Integrated landscape initiatives in Europe: Multi-sector collaboration in multi-functional landscapes[1]

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Abstract

Landscapes are linked to human well-being in a multitude of ways, some of which are challenged by global market forces and traditional management approaches. In response to this situation there has been a rise in local initiatives to sustain the values of landscape. The aim of this paper is to provide a systematic analysis of the spectrum of these initiatives in Europe in terms of patterns of organisation, participants, resources, problems, and landscape values addressed. This review collects examples of integrated landscape initiatives from all over Europe through systematic internet key word searches and canvassing of European umbrella organisations; followed by an online survey of representatives from the identified initiatives (n = 71). Our results show that the most relevant characteristics of integrated landscape initiatives in Europe are: a holistic approach to landscape management (acting in multifunctional landscapes and combining different objectives), the involvement and coordination of different sectors and stakeholders at many levels, and the role as agents of awareness raising and learning hubs. Integrated landscape initiatives mainly depend on impulses of local civil society. Identified barriers to their work include a lack of funding and institutional support. Therefore, political and societal action is needed to increase their effectiveness.

Introduction

Landscapes have been marked by sometimes gradual, sometimes rapid reorganisations to adapt their uses to changing societal demands throughout history (Antrop, 2005; Dannebeck et al., 2009). However, the current speed, scale, and magnitude of landscape change are unprecedented (Jansen et al., 2009; Millennium Ecosystem Assessment, 2005). European landscapes face changes linked to globalisation and its associated increasing flows of technology, investment, and trade; intensification and homogenisation; urbanisation and proliferation of built infrastructure; marginalisation and abandonment; and renewable power provision (Antrop, 2008; Plieninger and Bieling, 2012). In response to these challenges, there are growing movements among civil society throughout Europe that demand local and eco-products, are interested in local traditional knowledge and culture as connected to landscapes, are concerned about the conservation of biodiversity, long for unique touristic destinations, are willing to participate more actively in decisions affecting the landscape, or (if living in the big cities) are willing to start a new life in a rural area (Penker, 2009; Plieninger et al., 2015a; Termorshuizen and Opdam, 2009). These initiatives typically build on collaboration among different sectors and actor groups at many levels (Prager, 2012; Prager et al., 2012; Scherr et al., 2012).

Such collaborative initiatives have been termed "integrated landscape initiatives (ILIs)" (Estrada-Carmona et al., 2014; Milder et al., 2014) or "landscape stewardship initiatives" (Plieninger et al., 2015b). The importance of these new management approaches (landscape approaches) is reflected in the increasing number of studies that were dedicated to them. Schultz et al. (2007) developed a social-ecological inventory of local stewardship groups in Sweden. Axelsson et al. (2011) disaggregated the different concepts laying behind the landscape approaches. Ode Sang and Tveit (2013) studied the perception of landscape stewardship in agricultural areas of Norway as related to landscape preferences. Penker et al. (2014) defined a typology of organisations where voluntary forces are involved in the protection of landscapes in German speaking regions. Enengel et al. (2014) studied the "efforts, benefits and risks" perceived by the members of such initiatives. But until now, no synthesis of the full spectrum of integrated landscape approaches in Europe has been performed. Such synthesis is needed to make the study of ILIs relevant for policy at the level of the European Union. This may inform current European landscape-related policy processes, as well as national policies and regional planning. It also unfolds the current state of ILIs on the European continent, which is important to understand its history and future evolution, and its similarities with equivalent processes in other parts of the world. Similar continental-level reviews have been performed for Africa (Milder et al., 2014) and Latin America and the Caribbean (Estrada-Carmona et al., 2014), and Reed et al. (2016) have reviewed integrated landscape approaches in the tropics.

In this paper, we understand integrated landscape initiatives in Europe as projects, programs, platforms, initiatives, or sets of activities that foster a broad range of landscape values (Termorshuizen and Opdam, 2009) and contribute to the personal and social fulfilment and well-being of people. ILIs contribute to safeguarding landscape values by for example fostering rural tourism as connected to sustainability, local heritage preservation, and rural livelihoods improvement; or by helping farmers to produce and sell local products and consumers to have access to these products while contributing to the protection of the environment, the preservation of local agricultural knowledge, and the strengthening of the

sense of community. ILIs are characterised by the following criteria: they act at a landscape scale, involve inter-sectorial coordination, develop or support multi-stakeholder processes, are highly participatory, and work mainly on a non-profit basis. ILIs include bottom-up local initiatives and grassroots movements, civil society associations, non-governmental organisations, local governments organisations, agrarian or environmental platforms and cooperatives, but also initiatives fostered by regional and central governments, by international funds, or by national and international umbrella organisations. They generally act at a place-based level and involve multi-sector coordination.

The aim of this study is to provide an overview of integrated landscape initiatives across Europe. This is achieved by a systematic review of the available online information and expert knowledge within major organisations and networks in the field, as well as by an online survey of initiatives representatives. Specifically, we raised the following research questions:

1. In which landscape and land use contexts are European integrated landscape initiatives operating?
2. Which motivations and aims do integrated landscape initiatives typically have?
3. Which participants and stakeholders are involved in integrated landscape initiatives?
4. What structure and functions do integrated landscape initiatives have?
5. Which activities do integrated landscape initiatives implement and how are they related to landscape-level outcomes?
6. What successes have integrated landscape initiatives achieved and what problems are they facing?
7. How do integrated landscape initiatives contribute to landscape stewardship?

Method

Identification of integrated landscape initiatives

Firstly, we performed a systematic search for ILIs all over Europe between February and October 2014. The greater part of initiatives was collected through internet keyword searches performed in English in the Google Search engine. To identify relevant keywords and hence ensure that a varied and representative sample of ILIs was obtained, we performed a thorough scoping exercise (e.g. agricultural landscape, landscape heritage, landscape dynamics, and a list of all of the countries targeted; for a detailed list of search expressions used see Table A1), and the keyword searches exercise was only finished after saturation was reached and no new entries were provided. Initiatives were also collected by canvassing European landscape researchers and representatives of European umbrella organisations (e.g. Landscape Europe, Council of Europe, and European Landscape Network). Secondly, we recorded basic information on each initiative in a database (name, duration, contact details, and general characteristics) and screened the initiatives for agreement with the criteria of landscape initiatives (see examples in Table B1). Thirdly, we surveyed the initiatives that complied with the criteria. In a later step, we added some initiatives to the initial collection through the answers provided by respondents to our survey when they were asked to propose other ILIs.

In the end, a total sample of 507 organisations was compiled (84% collected from keyword searches, 10% suggested by experts and umbrella organisations, and 6% recommended by survey respondents), and after the selection the resulting survey population was 338 initiatives from 33 European countries. Seventy-five percent of all initiatives in the final sample were from the United Kingdom, Belgium, Germany, Italy, Spain, the Netherlands, France, Sweden, Romania, Austria, and Estonia.

Survey

We invited the 338 initiatives collected to participate in a self- administrated online survey. This survey was designed to gather in-depth information on each ILI. We used Questback's EFS platform (2014) for our survey. Predefined answer categories were given for most of the questions asked, but respondents could always add an open response if the list of given options did not match their reality. In addition, the survey included some open-ended questions. The survey was structured in eight sections, including information on: 1) respondents, 2) landscape characteristics and spatial context, 3) initiative's origin, aims (in terms of the landscape values addressed), structure, and financial resources, 4) activities developed, 5) stakeholders and sectors taking part, 6) dissemination channels, participation processes, and awareness raising activities, 7) outcomes achieved, problems, and successful aspects, and 8) feedback to the survey and additional information (for a copy of the survey, see Appendix C). The activities and outcomes were organised in five domains: 1) natural resources management and conservation, 2) farming and agriculture, 3) cultural heritage and traditions protection, 4) rural livelihoods and human well-being improvement, and 5) multi-sector coordination and planning (to foster the accurate management of the landscape specially in terms of cooperation among sectors and stakeholders, enhancing the role of local communities, and building of social capital).

A total of 136 respondents opened the survey, and 86 completed it, with a resulting response rate of 25% (average response rate for online surveys is 24.8% (Mirzaee, 2014)). Fifteen responses were excluded because they did not meet the selection criteria described above. Therefore, 71 ILIs from 23 countries (Fig. 1) formed the final sample for our analysis.

In order to identify a possible self-selection bias in the response rate we studied whether smaller or bigger initiatives were less likely to respond to the survey, using contingency tables and chi- square test of association. The results did not show any statistical significance.

Data analysis

We performed frequency analyses and measures of association between variables to identify common characteristics within the ILIs and relations between their attributes (for a table with the main variables compiled in the search, see Appendix D). For nominal variables (the majority of our data) we used contingency tables for the assessment of relations between them. Further, we used chi-square test of association to examine the statistical significance of these relationships.

We calculated the success of the ILIs by measuring how many activities implemented by each ILI demonstrated successful results, as assessed by the respondents themselves. Therefore, the 40 possible activities and 33 possible outcomes listed in the survey were clustered in subgroups where activities and outcomes are directly related (resulting in a list of 17

subgroups (see Tables E1–E5 in Appendix E)). For each subgroup we checked whether the initiative has had outcomes for the activities implemented within that subgroup, and if this was the case that subgroup was consider successful. With this information we assessed:

a   The proportion of successful activities for each initiative: we summed up the number of subgroups where the initiative was successful and normalised the results dividing this number by the number of subgroups where the initiative implemented activities (e.g. if the initiative had outcomes in seven out of ten subgroups where it developed activities, the initiative would be successful in 70% of its activities).

b   The proportion of successful activities for each domain: number of subgroups where the initiative was successful within the domain divided by the number of subgroups where the initiative implemented activities within that domain.

c   The proportion of initiatives that implemented successful activities within each subgroup: number of initiatives whose activities had outcomes within the subgroup divided by the number of initiatives that implemented activities in that subgroup.

Finally, the open-ended answers were gathered and combined in order to identify recurrent issues and new topics that were not included in the close-ended questions.

Results

Temporal and spatial context

At least one ILI in the survey sample was founded each year since 1985. Most of the ILIs were permanent (79%), i.e. initiatives that were not limited to a specific time frame. The duration of temporary ILIs ranged from 1 to 20 years, with a mean duration of 5.1 years (SD = 5.2).

Eighty-six percent of ILIs acted at regional (within country) or local scales. However, a few ILIs were operating at national (10%) or international (4%) scales. Membership numbers (in terms of members taking active part on a regular basis in the decision making and implementation of the initiatives' activities) ranged from 1 to 2000 members (but only 3 ILIs had more than 100 members). Median size was 12 members (due to the three outliers the distribution is skewed and therefore, the mean is 72.2, SD = 271.4).

Target areas of the initiatives were heterogeneous landscapes composed by a mean of 7.4 different land covers (SD = 3.4). In order to get precise information, respondents were asked to differentiate between dominant land cover (more than 20% of the surface), significant (between 5 and 10%) and minor (less than 5%) (Fig. 2). Arable land, pasture, and forest were the most frequent dominant land covers mentioned; fruit or olive trees plantation, vineyard, industrial land, and mines and quarries appeared frequently as minor land covers. Land covers not included in the survey categories but suggested by respondents were turf production and recreational uses such as golf and leisure activities.

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Impetus and aims

In a majority of cases, the origin of ILIs was endogenous (57%), i.e. based on the initiative of local people. In 24% of cases the ILI had been established due to exogenous factors, e.g. through law, regulation, or subsidy. There were also some initiatives whose origin was mixed (19%), such as ILIs created through the combination of a research project with the participation of the local community, or a local impulse prompted by an NGO.

Seventy-two percent of the initiatives reported nature conservation as a very import aim. Sixty-three percent considered important the enhancement and protection of cultural heritage, history, and local memory, as well as the enhancement of the beauty of the landscape (Fig. 3). The promotion of tourism and the production of localised and organic food were mainly secondary goals, reported by 42% and 34% of respondents respectively. Twenty-nine percent of ILIs reported the local production of renewable energy as unimportant for their initiatives and only 13% as very important. More than half of the initiatives (53%) considered the ten aims proposed as very or moderately important (mean of different aims per ILI = 7.7, SD = 1.9), revealing the integrated nature of the ILIs. The enhancement and protection of the cultural heritage, history, and local memory were associated with the strengthening of sense of place, local identity, and personal fulfilment (76%, $x2(1) = 21.11$, $p = 0.000$); the strengthening of social well-being and sense of community (69%, $x2(1) = 13.85$, $p = 0.000$); and the promotion of tourism (49%, $x2(1) = 10.07$, $p = 0.002$). The aims of ILIs differed based on the suite of participating stakeholders. For example, initiatives where civil and cultural associations were involved, very often reported strengthening of the sense of place, local identity, personal fulfilment (72%, $x2(1) = 8.4$, $p = 0.004$); social well-being and sense of community (70%, $x2(1) = 6$, $p = 0.014$); and protection of cultural heritage, history, and local memory (67%, $x2(1) = 5.32$, $p = 0.021$) as important aims. Initiatives where landowners were involved frequently found the protection of regulating ecosystem services (53%, $x2(1) = 4.98$, $p = 0.026$) very important.

Sectors and participants

In order to gain a sense of the multi-sector composition of ILIs, we asked respondents to indicate which sectors have been directly involved in the initiative (for example, by providing funding or staff resources, carrying out activities on the ground, or providing extension or capacity building services). ILIs involved a mean of 3.5 each (SD = 2.1). The most common sectors directly involved were natural resources, conservation or environment (75%), agriculture (58%), and tourism (51%), followed by education (45%) and forestry (32%). Regarding ILI participants, the design and implementation of the initiatives were characterised by multiple stakeholders with a mean of 6.4 different stakeholder groups per initiative (SD = 3.4). Most frequent stakeholder groups (appointed by at least 25% of the ILIs) were (Fig. 4): independent experts or professionals, local NGOs, civil associations, governments (national, regional and local), and universities. Participation of independent experts or professional and local NGOs was larger in the implementation phase compared to the design phase.

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Structure and functioning

As for their organisation, 49% of the ILIs operated as civil society organisations, such as non-governmental organisations (NGOs) or community-based organisations (CBOs). Hybrid organisations were also common (30%) and were typically partnerships between public and private sectors, civic organisations and local authorities, and local associations and universities. Initiatives formed only by public (18%) or private (7%) bodies were less frequent. Most of the endogenous ILIs were civic (60%) and more than half of the exogenous ILIs were hybrid (53%, $x2(12) = 34.91$, $p = 0.000$). A majority of initiatives (92%) collaborated with other institutions, which in most of the cases were local (82%).

Regarding financial resources, national funds were the most common source (61%), followed by European Union funds (42%), private donors (34%), financial support through activities—e.g. courses, festivals, exhibitions, excursions, and selling products- (31%), in-kind support (volunteer contributions) (27%), and subscriptions and memberships (24%).

Most of the ILIs that received financial support from subscriptions and memberships were civic (65%, $x2(4) = 10.4$, $p = 0.034$). Public ILIs did not receive in-kind support—i.e. non-cash goods or services ($x2(4) = 7.96$, $p = 0.034$). There was a tendency of European Union funds being linked to ILIs where the tourism (67%, $x2(1) = 5.29$, $p = 0.021$) and education (60%, $x2(1) = 4.67$, $p = 0.03$) sectors were involved, whereas national funds and donors were associated with agriculture (65%, $x2(1) = 4.2$, $p = 0.04$ and 75%, $x2(1) = 4.42$, $p = 0.035$ respectively).

Activities

The activities implemented by ILIs were clustered in five domains in the survey: 1) farming and agriculture, 2) conservation and natural resource management, 3) heritage, culture, and traditions protection, 4) livelihoods and human well-being, and 5) multi-sector coordination and planning (Fig. 5). Initiatives implemented activities in a mean of 4.3 (SD = 1.2). The number of activities implemented per ILI varied between one and thirty-four (out of a maximum of forty), with a mean of 13.1 (SD = 7.0). The most common activity was communication, education, and awareness raising regarding issues affecting the landscape (85%). When asked about the awareness raising activities they implement, most of the ILIs mentioned local workshops, conferences, or seminars (94% of the ILIs),but also training courses, open air activities, and guided walks (60% of the ILIs).

Other common activities were efforts to protect and promote the cultural and historical physical heritage (76%), efforts to strengthen the local sense of community (63%), and actions to preserve the traditional knowledge and culture (62%). Within the domain of farming and agriculture, more than half of the ILIs specified efforts to reduce the environmental negative impacts of agriculture (54%). Furthermore, most of the ILIs that had as an aim to protect regulating ecosystem services, implemented activities in the field of farming and agriculture (86%, $x2(1) = 6.03$, $p = 0.014$). Within the domain of livelihoods and human well-being, the increase of recreation possibilities for local people was selected most often (48%). Training or capacity building programs to support natural resource management (42%) was the most frequent activity implemented within the conservation and natural resource management domain.

Outcomes

The surveyed ILI reported a mean of 10.9 different outcomes (out of a total of 33 potential outcomes) from their activities (SD = 5.2) (Fig. 6). Initiatives had outcomes in a mean of 4.1 domains (SD = 1.2). The most frequently reported outcomes were in the multi-sector coordination and planning domain, specifically the improvement of the coordination and cooperation among stakeholders (68%), and increase of the local ecological knowledge (65%). In the domain of the promotion and protection of culture and heritage, the most frequent outcomes were enhancing the protection, promotion, and accessibility of the physical heritage of the area (59%), and implementation of activities and events to share and enhance traditional knowledge and the culture of the area (59%). In the conservation and natural resource management domain, generation of support for ecosystem management among the members of the initiative and the general public (58%) and better protection of the overall biodiversity of the region (46%) appeared prominently as outcomes. The livelihoods and human well-being and the farming and agriculture domains included less than 15% of all outcomes each. Here, the most frequent outcomes were the construction of infrastructure for recreation and tourism (45%) and the protection or enhancement of agricultural biodiversity (41%).

Problems

Among potential problems that ILIs face, lack of funding (56%), political shifts that threatened the permanency of the initiative's achievements (40%), narrow-minded and tight policies that block the development of the initiative (35%), lack of broader institutional support (28%), and lack of resources for monitoring the initiative's results (27%) were most frequently mentioned. The proportion of exogenous ILIs that did not report any challenges was more than four times higher than that of the endogenous ILIs ($x2(6) = 17.1$, $p = 0.009$). In addition, exogenous ILIs expressed fewer financial and support problems than endogenous ILIs, i.e. the initiatives with the problem of lack of broader institutional support were mainly endogenous (60%, $x2(3) = 9.98$, $p = 0.019$).

Within the initiatives that reported support from national funds, the problem of low level of public support was rare (7% mentioned the problem, $x2(1) = 6$, $p = 0.014$). The problem of lack of social capital was non-existent in ILIs that received financial support through their activities, i.e., were self-funding ($x2(1) = 4$, $p = 0.044$). Surprisingly, ILIs that received European Union funds frequently reported problems related to a lack of funding (70%, $x2(1) = 3.94$, $p = 0.047$). Some problems were connected to specific sectors. In more than half of the ILIs that specified the problem of lack of funding and lack of broader institutional support the tourism sector was involved (62%, $x2(1) = 5.1$, $p = 0.024$; and 70%, $x2(1) = 4.14$, $p = 0.042$ respectively). Almost all of the ILIs that had the problem of narrow-minded and tight policies developed activities in the domains of farming and agriculture (92%, $x2(1) = 9.53$, $p = 0.002$) and livelihoods and human well-being (92%, $x2(1) = 6.92$, $p = 0.008$).

Success

Fig. 7 shows that the domains with the highest proportion of activities that generated outcomes by subgroups (cluster of activities and outcomes that are directly related) were multi- sector coordination and planning (mean = 82% of the activities were successful, SD =

31%) and heritage, culture, and traditions (mean = 69%, SD = 47%). The conservation and natural resource management (mean = 57%, SD = 39%), livelihoods and human well-being (mean = 54%, SD = 39%), and farming and agriculture (mean = 46%, SD = 40%) domains were less successful.

A more detailed analysis, focusing on the proportion of initiatives that implemented successful activities within each subgroup (see Tables E1–E5 in Appendix E) reveals that the most successful subgroups were: 1) the support for traditional knowledge, local culture, and history protection among the members of the initiative and the general public (mean = 91% of the ILIs obtained outcomes from their activities in the subgroup, SD = 29%); 2) the support for integrated landscape management (mean = 84%, SD = 37%); and 3) the improvement of cooperation in issues related to landscape among different stakeholders and sectors (mean = 80%, SD = 42%) (all belonging to the domains for multi-sector coordination and planning, and heritage, culture, and traditions). Also very successful were: 1) the improvement of recreational possibilities for local people (mean = 76%, SD = 43%); 2) the accurate management of watersheds (mean = 76%, SD = 44%); 3) the support for ecosystem management (mean = 70%, SD = 47%); 4) the protection of the natural areas and biodiversity of the area (mean = 69%, SD = 47%); and the protection and promotion of the cultural and historical physical heritage (mean = 69%, SD = 47%).

Most and least successful aspects

The most successful aspects mentioned by respondents in an open-ended question were related to: awareness raising, involvement of local community, and knowledge exchange (mentioned by 30 ILIs). Also common was the success in making different stakeholders and sectors cooperate (20 ILIs). Less common but also mentioned as successful aspects were physical achievements linked to the preservation and promotion of cultural or natural heritage (5 ILIs). The most common unsuccessful aspects were found in the structure of the ILIs, such as: lack of funding, professional skills, and social sustainability due to missing social capital, poverty, and community cohesion (20 ILIs). In relation to that, many ILIs mentioned that considerable time and effort had to be devoted to fundraising and that it was challenging to achieve sustainable funding over the long-term. Other unsuccessful aspects (15 ILIs) were: lacking commitment of the business sector, change in mindset toward sustainable development, and cooperation at all levels. Recurrent problems were also (16 ILIs): lack of political and legal support (such as lacking regulations and management plans to protect landscape and missing enforcement of existing laws) and of the capacity of local governments to address the challenges of landscape management.

Discussion

The objective of this research was to provide a realistic and nuanced overview of integrated landscape initiatives in Europe. We aimed to explore the role, motivations, tendencies, potential, and constraints of these initiatives. Our survey reveals some differential patterns within the initiatives that help to better understand this phenomenon. The survey thus provides a "reality check" about the potential and outcomes of integrated landscape approaches that have recently been promoted (Sayer et al., 2013; Takeuchi, 2010).

Methodological considerations

Although the collection of the initiatives has been performed in a systematic way to avoid bias, the language of the searches (English) and the approach have limited the collection of ILIs to certain areas of Europe. Also countries with a large population have provided more results than smaller countries (with the exception of Belgium and the Netherlands). This means that the results of this research might not be entirely coherent with the reality of ILIs in the underrepresented countries.

Integrated landscape initiatives: a global phenomenon of multi-layered collaboration in landscape management

Notwithstanding the different continental contexts, ILIs in Europe share fundamental similarities with those in Africa and Latin America. In the three regions, ILIs represent innovative forms of multi-layered collaboration for landscape management. They are active in heterogeneous landscapes, they have various objectives and implement activities across several domains, they involve different sectors and stakeholders, and collaborate with institutions at different levels. In fact, like the ILIs in Latin America and Africa, the most common outcomes obtained by the ILIs in Europe are linked to multi-sector coordination and planning (Estrada-Carmona et al., 2014; Milder et al., 2014).

However, in the European context, the protection and promotion of cultural heritage is among the most important objectives of the ILIs and the domain with more outcomes, whereas in Africa and Latin America this dimension was not included in the surveys. Further research could analyse how initiatives from the different continents understand the concept of landscape and the role of cultural heritage in landscape management.

In all continental reviews, nature conservation and agriculture are the most common sectors involved in the ILIs, followed by tourism and education in Europe and by forestry and rural livelihoods in the other continents (Estrada-Carmona et al., 2014; Milder et al., 2014), revealing different continental contexts and priorities. This is reflected in the stakeholders taking part in the initiatives. In the non-European context, governments and producer groups are the most common participating stakeholders, whereas in Europe, independent experts, and civic and cultural associations are the predominant groups.

ILIs in the three continents share the challenge of lack of funding and participants (i.e., private sector in the cases of Latin America and Africa). The lack of adequate government support is a recurrent problem only in Latin America and in Europe (Estrada-Carmona et al., 2014; Milder et al., 2014). A possible explanation is that in Africa the expectations of having the support of the government are very low and therefore this is not perceived as a lack.

Traditional aims, new approaches

European ILIs pursue a wide range of aims, and within this variety, nature conservation and cultural heritage protection prevail as the main objectives. These objectives are traditional targets of many existing organisations, laws, and regulations. However, whereas the conventional approach to resources management has been rigid and hermetic, the way ILIs address the protection of nature and cultural heritage is more flexible and coherent with other land uses and sectors (especially related to the involvement of local communities). In fact, even when ILIs specify nature conservation as one of their most important aims, they do not

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necessarily implement tangible conservation activities. Rather, they address other aspects of the landscape, revealing a new and more holistic, "social-ecological" approach to the protection of nature (cf. Palomo et al., 2014 for similar observations on protected area management). This is in line with findings from Latin America where "a shift of major conservation organisations toward prioritizing conservation strategies that also support economic development and human well-being" (Estrada-Carmona et al., 2014, p. 9) has been observed.

Nonetheless, initiatives with a focus on nature conservation and initiatives with a focus on cultural heritage protection in some cases present different characteristics. In fact, the protection of cultural heritage is significantly associated with goals to enhance aesthetics, tourism, and personal and social fulfilment and well-being; while this association is not significant in the case of the conservation of nature. Differences are also noticeable in the stakeholders groups that take active part in the initiatives. Civil and cultural associations are usually involved in the ILIs whose primary objectives are related to cultural heritage, tourism, aesthetics, and well-being. In contrast, landowners and agri-business are more commonly involved in ILIs with objectives linked to nature conservation.

The importance of multi-sector coordination: multi-functional landscapes and pressure on agriculture

Despite the distinction between purposes of nature conservation and of cultural heritage preservation, ILIs have a much more holistic understanding of landscape than other initiatives that act on the land. ILIs do not focus on a particular land use or landscape feature, but on the landscape as a whole. This becomes evident in the large number of land covers mentioned by each ILI in the survey. Such holistic approach and the multifunctionality that many European landscape initiatives foster (Mander et al., 2007) correspond to the variety of objectives that ILIs pursue. In fact, most ILIs achieved outcomes in four to five different domains (nature, culture, farming, multi-sector planning, and rural livelihoods) in parallel. This might be enhanced by the multi-stakeholder and multi-sector nature of the ILIs.

However greater cohesion and better balance between stakeholders involved in the ILIs could be achieved. Farming activities are fundamental for other sectors and societal goals, such as the protection of ecosystem services and the enhancement of landscape beauty. Hart et al. (2015) argue that farmers and producer movements play an important role in the integrated management of landscapes, not only by performing sustainable farming activities but also by contributing to the protection of nature and to the collaborative management of the land. The authors also claim that this role is rarely acknowledged and that efforts should be made to recognise and encourage farmer participation in landscape stewardship movements. Supporting this claim, farmers and producers associations are present in less than 25% of European surveyed ILIs, even though more than 60% have arable land and/or pasture within the land covers in their target area. Publicly supported land care groups may be one way to strengthen the role of farmers in ILIs (Prager and Vanclay, 2010).

The role of civic motivation, local initiative and multi-level collaboration

According to Penker et al. (2014, p. 25), "civil society organisations emerge to satisfy the demand for public goods …that is not covered by market or state mechanisms". Such

organisations "transcend traditional management boundaries" (Reed et al., 2016, p. 2). The significant share of civic ILIs in our survey underlines their potential to generate new and integrative land management approaches that respond to the personal and social wellbeing at a landscape level. Addressing the complexity of the demands for functions that landscapes provide requires forms of governance with institutional complexity, both in terms of redundancy and in terms of a diversity of institutional types (Dietz et al., 2003). The predominance of ILIs with hybrid forms of governance shows that institutional diversity may support the work and success of ILIs across domains of interest. Kozar et al. (2014, p. x) highlight the importance of bridging the public and private and civic sectors to "create 'generative forms' of power that pull actors together through collective action (. . .) that can support landscape policy and practice through the actions of key individuals and champions, while helping to overcome divergent values and interests, institutional hurdles, and resource limitations". In this sense, ILIs play an important role as bridging organisations—mediating between different knowledge systems, actors, and institutions at all levels; building trust; and fostering social learning (Berkes, 2009; Crona and Parker, 2012; Kowalski and Jenkins, 2015; Olsson et al., 2007; Prager, 2010; Prager, 2015).

Local ingenuity and collaboration are fundamental characteristics for the ILIs. Nonetheless, many authors argue that an effective and sensitive management of the landscape requires the involvement of stakeholders at many levels (Axelsson et al., 2011; Enengel et al., 2014; Reed et al., 2016). Initiatives supported only by local stakeholders tended to encounter problems of institutional, political, and financial support. In our survey, endogenous ILIs report more problems than exogenous ILIs, particularly in relation to a lack of funding, a lack of broader institutional support, political shifts, and restrictive policies. This tendency might be accentuated by the fact that endogenous ILIs lack that institutional diversity highlighted above. In contrast, exogenous ILIs tended to have hybrid governance structures and were, therefore, more flexible and prepared to address a wider set of problems and had potential to work in a greater variety of ways. Similarly, exogenous ILIs tended to be supported by more stable sources (e.g. national and European funds) while endogenous ILIs relied on a diversity of funding sources. Volunteerism and in-kind support, i.e., bottom- up resources, played a bigger role in supporting endogenous ILIs than exogenous initiatives.

Most successful aspects of integrated landscape initiatives and their contribution to landscape stewardship

The aspects where ILIs reported the greatest success are those linked to their role as agents of awareness raising and multi-sector and multi-stakeholder coordination. The success index and the open-ended questions suggest that outcomes related to: local community involvement in landscape management activities; increasing the coordination and communication between communities, stakeholders, sectors, and private and public institutions; legal and institutional support for the protection of landscape values; and increasing support for integrated landscape management from the public were the areas in which ILIs saw the greatest success.

Our survey supports that European ILIs are hubs of collaborative and place-based management. Scherr et al. (2012, p. 10) highlight the role of ILIs as a means for facilitate land users to take "collaborative action [towards more sustainable practices] to address challenges and opportunities that cannot be addressed by any one group acting alone". In this sense, ILIs match the definition of adaptive collaborative management systems as "flexible community-

based systems of resource management tailored to specific places and situations and supported by, and working with, various organisations (and stakeholders) at different levels" (Olsson et al., 2004, p. 75). Such collaborative processes highly contribute to trust and social capital building (Conley and Moote, 2003; Koontz and Thomas, 2006).

Our survey also shows that lack of social capital is not reported in ILIs that generate financial support through their activities. ILIs play an important role in fostering landscape stewardship by bringing people in direct contact with the land – increasing their capacity and commitment by learning from their experiences (e.g., through guided walks and open air activities) – and establishing collaborative networks, thus enhancing the support for integrated landscape management strategies and creating social capital (Axelsson et al., 2011; Folke et al., 2005; Olsson et al., 2004).

Many authors point to the importance of social capital to integrate and apply different knowledge systems (Axelsson et al., 2011; Folke et al., 2005, p. 445; Schultz et al., 2007), and in more than half of the cases we studied, ILIs were able to foster a "learning environment". For example, the second most common outcome within the ILIs is the increase of the local ecological knowledge (65%). This learning environment is in line with the findings of Axelsson et al. (2011), who recognise the role of landscape approaches as learning hubs, where the different parts collaborate to produce explicit and transdisciplinary knowledge and experiences.

Need for long-term approaches in cross-cutting issues

The ILIs that we surveyed are strong in promoting and protecting cultural heritage, both the tangible and the intangible (knowledge, traditions, and culture). In contrast, their success in the fields of rural livelihoods improvement and sustainable farming and agri-culture is more limited. The success in the domain of the protection of cultural heritage could be related to the fact that this is the only domain in which narrow and restrictive policies that block the initiative's growth and success were uncommon. The protection of cultural heritage is already well embraced in European laws, regulations, and policies. It also seems to be a less controversial domain in terms of stakeholder interests and land use conflicts in Europe. Another explanation for the high rate of success in this domain might be that outcomes are achieved on different time scales compared to outcomes in the other domains. Heritage can be protected immediately, while it may take much more time before outcomes related to rural livelihoods can be observed (Estrada-Carmona et al., 2014). For more intangible, cross-cutting issues, the effects of the ILIs' activities might not be visible in the physical landscape, but must be observed in the actions of the different actors involved in the process. The importance of long-term efforts was included by Scherr et al. (2013, p. 2) in their definition of integrated landscape management, which refers to "long-term collaboration among different groups of land managers and stakeholders to achieve the multiple objectives required from the landscape". In the face of this, it is important that most ILIs were conceived as permanent initiatives (not limited to a specific time-frame) but it is a serious limitation that many mentioned an increasing problem of getting long-term support.

How to foster the success of integrated landscape initiatives through political action?

The lack of resources and of institutional and political support are recurrent problems within the surveyed ILIs. This reveals that the political discourse on the preservation of landscape values has two speeds: one at an international level where landscape approaches are becoming important, through initiatives such as the European Landscape Convention (Council of Europe, 2000), the Florence Declaration on Landscape (UNESCO, 2012), and the Global Landscapes Forum (2013); and one at national and lower levels where it is still a vague concept more than practice and mainly linked to the protection of physical heritage (natural and cultural) (De Montis, 2014). The limited involvement of local and regional authorities in ILIs can also be understood as an expression of this problem. Nonetheless, our results do not provide evidence that stronger participation of public agencies could solve these problems, as there is no link between higher public agency participation and better institutional or political support (it had no positive or negative effects). This adds to the findings of the continental reviews of ILIs in Africa and Latin America, where participation of public agencies was common but not always beneficial for achieving the goals of the initiatives. Therefore, further research is needed on the role of public agencies in ILIs and why their participation does not lead to positive effects. Future research also could analyse the different political and legal contexts of successful and unsuccessful initiatives to generate insight on the impact of narrow and constraining policies on their development.

Olsson et al. (2004, p. 84) highlighted the importance of "framed creativity", which allows local stakeholders and communities to be innovative in the management of their resources, while providing a legal frame or authority that assures that they act in a sustainable manner. In the case of ILIs, such a legal frame might ensure that political shifts do not threaten the permanency of the initiatives' achievements or undermine the potential for broader institutional support. Furthermore, Scherr et al. (2012, p. 17) state that, "policymakers, businesses, donors, and other leaders must embrace a whole landscape approach, aligning and coordinating sectorial policies to support whole landscape initiatives, mobilizing investment, and building public-private landscape partnerships". To this end, the European Landscape Convention provides a good initial framework, but will require the commitment of countries to encourage regional and local governments to implement its principles. These regional and local legal frameworks should provide enough space for ILIs to proliferate, innovate, and succeed, while protecting them from interests and factors that would limit their success.

Policy recommendations

From our analysis, we derive a set of recommendations that could foster the development and mitigate constraints for ILIs in the European context. We feel that the success of these initiatives depends on public policies and civil society to provide a supportive framework for them.

To support the activities of ILIs, governments might:

1. provide long-term and on-going financial support to integrated landscape management;
2. simplify funding options and offer more stable financial resources for ILIs;
3. provide a flexible legal framework based on the knowledge and experiences generated by ILIs, in order to protect the interests and reduce political constraints for collaborative efforts to manage landscapes;

4. tackle the lack of enforcement of existing laws that contribute to integrated and sensitive management of landscapes; and

5. devote more resources to educate and train society about the importance of the integrated and collaborative management of landscapes.

The support from the governments needs to be reinforced by civil society so that:

1. markets capture the value of a variety of landscape benefits and are ready to pay for them (e.g. added value of products that foster the landscape beauty, organic agriculture, rural livelihoods improvement, and climate change mitigation);

2. the role of farmers and producers as stewards of the land is recognised and supported more strongly;

3. some sectors of society acknowledge their responsibility in awareness raising and are cautious and sensitive to the impact their messages and actions have on people. For example, journalism and marketing play a very important role in defining opinions or in creating needs for specific products. The same applies to famous people whose attitudes are copied, or to researchers who should make sure that their message transcends the academic world.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.landusepol.2016. 07.001.

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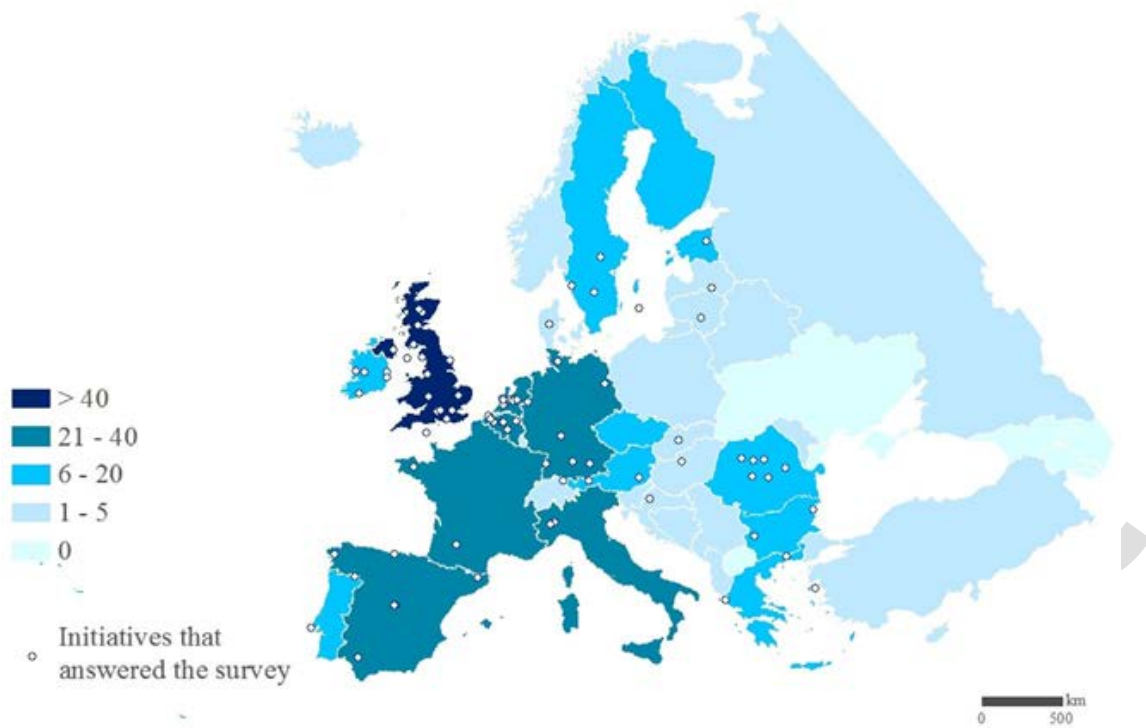
Fig. 1. Choropleth map showing the number of integrated landscape initiatives collected per country; and points indicating the location of the initiatives included in the analysis.
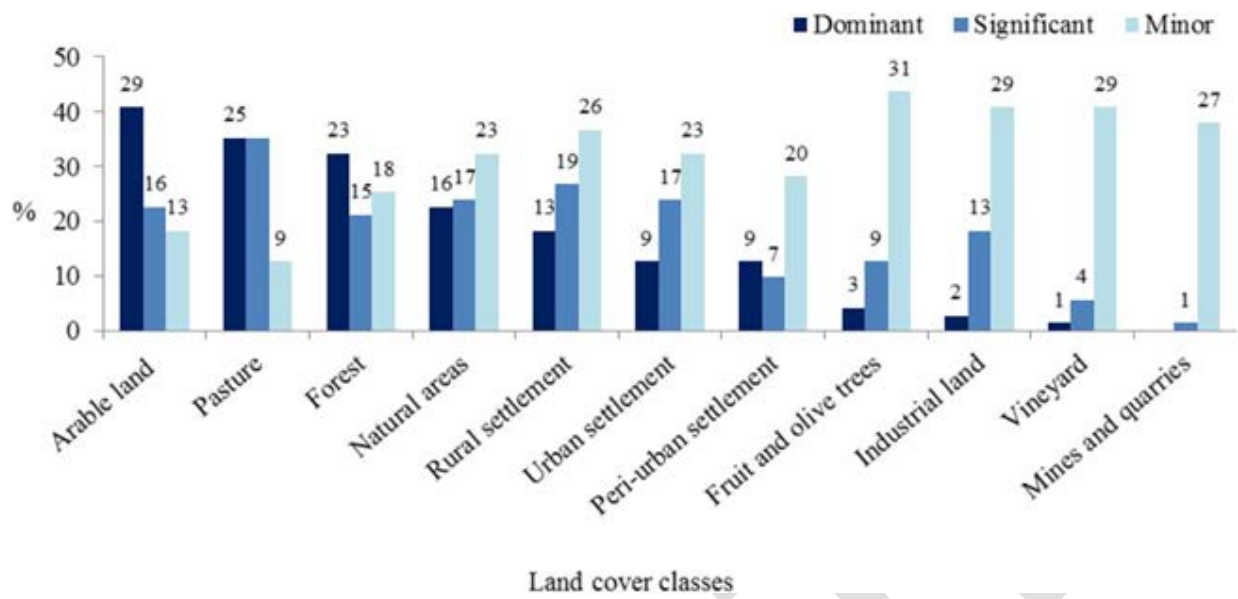
Fig. 2. Percentage and number of integrated landscape initiatives that addressed particular land covers. The numbers over the bars represent the number of initiatives that selected each land cover class as dominant, significant, or minor in their area.
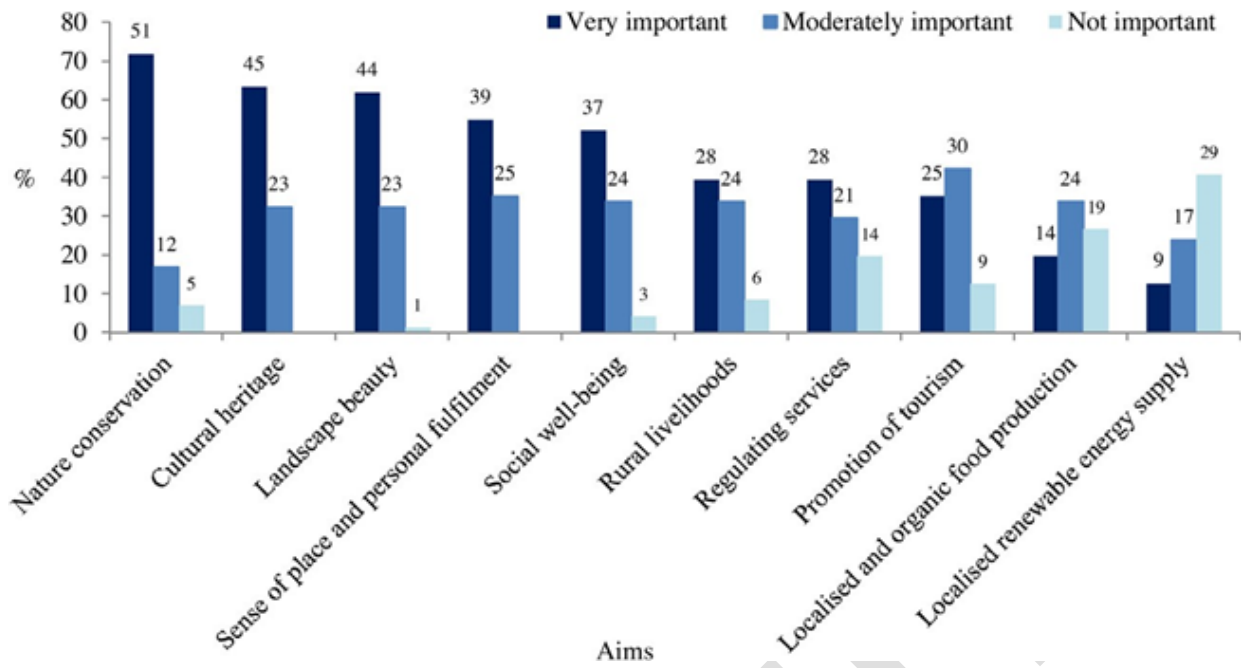
Fig. 3. Percentage and number of integrated landscape initiatives that have selected very important, moderately important, and not important aims. The numbers over the bars represent the number of initiatives that selected each aim as very important, moderately important and not important.

Actor groups

Fig. 4. Percentage and number of integrated landscape initiatives in which the different actor groups take part. The numbers over the bars represent the number of initiatives that selected each actor group for implementing or designing the activities of the initiative.
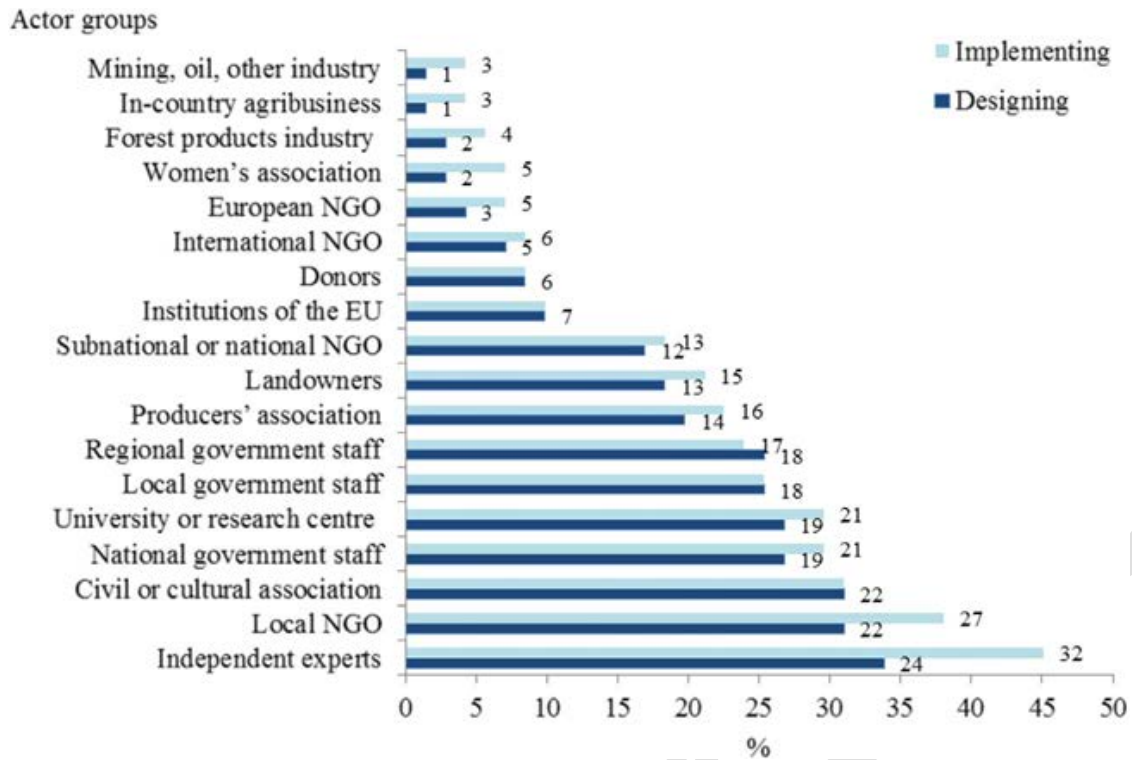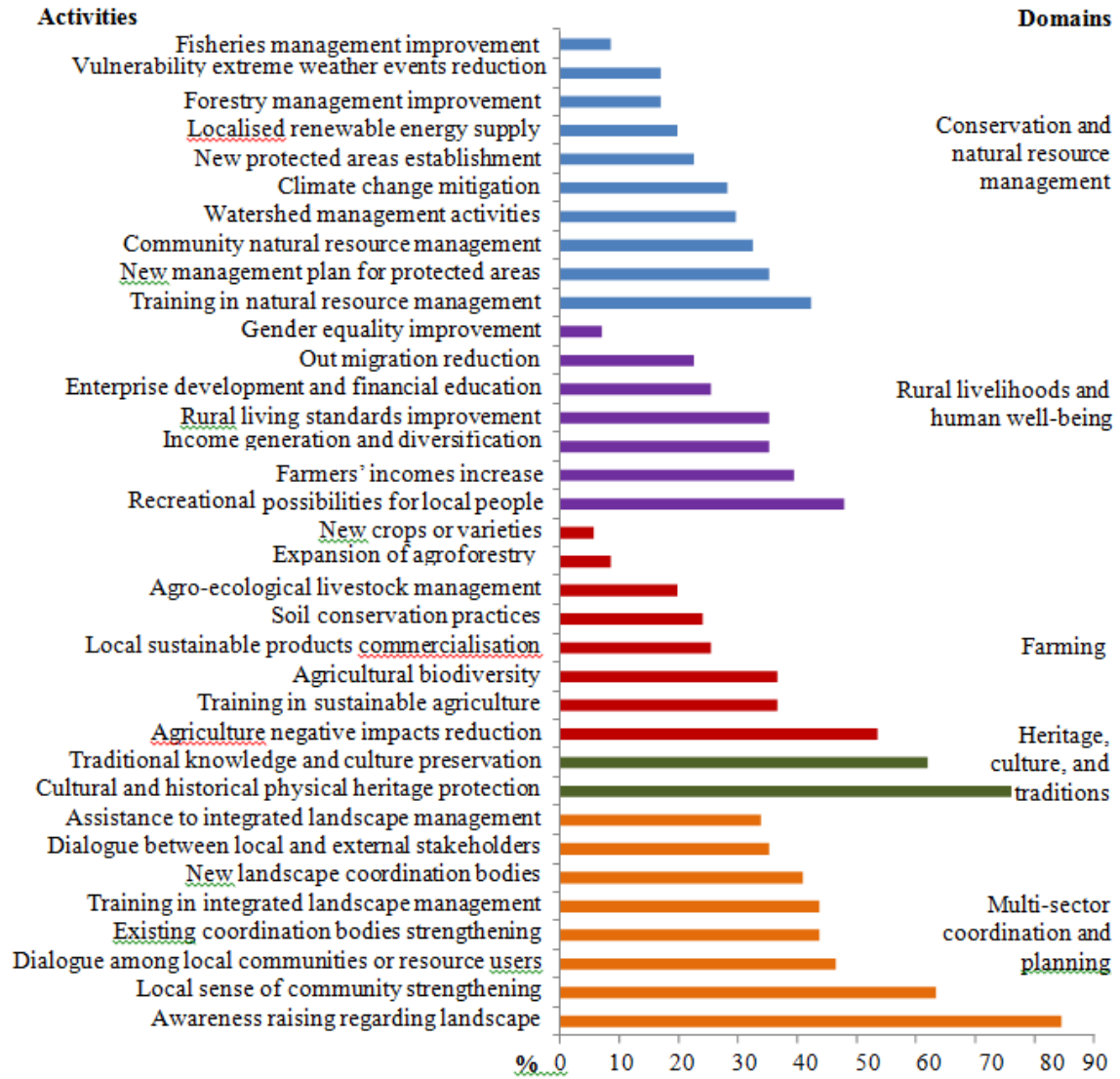
Activities

Fig. 5. Percentage of integrated landscape initiatives that implemented each activity, by domains.

Outcomes

Domains

Commercialisation of local sustainable products
Support for sustainable agriculture generated
Negative impacts of agriculture reduced
Agricultural biodiversity enhanced — Farming

Access to health services improved
Household cash income increased
Noncash measures of livelihoods improved — Rural livelihoods and
Food security for landscape inhabitants improved — human well-being
Economic activity diversified
Recreational and tourism infrastructures built

New local renewable energy installations
Other ecosystems services restored
Ecosystem services that support agriculture restored — Conservation and
Water quality, quantity or regularity improved — natural resource
Connectivity of natural habitats increased — management
Threatened species better protected
Overall biodiversity of the region protected
Support for ecosystem management generated

Research on culture, traditions and history developed
Support for culture and heritage generated — Heritage,
Traditional knowledge and culture enhanced — culture, and
Physical heritage protected and accessible — traditions

Women felt more empowered
Local co   Cooperation among sectors improved — Multi-sector
           coor
Traditi   mmunities empowered in decision making   dination and
onal knowl. on resources preserved and used   planning
Local ecological knowledge increased
Cooperation among stakeholders improved

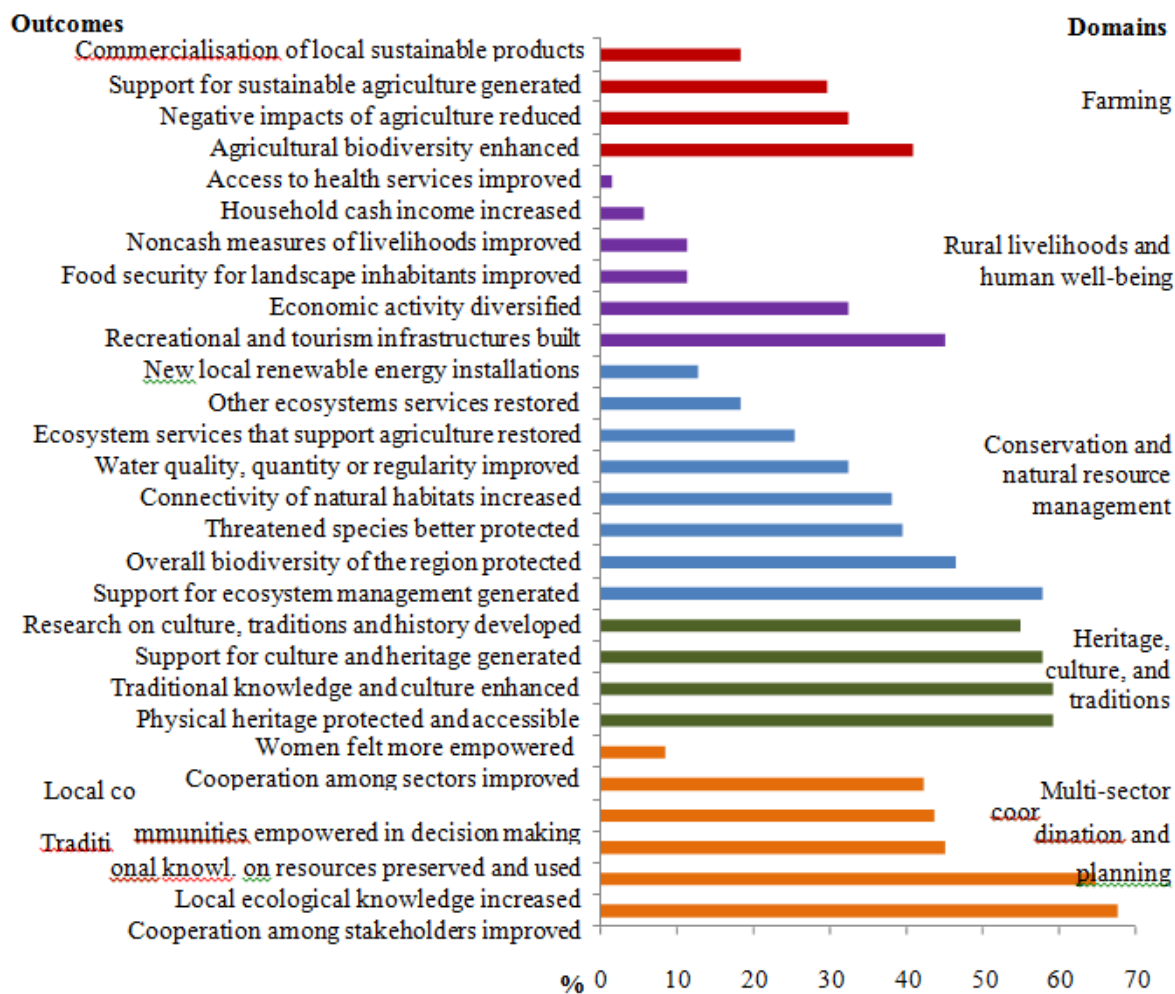% 0   10   20   30   40   50   60   70

Fig. 6. Percentage of integrated landscape initiatives that achieved each outcome, by domain.
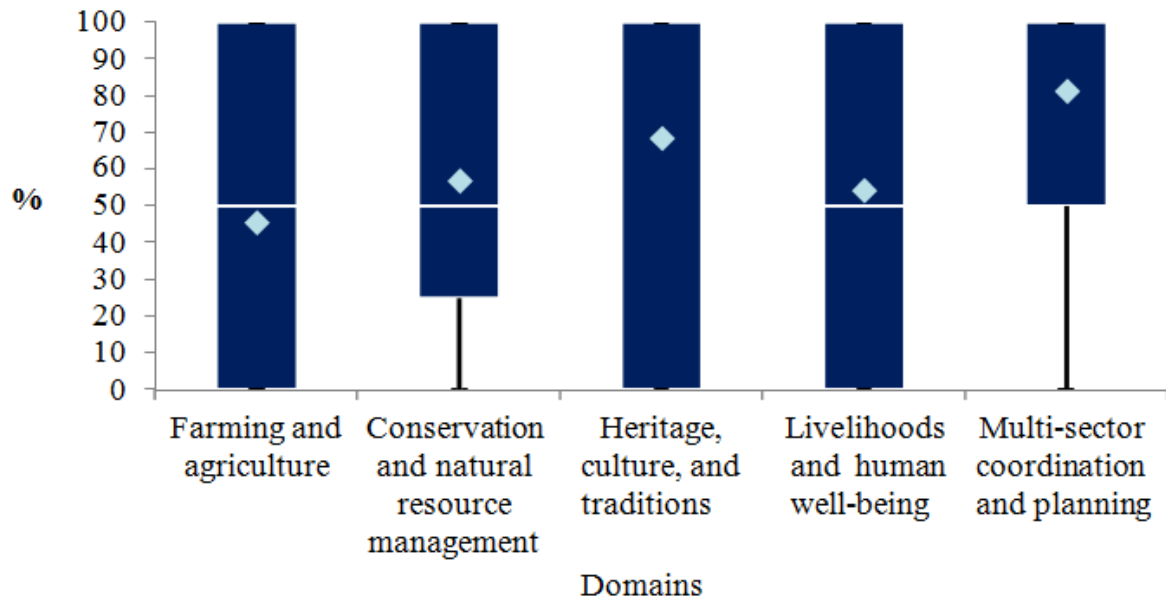
26

Fig. 7. Percentage of successful subgroups by domains. This graph represents the dispersion of the data, where the light blue rhombus represent the mean, the white horizontal lines the median and the whiskers the upper and the lower quartile (the distribution of the first and last 25% of the values). (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)