civil society actors.” (Polman et al., 2017, p. 3). Meanwhile, SI has become a topic in forestry research (Górriz-Mifsud et al., 2019; Hewitt et al., 2019; Nijnik et al., 2018; Ludvig et al., 2018a, 2018b, 2018c; Melnykovich et al., 2018; Rogelja et al., 2018; Sarkki et al., 2019), dealing with its contributions towards local and regional development, outlining good practice examples from forestry and demonstrating the advantages that SI has for a service-based forest sector. Others have identified mechanisms enabling efforts for SI in forest dependent communities across Europe and Mediterranean countries (Klůvanková et al., 2018) or developed evaluation methods to assess SI in the forestry domain (Secco et al., 2019). In terms of institutional impacts in forestry, it has been emphasised for Ukrainian forestry that established rules often cannot work for enhancement of

* Corresponding author.

E-mail address: alice.ludvig@boku.ac.at (A. Ludvig).

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human dimensions and consideration of societal values (Nijnik and Oskam, 2004); and that in Ukraine, the strong reliance on government powers misses out local institutions and stakeholders (Soloviy et al., 2017). The overall purpose of the article is to investigate how policies can impact social innovation with empirical examples from Europe. Within the sphere of innovation research (Edquist, 1997; Weiss et al., 2010; Weiss et al., 2011) this paper wants to add policy relevant insights related to the specific type of social innovation. First, it must be considered, that SI is cross-cutting and goes beyond mere social entrepreneurship and the related policies (Rogelja et al., 2018; Richter et al., 2019). SI engages a broad range of actors and includes outcomes that go beyond the focus on societal vulnerable groups and charity activities. Second, from a policy perspective leaning on the definition of SI (see above), so far three groups of general policies for SI have been identified (Ludvig et al., 2018b): (i) policies that address inclusion of vulnerable groups, (ii) policies that address regional and rural development, (iii) policies that address participation and collective action of civil society. Thus far, engagement of civil society is identified as necessary prerequisite for SI. This inclusion and participation in collective decision making and action has subsequent governance implications as it leads to novel actors' constellations and formations (Feiock, 2005), but might also lead to new governance and policy arrangements. Hence, we deal with SI relevant policies by taking an institutional change perspective: How do specific policies impact on SI? What are their outcomes and how do they affect the nature of SI in forestry? For doing this we use selected case study examples and policy examples related to SI (Ludvig et al., 2018a). The policy relations in the examples were identified and analysed by using policy expert interviews in combination with literature and policy document analysis on SI in marginalized rural areas.

The subsequent sections will first, outline the conceptual approach on the relationship between institutions and SI. Second, present our methods and data sets, third present the results on the influence of policies on social innovation and forestry, in order to further discuss these results with respect to their policy impacts. Our findings draw attention to the insights of different policy impact directions (such as bottom-up or top-down) and the specific needs to restructure relations between government and the engaged civil society actors.

2. Conceptual background: the role of institutions

Institutional arrangements, understood as rules and norms as well as actors and also groups of actors (Scharpf, 1997), have been identified for influencing action situations and their ecological-economic outcomes (Ostrom, 2005, 2011). For this article, we focus on policies and political frameworks that can provide enabling environments and create room for social innovators to generate their ideas (Lukesch et al., 2020). From a systemic perspective, institutional change embraces new or adaptations of existing organisations, institutional arrangements, new or significantly modified rules, regulations and policies, as well as new or significantly modified procedures to implement such policies. We conceptualise Policy impact as impacts by formal institutions and frameworks (e.g. laws, regulations, programmes and formulated policies, Rhodes et al., 2008) that are designed to implement political goals and programmes and are subject to change. This conceptualisation shall enhance our understanding of the focus of this paper: the role that institutions (policies) can play in shaping social innovation.

In the forest sector, innovation processes are complex and evidence suggests that little systematic innovation development happens there, at least at the company level (Hansen et al., 2014). Moreover, experience-based insights into management and governance processes for innovation are still sparse in the forestry literature (Hansen and Breede, 2016). Although we do not deal here with innovation management at company level, case-based research has been presented as a methodological solution to better understand the ways in terms of the reasons which led to innovation in forestry (Ludvig et al., 2016), but also to understand the institutional mechanisms that influence social innovation initiatives

(Klůvanková et al., 2018, Appendix B). Our conceptual background helps to investigate the role that formal institutions (policies) and changes in actor constellations perform in the development of SI in forestry. Inclusion of civil society leads to institutional change as it implies reorganisation of societal actors and their relationships (Rogelja et al., 2020, forthcoming). This relates social innovation to "governance", the popular term that emerged in the 1990s and we refer to a non-hierarchical process of governing, where especially non-state, private corporate and civil society actors participate and negotiate the formulation of public policy (Ostrom, 1990; Mayntz and Scharpf, 1995; Mayntz, 1998; Rhodes, 1997; Rhodes et al., 2008). Such cooperation between various actors takes place in different forms within mixed networks of public and private actors (Mayntz, 2003). Likewise, social innovation initiatives shall find mutual and innovative solutions in actors' constellations to solve various pressing social, ecological and economic problems (Sinclair and Baglioni, 2014; Mulgan, 2006; Górriz-Mifsud et al., 2018). Mutual arrangements and collective action in forestry, e.g. community forestry (Ludvig et al., 2018c) can result in institutional change such as newly developed political rules or policy engagement (Wilkes-Allemann and Ludvig, 2019). The emphasis on changes in social practices and relationships is articulated in both the social innovation literature (reconfiguration of social practices) as well as in governance literature. Hitting into a similar vein, also the scholarly literature on institutional innovations (Edquist and Johnson, 1997; Ruttan, 2006) considers changes in societal practices as important sources of institutional change and policy formulation. For this research, social innovation is happening when new institutional arrangements are created in response to societal challenges, with inclusion of the local population and the goal of societal well-being. When the innovation is not merely business driven, when multiple actors are involved in the creation of the innovation and are also affected by its outcome, the institutional innovation also fulfils the definition of being a social innovation.

3. Methods and data

In order to investigate institutional change, some authors have earlier applied large scale QCA-method analysis in interviews with forestry actors in Ukraine (Nijnik and Oskam, 2004). Others have used scenario models across Europe in order to assess policy impacts on sustainability in marginalized mountain areas (Sarkki et al., 2016). The methods applied for this research are more modestly adapted to the resources that were available: we used literature and policy document analysis as well as policy expert interviews conducted in the SIMRA project (Ludvig et al., 2017; Ludvig et al., 2018a). For a list of experts and the interview questions see Annex 1 to this article. We identified 6 forestry-related case examples that have participatory elements in their innovation process and setting (Table 1). It must be kept in mind that the SI activities are cross-sectoral, which means that all of them have some forestry elements in them, e.g. they take place in forests and involve forest owners (Austrian Nature Park Specialities or Mountain bike trails). All of these selected cases are in different ways related to forestry since they either deal with more specific forestry activities or other uses. In the Finnish case this means the nuclear plant has changed the forestry

Table 1
Cases used for analysis of policy impacts in this paper.

| # | Cases | Principal sectors |
|---|--|--------------------------------|
| 1 | Self-organised civil and environmental rights movement in Finland (FI) | Other/Environment |
| 2 | Greencare Forest (AT) | Forestry |
| 3 | Mountain bike trails in forests (CH) | Forestry |
| 4 | Welsh community forestry centers (Wales, UK) | Forestry |
| 5 | Social Biomass Plants (Slovenia, AT) | Forestry |
| 6 | Austrian Nature Park Specialities (AT) | Tourism/Nature/ Agriculture |

use to other uses and the SI initiative aims to keep the forest and nature and combat societal dysfunction in the area. The cases served as in-depth examples for our examination of the directions for policy impact and institutional change in social innovation. The pattern identified in these cases were used for the identification of policies that impact SI and the grade of policy support.¹

For the identification of policies, we focused on the cases from forestry and then on those with specific policy features as outlined in the SIMRA Report on the selection of policy cases (Valero et al., 2017), mainly on legal, monetary or informational support and influence by policies. Our analysis of policy impacts is based on a set of parameters for policies of relevance for social innovation: these parameters are distinguishing between (i) policies that address inclusion of vulnerable groups, (ii) policies that address regional and rural development, (iii) policies that address participation and collective action of civil society (Ludvig et al., 2018b), these results are presented in section 4.

3.1. Policy document and literature analysis

In the SIMRA project we have validated and reported on the policies that influence SI (Ludvig et al., 2017). Complementary to the case selection outlined above, we searched for policy documents foremost on the European commission's webpages and for literature in other internet sites and data bases such Scopus, ISI web of science, Google scholar as well as institutional databases regarding policy programmes (EFI –The European Forest Institute, EU – the European Commission, FAO – The Food and Agricultural Organization of the United Nations, UNECE – The United Nations Economic Commission for Europe). We identified the ones that deal with social innovation following the principle of salience of topics: social innovation, innovation support, institutional change, political framework, innovation systems as well as specific aspects of social innovation like social inclusion, participation, social change, social policy, employment, rural problems and marginalisation. This research resulted in 15 most relevant documents. In parallel we started interviewing key policy experts that named us other relevant documents for our search. This way, 20 policy programmes, documents and instruments at regional, national and the European level were collected.

3.2. Expert interviews

In total we conducted 6 qualitative semi-structured face-to-face expert interviews with international policy experts and scientists (see Annex 1 to this article).² These experts are all active in the field of forestry, rural development and innovation in an EU-context, either as innovation programme evaluators themselves, as high level policy experts or scientific policy researchers. The method followed the principles of qualitative interview guides with open questions and open answers (Patton, 2002; Denzin and Lincoln, 2017). The questions were related to understanding of implementation of regulations, enabling and constraining factors for SI, the role of specific organisations in the policy field and future transformations of SI. The interviews took approximately one hour, were all recorded, and subsequently transcribed (Brink, 1993; Flick, 2014; Mayring, 2000). The inquiry focused on the nature of policy impacts on specific cases and SI for combating regional

marginalisation (see main questions outlined in Annex 1; Bauer and Gaskell, 2000). Only through these expert interviews we could verify the policy documents from our document analysis (see 3.1. above) and concretised the policies of Greencare, Social Forestry, Social farming, European Innovation Partnerships (EIP) and national and local regional and rural development programmes like LEADER³ as most prevalent policies with (potential) impact. In concrete terms, they all were identified through the literature and document research and mentioned most often in the interviews. For the research, they rank as examples for directly impacting public policy programmes on SI. These policies contributed to our methodological framework for policy impacts on the cases selected, the results on impacts are presented in Table 2. As common characteristics of the policies we identified that most of them address the inclusion of vulnerable groups, in combination with regional and rural development and the participation and collective action of civil society. Their difference in degrees of relevance and impact forms part of the results of our research (all outlined in Table 2). This results in our main methodological assumption for this article, namely that different degrees of identified policy impact will also lead to different degrees for institutional change.

4. Results: institutional change, policy influence and social innovation

As outlined in the theoretical section, institutional change is a collective process in which rules and opinions change with the involvement of individuals and organisations that engage in the process. The change concerns ideas, rules and practices that are shifting, either rapidly or slowly. In this research, several specific case examples were identified, that have strong institutional change features with involvement of a big number of civil society actors and societal impacts of the SI (Ludvig et al., 2018a and Table 1). In our results we identified strong actors' engagement in their SI initiatives, institutionalisation over time as well as several points of contact with policies:

In the first one, self-organised civil and environmental rights movements have opposed in particular the sixth nuclear power plant planned to be built on coastal land with high environmental values in Pyhäjoki Finland. After long and complex planning processes, the Finnish Parliament made supplementary Decision-In-Principle (2014) for allowing the nuclear power project to proceed conditional to security and safety permits. Until 2016 there were several protest activities against this decision taking place in the area. At the end of 2017, Noidanlukko cooperative was established aiming to oppose the nuclear power project by combining art, activism, science and public dialogue. The Noidanlukko is a case of an initiative, which has been motivated by its aim to create institutional change without receiving policy support, expect some support from a German NGO by which it purchased on site real-estate for establishing the Information Centre Hanhikivi. Due to lack of financial or policy support, a small number of motivated voluntary actors, and that the major policy decisions had been made before the Noidanlukko was established, the impacts of the cooperative on policy have been modest. One of its key values, however, is the attempt to keep the alternative views on nuclear power on policy agendas and to keep critical public discussions alive.

¹ We want to thank especially the following colleagues for the selection of cases and the provision of abstracts for the cases: Mountain bike trail negotiations in Swiss forests (Jerylee Wilkes-Allemann, ETH Zürich, Switzerland and Bern University of Applied Sciences (BFH), Zollikofen, Switzerland), Austrian Nature Park Specialities (Marelli Assamer-Handler, ÖAR GmbH, Graz, Austria), Welsh community forestry initiatives (Maria Wilding, Adam Thorogood, Llais y Goedwig, Wales, United Kingdom).

² According to the Horizon 2020 ethical clearance procedures these were all strictly anonymized. See Annex 1 on experts as well as on guiding principles and questions for interviews in annex, table I and table ii.

³ LEADER is an EU policy that was initiated in the 1990s and means, "Links between activities for the development of rural economy". It shall engage resources of people and bodies as development actors rather than beneficiaries, empowering them to contribute to the future development of their rural areas by forming area based Local Action Group (LAG) partnerships between the public, private and civil sectors. In the current period (2013–2020) the LEADER method has been extended under the broader term Community-Led Local Development (CLLD) and is now fundable under all Funds of the EU Cohesion policy. (http://enrd.ec.europa.eu/leader-clld_en, last access 2019-07-11)

The next one, *Greencare Forest*, is a nationwide Austrian Policy Programme since 2015 which is dealing with health care, tourism and pedagogics in Austrian forests. Many of these activities have existed long before in Austria, the programme is new and aims to support under the new umbrella initiative. It was initiated by the Austrian Federal ministry and includes the different activities. At first glance, the Austrian Greencare Forest policy program from 2015 could be classified as a top-down program. However, many of the specific activities in forests that fall under this label have long been carried out independently of political support (Elsen and Finuola, 2013; Stadler et al., 2020).

The *Mountain bike trails in Switzerland* pose big challenges to forest owners due to liability costs and damage to the forests. In common efforts it was possible to carry out large stakeholder negotiations processes by initiative of bikers and municipalities for legalisation of some trails. Policy support came in in later stages of these the complex interactions and negotiations. Financial support from public policies for the trails e.g. came for the ones around the capital city of Zurich.

A community forestry enterprises embrace all type of social, environmental or other non-profit distributing organisations that increasingly acquire forest for special management objectives that often are also in the public interest. In the first place they are benefiting from the legislative changes in Land reform (2006) which made it possible to purchase land for community development. Some small monetary policy support came for some of the *Welsh community forestry initiatives* from small LEADER funding. As SI they managing local woodlands and environmental projects with the aim to revitalise the region and support vulnerable groups under the focus of sustainability.

The case of *two social biomass plants (Sobio)* on each side of the Austrian-Slovenian border was fully financed between 2007 and 2013 by the EU program for territorial employment pacts (TEP) promoting regional development. They aim to enhance the inclusion of socially vulnerable groups into the labour market with forest-based businesses.

Finally, the *Austrian Nature Park Specialities Initiative*, it stands out as example for the re-organization of consumer-producer relationships in a collective effort of combining local farming with sustainable tourism. For the period of two years they have also received some LEADER funding.

The above mentioned examples illustrate the diverse relations between the examples and their policy impacts. Whilst the social biomass plants have been founded directly on grounds of an EU-project fund, the Welsh community forestry centres were able to be developed further because of a change in the general law on land ownership and received some (limited) funds. All other initiatives have existed already before and at some later stage received policy support. The following table (Table 2) outlines these policies divided by sector and programme, which impact on SI with example of the whole range of cases used for this research (see Table 1 above).

Table 2 presents our results on the most influential policies on SI identified. As concerns the policies relevance of them for support and impact on the examples, it is in most cases “none” to “moderate” with potentials for more support. The cases relation to policies and the assessment of their relevance and support results in three ways of relationship between the policy and the SI:

- 1) There are the cases where policies have impact on the SI (top-down): all cases with funding from public policy programmes, such as LEADER; INTERREG; TEP or municipality support. Furthermore, there are general policy programme such as the UK land reform (2006), not directly intended for community forestry but with impacts on the purchase modes for land. This in turn enhanced community forestry activities like in Wales. Also all kinds of regional or rural development programmes will impact on SI as they can prepare the ground for SI activities.
- 2.) In others, like Greencare forest in Austria or social farming activities across Europe (Di Iacovo, and O'Connor, D., 2009) have impact on policies (bottom-up): In this type of relationship the SI

Table 2

Policy impact on Social Innovation case examples, relevance of policy support.

| Policy sectors and programmes | Examples on SI Case level | Relevance of policy support ^a | Policy support in the cases |
|--|---|--|---|
| LEADER/CLLD | Welsh Community Forestry centers (UK) | Moderate (+) | Small amount of LEADER funding obtained for building the Community Centre House |
| | Nature Park Specialities (AT) | | LEADER funding for the period 2004–2006 |
| Green care | “Green Care Forest” (Austrian Policy programme since 2015, fostering Health and social forestry) | Moderate (+) | Austrian Policy Programme since 2015 |
| Civil society and third sector related | Mountain bike trails in forests(CH) | Moderate (+) | Voluntary co-operation for joint goals with sometimes municipal involvement and moderate financial policy support (Willkes-Allemann and Wilkes-Allemann and Ludvig, 2019) |
| | Welsh community forestry initiatives (Wales, UK) | | Welsh community forestry initiatives: Community engagement in woodland management with social, cultural and economic benefits, some Grant funding, some LEADER support (Ludvig et al., 2018c) |
| Social policies (Welfare, Vulnerable Groups) | Social Biomass Plants | High (++) | Two social biomass plants located in Austria and Slovenia policy support as fully financed by the TEP programme (EUs Territorial Employment Pacts Programme). |
| Environmental protection | Noidanlukko cooperative aiming to oppose nuclear power by integrating art, science, activism and public dialogue (FI) | None (–) | No policy support, some very small support by a German NGO (Non-Governmental Organization). |

^a ranking: None (–), Moderate (+), High (++)

impacts on policies. New regulations and support mechanisms were developed after activities, projects and initiatives have started and carried out. Thus, policies reacted to SI. The policy impact direction goes “backwards” in a repercussive way.

- 3.) Some cases have no support (none), or “not yet”, which could be the case because they have relatively recently emerged and are in the starting phase but without public support. In the Finnish case, perceived top-down policies motivate bottom-up activities. Creating wider institutional change is the motivation for self-organizing at grassroots level. Therefore, the policy failure or voids in institutional system (Zivojinovic et al., 2019) motivates SI at local level and drives for policy change.

More in detail, the relationship between the SI case and policies turns

out differentiated: The *Welsh community forestry initiatives* (UK) (Ludvig et al., 2018c) are both participatory forestry projects from which one has obtained some small amount of LEADER funding (top-down) and both were only possible to inaugurate after the UK Land reform took place in 2006 and enabled such collective purchase of community land. The *Austrian policy programme Greencare forest* is a governmental policy programme, since 2015 and at first sight would be classified as top-down, but the specific activities in forests developed under this label e.g. related training schemes etc., have already existed before and some of them were thoroughly run by civil society actors. From this perspective, it was the civil society engagement that has influenced the policy formulation (bottom-up). The case of two *social Biomass plants (Sobio)* at the Austrian/Slovenian border were fully funded by the EU's Territorial Employment Pacts Programme (TEP) between 2007 and 2013 (top-down) and their common management system and maintenance is now provided by other regional development funding. In terms of institutional change, it is the social innovation that has developed new ideas with involvement of collective actors, exploring new grounds to be supported by policies. This results in a forward and backward relationship: The SI stimulates in some examples new regulations and support mechanisms. The Finnish example stands out for its resistance against the decisions from existing formal institutions (the building of the nuclear power plant). The self-organised grassroots level movement is motivated by strong environmental and social concerns and aims to change the formal institutions by triggering the local resistance dynamics in informal and interactive ways.

5. Discussion and conclusion

In our research institutional change served as a driver for policy support; as most often it is the collective engagement of civil society actors and groups that formed socially innovative projects which in later stages drives and stimulates some policy support. We have also shown that this happens to greater or lesser extent. Institutional change can become an outcome of the processes of social innovation configurations: the initiatives lead to novel actors' constellations, formations and new institutional settings (formal rules and policies). Our main focus on policies above has as well outlined the impacts of formal institutions vice-versa in the other direction: hence rules, regulations and monetary policy instruments do impact on SI. Regarding our initial research question, how do policies impact on SI, our results show that they have influence in three ways:

- i) *The implication and impact that a policy has on the Social Innovation.* As such we identified monetary and other support from a policy programme for SI initiatives; we called this as merely "top-down" in direction.
- ii) *Vice-versa, the impact that a Social Innovation can have on policies.* As outlined above, as a "driver for policy support". This can either be the creation, reframing or abandonment of policies because of activities or experiences with Social Innovation initiatives. An example is that of the new social farming regulations in Europe, which developed after the arguments made by the social farming movement (Elsen and Finuola, 2013) or parts of the Austrian Greencare programme which have existed long before the policy was framed in 2015. We subsumed this under the "bottom-up influence" in its impact direction.
- iii) *Policies that are neutral and not (yet) impacting upon social innovation.* Examples are policies on Research and Development (R&D) innovation support and innovation strategies which do not explicitly consider social innovation in their programmes. They can also have indirect impacts in structural regional support that prepares the ground for social innovation. This way is included here as "potential" or indirect impacts. In the long term resulting in, for example, the policy programming.

In particular, the results from our initial focus on policies as drivers of institutional change and the three ways of policy impact direction have revealed the complexity in the relationship between social innovation and policy. Institutional change is not a simple reaction between bottom-up initiatives (SI) and top-down structures (government and policy measures). The reaction results to be rather a number of continuous interactions back and forth along a very dynamic process. Institutional changes occur on both sides during this process and it is the role of (responsive and flexible) governance to facilitate social innovation with embracing both bottom-up and top-down collaboration. Within this relationship, we have identified the following policy opportunities for impact on forestry-related social innovation: (i) LEADER, EIP (European Innovation Partnerships) and national programmes in regional and rural development. (ii) Legislative changes and land reforms that enhance community forestry initiatives, or the fostering of stakeholder interactions and civil engagement that leads to legalising mountain bike trails. Regulative changes can be in favour of social innovation without directly addressing it: E.g. the Serbian law on cooperatives from 2015 recognises "social cooperative" as a formal type of organization, which was push for social enterprises to be established (Zivojinovic et al., 2019) (iii) Fostering the social dimension of the innovation (the inclusion of vulnerable groups) in forestry through policies: the cases detected in our analysis are Greencare forest, social forestry, and social biomass plants.

Despite such policy efforts, there is still potential for improvements in support for networking and coordination activities for project ideas. As outlined in the introduction, the specific nature of social innovation is that it goes beyond a merely economic driven logic. Public policy needs to open up to circumstances where the "outcome" cannot be measured in economic terms, as social innovation is not "non-market" based and in many cases not profit-oriented. Thus it needs also new types of policies. These include the necessity of supporting several kinds of actors in the Social Innovation, as we can find in the LEADER programmes, but also in the future development of the operational groups in EIPs. They need to reflect the components of social innovation which have a high degree of risk which are rarely accommodated by public policies and their underlying logic. In some of the cases detected, there seems to be a necessity to allow for broader approaches and "improved rules" for exceptional activities, such as e.g. "solidarity farming" and "social forestry". With social innovation there are new types of institutions emerging, through collective activities organised by civil society. This opens up new ways for organisations to working together, most importantly across different sectors, which appears to become a proliferating model for the forest sector. On the other hand, the concept of SI appears much too broad as addressing the "social" with many different facets of what "the social" is and what it entails, and what not. In sum, the concept intends to have a strong emphasis on the human side of innovation, which might have influence on institutional changes, including policies. A too schematic consideration of policy influence on SI would fall short the very character of it, as it occurs because of policy gaps or as alternative models in addition to existing policy approaches or even in confrontation. The relations also change over time, as shown when SI had developed in a bottom-up process and independent from specific policies, subsequently triggers new policies and institutional arrangements. The policy impacts on social innovation go forward and backwards: Policies stimulate SI and institutional change, and vice-versa, SI stimulates in some examples new or changing regulations and support mechanisms.

This research has shed light on the policy impact directions on social innovation. Research of different spatial focus or with different methods (Nijnik and Oskam, 2004; Sarkki et al., 2016) on policy and institutional change might provide different results. It is beyond the scope of this article to quantify our insights on a global scale as we have focused on European examples. Moreover, our focus on predominantly forestry examples provides similar limitations as cases from other sectors could lead to more insights and variety of policies and their impacts. Despite

their limitation to a few specific examples, our findings indicate that although there are political efforts detectable, there is still room for improvement in practice. As stated in the introduction, the peculiarity of social innovation is that it goes beyond a purely economic logic. Political support must recognize that the “result” can often not be measured economically, since social innovation is not “market-based” and in many cases not (merely) profit-oriented. That is why new forms of support are needed. Support for network and coordination activities for project ideas shall be further enhanced and different types of actors are to be included in social innovations (multi-actor approach), as provided for in the LEADER programs, and in the future planned development of the operational groups in the EIP (European Innovation Partnerships). These efforts need to reflect the components of social innovation, including a high (financial) risk. This is rarely taken into account by public policy and its underlying funding logic. In some of the cases described, there appears to be a need for broader approaches and “improved rules” for exceptional activities, such as “solidarity agriculture” and “social forestry”. As more recent social innovation research in forestry on the roles of public actors (Rogelja et al., 2020), widening of participation in forest governance (Sarkki et al., 2019) and the fostering or hindering factors in policy support (Lawrence et al., 2020) shows, there is a need to investigate more into these roles and factors on a broader empirical base. For future research this requests more studies of actual patterns of involvement across sectors and activities in order to inform policy and practice.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.forpol.2020.102335>.

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