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Transmitting and Transforming (Agri)-Cultural Values of Mountain Farming: Farm-Based Educational Services in South Tyrol

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Social farming helps mountain farms to deal with current socioeconomic challenges that threaten the cultural identity and traditions of mountain areas. It is an innovative bottom-up initiative that addresses societal needs and complements institutionalized social services. In the north Italian province of South Tyrol, social farming is mainly implemented by women farmers offering educational services on their farms. This paper examines how these activities influence the transmission and transformation of (agri)-cultural values of mountain farming in South Tyrol. Data were extracted from a 2017 online survey among farmers who offered educational services in this province. The results demonstrate that farms offering these services are distributed throughout the whole region. Through the variety of topics included in their lessons, farmers have a key role in transmitting (agri)-cultural values and traditions to nonfarmers. Although farm-based educational services in general may increase a farm's income, the results show that they contribute little to the economic viability of the farm. Nevertheless, these services provide an interesting field of action, where all family members can share ideas and interact with children, teachers, and parents. In parallel to cultural transmission, farm-based educational services can therefore transform traditional (agri)-cultural values in family farms, shifting from traditionally patriarchal values. Women farmers, in particular, gain an opportunity to acquire new skills and a personal income, independent of agricultural production. Therefore, the provision of these services contributes to the social sustainability of family farms.

Keywords: *social farming; family farms; South Tyrol; agricultural values; cultural values; traditions; educational services; women farmers.*

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Introduction

Mountain farming is a major disseminator of (agri)-cultural values in the Alps (Kianicka et al 2010); however, due to current agro-structural transformations, its role in promoting these values is changing (EUROMONTANA 2018).

These (agri)-cultural values have developed over centuries as a consequence of harsh local conditions. They include hard work, perseverance, respect, and responsibility in interacting with nature (Holtkamp 2016). They reflect the typical beliefs, observations, knowledge, and skills gained from practicing traditional agricultural activities (mountain pasture and forestry, breeding, small-scale agriculture) for generations. Respecting these values implies the adoption of traditional agronomic practices and mountain pasture management as well as the implementation of interventions against hydro-geological risks (reforestation, rebuilding of fences, maintenance of ponds, etc). This in turn preserves soil quality and plant biodiversity as well as mitigates the negative effects of the intensification of economic activities and natural hazards. Yet their observance may limit the modernization of agricultural practices (Sullivan et al 1996; Schoon and te Grotenhuis 2000).

(Agri)-cultural values also include resistance to misfortune, a strong sense of family, thrift, and permanence (Vogel and Wiesinger 2003). Farming families observe these values, looking after relatives in need (Giuliani et al 2017) and helping neighbors (Vogel et al 2013). This creates an interfamilial network based on strong social cohesion and mutual dependence between a protecting community and individuals. This facilitates the functioning of the community and farmers' understanding of values, and creates a sense of belonging, as well as providing currently lacking social services. In contrast, this network can hinder openness to the values of modern society and changes in professional ethics. Within it, women play a central role; however, they mainly engage in invisible and unpaid activities (household management, care services, manual agricultural work) (Schmitt 2009; Contzen and Forney 2017).

Mountain farming in the region is dated and is now facing some challenges. It faces the lack of younger people who want to take over farms from the aging population of farm holders, as well as the absence of women farmers (Cocca et al 2012). Mountain farming struggles with lagging technological developments and reinvestment (Bacco et al 2018), limited off-farm activities (López-i-Gelats et al 2011), and disparities in income levels (Mishra et al 2009). Farmers

often migrate and abandon farming (Keenleyside and Tucker 2010). Those who remain either intensify agricultural production or apply multifunctional strategies (Flury et al 2013).

As a result of these challenges, the (agri)-cultural values described above are at risk of dispersion or mutation into a different "archetype" within the mountain farming society and specifically within families. On one hand, community erosion and agro-structural change contribute to a loss of knowledge of traditional rural life and values (eg Woods 2004). On the other hand, these changes offer an opportunity to incorporate existing values with new socioeconomic perspectives on mountain farming (Tulla et al 2014), including the reassessment of the farm management and of the value system of the families who work there.

This last instance is especially evident when mountain farms diversify. There is evidence that these activities increase the complexity of farmers' values (eg Brandth and Haugen 2000, 2005, 2010). One important contribution is reported by Bryant (1999), who highlights the coexistence of 2 types of farmer identity. The first one, the traditional identity, which includes some of the (agri)-cultural values explained above, is still considered important. The second one, the "detraditional" identity, is more open to reconstruction, and the propensity to adopt it seems to be growing. In fact, diversification activities increase possibilities for education and self-realization (Oedl-Wieser and Wiesinger 2010; Bäschlin 2013), and promote contact with different lifestyles outside the agricultural milieu, which is likely to change farmers' own ways of living. Additionally, diversification calls on all family members to bring their competencies into the farm businesses; this increases the importance of women's roles (Seuneke and Bock 2015), fosters their economic independence, and provides them with their own space of action (Annes and Wright 2015). This contributes to the dismantling of the patriarchal structure, as has already happened in some European rural regions.

Among the diversification activities, social farming plays an important role in the transmission of (agri)-cultural values. Interactions between urban people and the farming environment promote sensitivity toward and knowledge of agricultural traditions, production techniques, and local culture (Van Assche and Hornidge 2015; Leta et al 2018). Specifically, farm-based educational services enable practitioners to network with pupils and teachers in an informal setting, through conversation and by trying out typical farming activities. As a result, values spread much more easily into the societal value structure.

The abovementioned economic and social transformations affect South Tyrol, a border region in the north of Italy. Here mountain farming is conducted by 20,246 farms, which face the difficulties described above (generational changeover, lack of financial and technical resources). As a result, the rate of farm abandonment is high. An average of 18% of farms disappeared in the 30 years from 1980 to 2010. To survive, more than half of the farmers carry out agricultural activities as a source of secondary income and work outside agriculture or engage in diversification. Among diversification activities, agritourism is the one most widely practiced and is offered by about 15% of South Tyrolean farms (ASTAT 2014).

Farm diversification could transform (agri)-culture in South Tyrol, where the farming society has developed its identity around the principles of rurality and patriarchy (Kaplan 2000). This is evidenced by the relatively low share of female farm managers, compared to the Italian and European average (ASTAT 2016; EUROSTAT 2017), which could indicate their low decision-making power. According to Matscher et al (2009), South Tyrolean women farmers working full time accept traditional gender-differentiated division of labor: they do the housekeeping, care for their children or relatives, or work in the garden. In contrast, male farmers are responsible for farm management. Gendered duties on the farm result in an unequal access to resources and in a low societal appreciation of women farmers' work (Oedl-Wieser 2006; Contzen and Forney 2017). These conditions foster gender inequalities in family farms and may be challenged by the integration of social farming activities.

In South Tyrol, educational and care-taking services dominate in the sphere of social farming. In 2012, a total of 50 farms offered social services, which is 0.25% of all the farms in the province. Compared to other Italian regions, this is relatively low. The most frequently provided service, in 29 cases, is "School on the Farm" (German: *Schule am Bauernhof*). Social farming activities are mainly implemented by women farmers, as the idea of providing social services on farms was initiated by the women farmers association (Hoffmann and Streifeneder 2013).

This paper investigates the importance of social farming in the transmission and transformation of the local (agri)-cultural values in South Tyrol. Focusing on education services, it demonstrates the territorial distribution of School on the Farm in this province and describes the contents of its education programs. Moreover, it evidences how (agri)-cultural values change, and it considers farming families' values.

Methodology

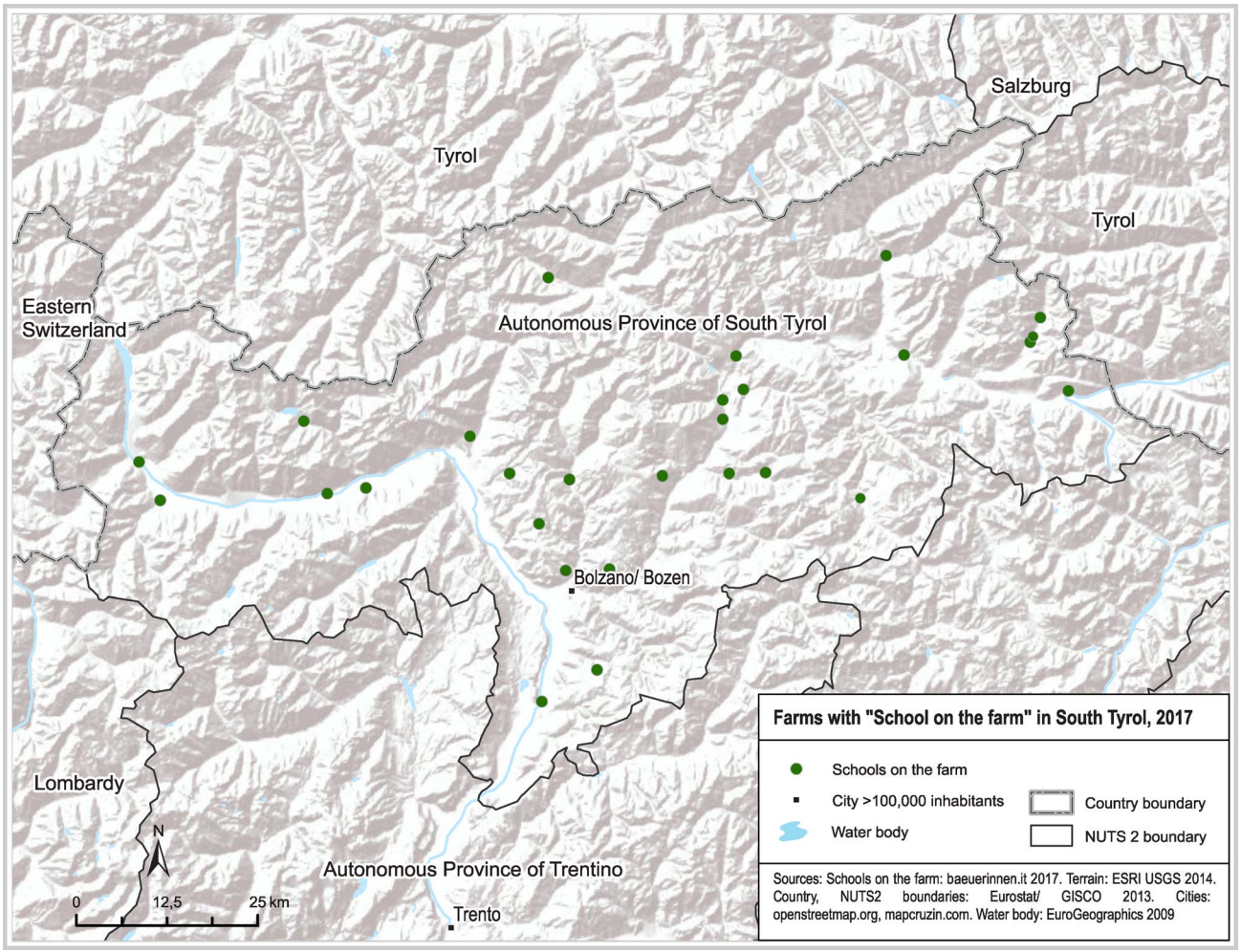
This study analyzed the potential of social farming to transmit and transform (agri)-cultural values using an online survey completed by South Tyrolean schools on the farm. Schools on the farm are integrated in operating multifunctional farms, distributed throughout mountain areas close to larger population centers. They are run by farming families.

The online survey included structured and open-ended questions. The structured questions investigated educational offerings and their contribution to the transmission of values. Specifically, they asked about (1) the contents of the educational programs offered, (2) their target groups, and (3) their financing and organization. The questions were inspired by the work of Haubenhofer et al (2010) on the aims and the characteristics of farm pedagogy programs offered by some educational farms in the Netherlands.

Data from the structured questions were processed using a descriptive analysis. Written comments and suggestions from respondents, if available, were elaborated and presented through a synthesis of the content.

The open-ended questions investigated the impact of educational engagement on the (agri)-cultural values shift in farming families. According to Holtkamp (2016), farmers' work and lifestyles include the following criteria: farming duties, social interactions, relations, traditional attitudes, and behaviors. Therefore, the categories of analysis encompassed (1) changes in time allocation for traditional

FIGURE 1 Location of the South Tyrolean farms offering *Schule auf dem Bauernhof* (School on the Farm). (Map by the Institute for Regional Development, Eurac Research)



farming activities; (2) changes in time allocation for common social interactions with family members, friends, and acquaintances; and (3) changes in the degree of social relations outside of the farm context.

The link to the online survey was sent to all 29 schools on the farm in South Tyrol and was available between September and November 2017. Figure 1 maps the distribution of South Tyrolean farms offering School on the Farm.

Results

In total, 15 valid responses were used for further analysis, corresponding to a response rate of 51%. The results of the survey are presented in 2 sections. The first section describes the educational services offered by the farms investigated through the analysis of the structured questions. The second section explains the extent to which the farming family's experiences with farm-based educational services have changed the (agri)-cultural values and refers to the open-ended questions.

The experience of social farming in South Tyrol

The geographic location of South Tyrol in the Alps characterizes the working conditions in which the 15 respondent family farms are embedded: 5 farms operate mainly on steep slopes, 8 farms are on steep slopes and in lowlands, and 2 farms cultivate agricultural land exclusively in the lowlands. The main economic activity in the mountainous areas of South Tyrol is livestock farming and grassland management. Of the investigated farms, 11 are engaged in these activities; the other 4 farms produce a variety of agricultural goods, including animal products, wine, fruit, cereals, and vegetables. Of the respondents, 40% manage organic farms and 53% produce conventionally. One respondent did not specify his production methods.

More than two thirds organize up to 10 educational events per year. Groups of children from 6 years of age, including interested teenagers and school classes from urban environments, visit a farm for 3 to 4 hours. Disabled people and those in rehabilitation are also targeted. They gain an insight into the life and work of a South Tyrolean farming family, what farming tradition and traditional food production mean, and what social values agriculture holds. This happens through interactive activities and knowledge transfer about healthy eating, animals, and plants. Table 1 provides information about the number of schools on the farm in South Tyrol, the educational programs offered, the farm family members involved, and the target group for the educational service.

TABLE 1 Characteristics of School on the Farm in South Tyrol with 29 participating farms.

Programs	Involved farm family members	Target group/service users
• How to produce milk • Everything about apples • Grains and bread • Sheep and wool • Forest and wood • Animals/insects • Fruits/vegetables • Herbs • Agriculture in the past	• Women farmers • Farmers • Sons (helping)	• Children 6 years and older • School classes

The educational programs consist of 2 parts: a theoretical lesson, where farmers explain the "rhythm of nature" and the origin of agricultural products, and a practical part, where children learn how to plant produce for salads or care for the farm animals. At the end, a follow-up lesson is organized by the teacher. One farmer explains:

> *We started with the School on the Farm in 2005* [in cooperation] *with the Waldorf School Brixen. The children come during 3 secondary school years, they come in spring and autumn for 3 hours per week in the afternoon, and do theory and practice; a Waldorf teacher from Berlin was also present. During this work, small groups were formed: one with me, one with my husband, and one with the teacher. The theory was covered by the teacher or me. In winter, there was an additional week* [on the topic of] *wood only with the 3rd grade middle school (8th grade) (working in the forest, chopping wood, learning measurements).*
>
> *(RES07)*

The experience is novel for the children. Some farmers state this is due to "Because the participants can try out new things themselves" (RES11) and "Every farm is a treasure chest; to discover and to be very close to animals, in a playful way and having a lot of fun—where else do you get this chance?" (RES06).

Moreover, children are in contact with nature and animals and with rural people and lifestyles (Figure 2). Providers of educational services educate the children according to natural pedagogy and transmit their culture of loving nature and living with the seasons: "respect for the landscape and culture, I think you can give the children an idea" (RES03) or "because we are a sheep and goat farm . . . in the season we do felting together [with the children], that's a pleasure for all" (RES02). Farmers are motivated by pedagogical reasons: "I would like to create awareness of nature and promote solidarity with nature" and "I would like to make it easier to access knowledge about nature and a healthy lifestyle" (RES04). The farm environment provides natural elements and a safe environment; children can move, hide from one another, and play freely, as stated by one respondent.

Information is mostly about agricultural work, specifically about mountain pasture management and small-scale agricultural activities (Figure 3), and respect for nature. From this perspective, this farmer's statement is particularly significant: "I wanted to open my farm to children and to let them get a taste of life here on the farm. Also to develop respect for humans and animals, to see how healthy food is manufactured and how it tastes" (RES06). Other statements underline the importance of awareness and solidarity

FIGURE 2 Farmers show the children how to behave with farm animals. (Photo courtesy of Südtiroler Bäuerinnenorganisation, by Florian Andergassen)

FIGURE 3 The farming families teach the children how to make cheese. (Photo courtesy of Südtiroler Bäuerinnenorganisation, by Armin Huber)

(RES04), of expanded access to knowledge (RES04), or "about rural lifestyle and helping children to appreciate nature" (RES14)).

As Van der Ploeg (2008) stated, farmers use the farms' internal resources (rooms, animals, gardens, etc); investments are limited to small reconstruction interventions and to the financial and time investment (€ 390 for 104 hours of lessons) into the required training course for the family member involved. On the basis of an agreement between the province of Bolzano (which regulates agricultural activities, including social farming, by law) and the trade association (which represents the farmers), fees for participating in the educational initiatives are paid by participants and partly subsidized by public bodies. In general, however, farms do not recoup their investment, and in the few farms that do it usually takes at least 6 months. Revenues do not contribute much to the total turnover. Approximately 70% of respondents reported revenues of approximately 5% of turnover. Disadvantages relate to logistics ("My farm is far from the city" [RES13]) or structural constraints ("I have limited space" [RES12]).

Social farming and its educational services as drivers for the transformation of (agri)-cultural values

Farming families in South Tyrol are traditionally extended families, sometimes consisting of even more than 3 generations, with the addition of farmhands and domestic help (Giuliani et al 2017). In recent decades, the number of people employed in agriculture has decreased. With the provision of educational services on farms, farms returned to life; many people now come together on the farm, for example, "we host up to 20 children" (RES08).

Caring for others is traditional in the farming community. This is maintained in an innovative way through educational services on the farm. Farmers recognized the personal benefits: "I love children" (RES07) or "For me personally, the work with the Waldorf pupils was very instructive, because I experienced working with the young people for 3 years" (RES07). Getting money for those services is beneficial but not essential for the farm's survival: "Fees are so low and in most cases they barely cover the costs of the service" (RES13). This suggests that the intergenerational exchange between farmer and pupils is important to all participants. Economic benefits are less relevant and do not constitute the main reason for providing this service.

Educational services shift the traditional roles of each member of the farming family, especially those of women. Only 40% of the respondents claimed that the services are offered exclusively by the women farmers. In the remaining cases, women farmers and their spouses are equally engaged. Other people help them: in most cases, parents-in-law and specifically sons. Young family members are the most enthusiastic and most active on the farm. Farms providing educational services have a social contact point, where farmers, parents and children get together and farms

TABLE 2 Impacts of providing School on the Farm for respondent farms.

Activity	Impact
Time allocation for traditional farming activities	Did not change significantly because of the limited time dedicated to School on the Farm (not more than 10 events/year, with 2–3 hours of preparation/event)
Time allocation for social interactions with family members, friends, acquaintances	Did not change significantly because of the limited time dedicated to School on the Farm (not more than 10 events/year, with 2–3 hours of preparation/event)
Social relations of farmers	Establishment of social relations with service users (children, parents, and teachers) Establishment of social relations to other farmers participating in training courses
Social life on the farm	Revitalization of the farm, farm returns to being a focus for social encounters, where farmers, children, parents, and teachers meet
Traditional (agri)-cultural values, norms, behaviors	Agricultural lifestyle and social values of farmers are passed on in an innovative way Traditional gender roles on the farm are challenged

cooperate with schools: "we collaborate with schools sometimes during the year" (RES11) or "we define the activities some weeks before the visiting together with the educators" (RES01).

Time dedicated to the service provision and preparation is limited. Therefore, School on the Farm did not affect traditional farming tasks significantly: "I dedicate about 2–3 hours to the preparation of each visit" (RES04) or "Sometimes, I prepare the visit alone; other times, my husband helps me" (RES15). None of the interviewees claimed to have less time for spontaneous social interactions with neighbors and friends, as the time dedicated to School on the Farm is limited. Interactions with people outside of the farms are stimulated by the participation in classes to obtain the certificate, which is a prerequisite for School on the Farm activities (Table 2). Participation in these courses is considered positive, an occasion to interact with other farmers and gain pedagogical knowledge. The majority of respondents do not have any previous pedagogical training and have not worked in this field before.

Discussion

Social farming helps to sustain the (agri)-cultural values of mountain farming, through the delivery of educational services in addition to the family farm business. These services help to maintain values such as respect for nature and perseverance and to disseminate them among children, who are increasingly eager to directly interact with animals and plants and to learn.

At the same time, farm-based educational services transmit famers' sense of family (Vogel and Wiesinger 2003), while also promoting a fundamental change within the farming family structure. As these activities are mainly carried out by women farmers, sometimes with their husbands and sons, educational services contribute to breaking down traditional farming families' patriarchal value system. Through their provision, women farmers generate a personal income and have their own field of action on the farm, where they feel responsible (Annes and Wright 2015). An increase in gender equality may decrease outwards migration of women from mountain areas (Oedl-Wieser 2017).

The provision of farm-based educational services also influences farmers' mentality and identity. Success in these services requires a service-oriented attitude that is not traditionally part of agricultural values and identity (Sharpley and Vass 2006). This service orientation is also important for the functioning of School on the Farm. Farming families recognize that society increasingly appreciates the transmission of rural lifestyles and agricultural values, such as respect for nature (Bijker 2013), and have expanded their skills to offer service users a professional, interesting, and customer-specific program.

These services promote the preservation of social values in a more profitable way. In the past, farming families used to care for elderly relatives or even their farmhands without remuneration, as a matter of course (CIPRA 2007). With the remuneration of social services, farmers are able to cover service costs and have a greater chance of maintaining farming in mountain areas through gaining additional income for the farm household. This is relevant as a functioning farm is a prerequisite for transferring the (agri)-cultural values in times of modernization and farm abandonment and with farmers' limited time capacities. However, the results show that the income gained from education programs is only a small contribution to the total farming income. Therefore, social farming as a household strategy for farm survival should be discussed and studied further.

The chance to gain new competences and skills through training opportunities, essential for the provision of social services, broadens the perspectives for the future in an agricultural business, for young farming generations in particular, and opens up an interesting new employment field. This possibility of diversification could facilitate farm succession, making agricultural work more appealing to women in particular (Seuneke and Bock 2015).

Due to the manifold tasks on a farm, the farming family has to organize their time and priorities economically. Educational farming requires additional time capacities. It is essential to avoid overloading the farming family (Fieldsend 2008) to preserve the social sustainability of agriculture over time. In the investigation, School on the Farm farmers did not feel stressed by the activity, because it requires only a little time. Nevertheless, if the service is expanded to more educational events, work overload must be considered.

The provision of educational services on farms is a model that could be transferred to other regions, to preserve mountain farming and its cultural values. Important features of such a model include the training of the service providers to guarantee the quality of the service offered. The cooperation between farmers and schools enables interesting educational programs for pupils to be established. Cooperation between farmers in associations is a promising way to organize marketing and bureaucracy efficiently. The financing of these programs can represent a hurdle to their implementation; the case of South Tyrol shows that the division of costs between service users and the public sector guarantees enough support. Certainly, the province investigated is a prosperous area that can provide enough budget to support such initiatives. For other regions, financing these services on farms may be a major challenge that calls for innovative funding solutions.

Conclusion

Providing educational services in mountain areas is an effective strategy for transmitting traditional knowledge, respect for nature, and social values. Specifically, it enables farmers to revitalize their farms and old traditions: to reactivate traditional farming activities and production methods that contribute to educational programs and therefore to the maintenance of (agri)-cultural values. The strategy represents a shift to postmodern values, such as professionalization of farmers and the commodification of the transfer of traditional agricultural knowledge. Today, as postmodern values enter the farming community, the provision of farm-based educational services can represent a promising field for self-realization in agriculture, specifically for female farm members. In summary, the provision of educational services combines the preservation of traditional values that foster social cohesion and nature conservation with the transformation of constraining factors, such as patriarchy and the lack of income and training opportunities, within the farming family. As such, it adapts well to current socioeconomic challenges experienced in mountain regions and helps to maintain small-scale family farms, which are the upholders of (agri)-cultural values.

In conclusion, we recommend the following measures to decision-makers, to foster social farming and especially the provision of educational services on farms in mountain regions:

- Raise awareness of the potential of social farming and especially of educational services to transfer (agri)-cultural values to society and to give farmers, particularly women farmers, a new field for self-realization and income generation.
- Provide adequate training opportunities for the farming family to enable them to professionally transfer their traditional knowledge to service users in an interesting and appealing way.
- Define quality criteria for educational services on farms, including training prerequisites for farming families, safety measures, and hygiene, to guarantee a professional service.
- Facilitate horizontal cooperation among farming families offering educational services for an efficient and professional organization of marketing, matching supply and demand, and bureaucracy.
- Provide a supervision or mentoring point, where farming families can receive advice on legal, administrative, organizational, familial, and pedagogic issues.
- Foster vertical cooperation between the agricultural and the educational/social sectors to shape offerings according to the needs of service users.
- Provide financial support for the use of the educational services, to enable all pupils to attend the programs.
- Define a stable legal framework, such as the Italian national law on social farming.
- Include specific measures to support educational services provision (financing, matching, cooperation) in the Rural Development Program.

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