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# BUILDING A MULTIFUNCTIONALITY AGRICULTURAL HOUSE AND INDICATORS FOR SOCIAL/HEALTH FARMS

JEL classification: Q10, Q18, O13

Francesco Contò\*, Mariantonietta Fiore\*, Assunta di Matteo\*

**Abstract.** *The importance of multifunctional farming activities is clearly demonstrated by the significant changes made to the EU's Common Agricultural Policy (CAP) in its rural development policy. Multifunctionality has received a lot of attention over the last decade from scholars and policy-makers. A new rural paradigm stands out as the interrelationship between agriculture, landscape protection and social services (e.g. Social Agriculture, Teaching Farms, Social Farms, Horticultural therapy and so on). Models based on forms of solidarity or trust could be a crucial driver for fostering the competitiveness of rural areas. Evaluation tools are needed for analyzing the current system and for improving the social approach. The aim of this paper is to provide an analysis of the educational and social opportunities*

*deriving from multifunctional agriculture. Furthermore, we define indicators focusing on the social/education dimension. The paper is structured as follows: after a review of literature and policies on the social/health dimension of rural development, we investigate the role of didactic agriculture and the 'helping relationship' and so we define new Non-Commodity Outputs (NCOs). In addition, starting from the house of functions model by Fleskens (2009), we define a Multifunctional Agricultural House taking into account the educational and network dimension of an agricultural system; we then select indicators having an educational, social and helping dimension. Finally, conclusions are drawn.*

**Keywords:** *multifunctionality; social/health farm; rural development; indicators; NCOs*

## 1. Social/Health dimension of agriculture

In recent years, European political, professional, and scientific interests in care farming - based on promotion of human health and social benefits - have been growing. European agriculture and rural areas are facing multiple socio-economic changes, including a transition from an agriculture-based to a service-based economy (Dessein *et al.*, 2013). Generally speaking, social and human indicators (UNDP, 1990, 1997; Anand and Sen, 1997) have taken into account quantitative elements only (Pressman and Summerfield, 2000; Roemer, 2006).

In particular social dimension and social support by the farmer appear more and more important (Berget *et al.*, 2011; Sempik *et al.*, 2010; Hine *et al.*, 2008) and better encapsulate the complexity of agricultural and rural change into a new way of looking at the future of agriculture (Wilson, 2007). The social dimension of agriculture and the important role it plays in the lives of small farmers all the world over is recognized widely (Hermans *et al.*, 2010). In addition, the

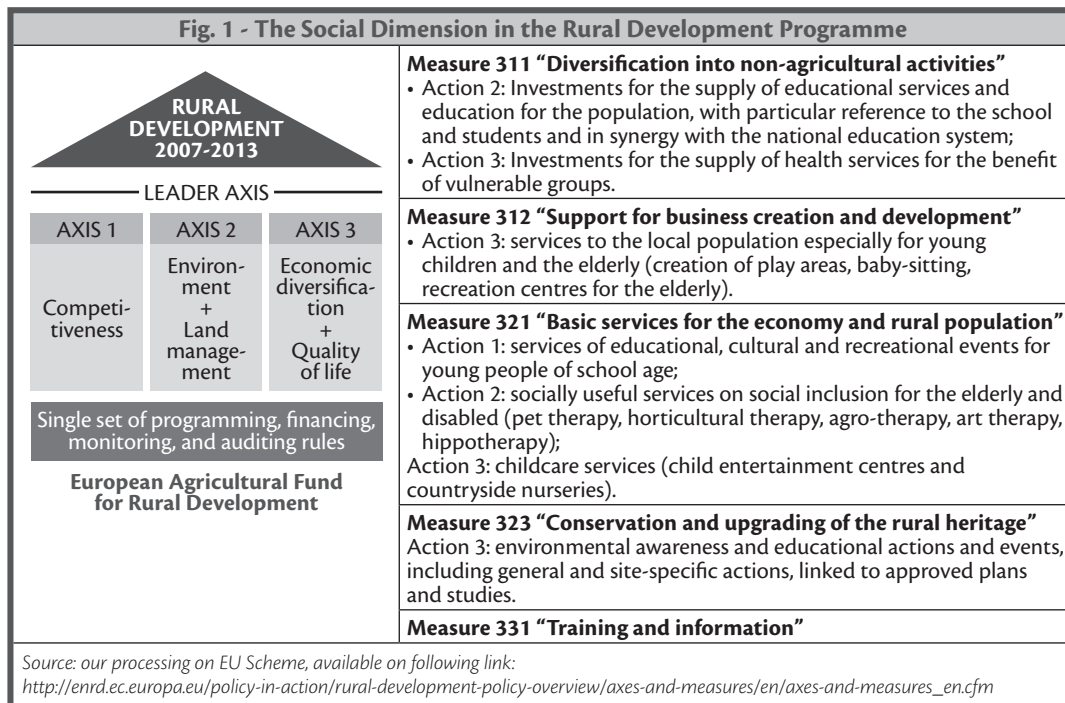
\* Department of Economics, University of Foggia (Italy).

importance of a context conducive to social dimension in rural areas (Dessein *et al.*, 2013; Poeg *et al.*, 2000) and to altruism and so on (Nussbaum, 2002; Sen, 1999; Gintis and Khurana, 2008) stands out. In this framework, the EU in recent years has focused its attention on multifunctional farming activities fulfilling the combination of functions required by society: multifunctional land use and the creation of multiple values in the rural areas are thus creating new challenges (Jongeneel, 2008; Rogge *et al.*, 2013). In fact multifunctionality has received a lot of attention from scholars in the last decade (Andersen *et al.*, 2013; Barbieri and Valdivia, C. 2010; Potter *et al.*, 2002; Bernard *et al.*, 2006; Freshwater, 2003; Grouiez, 2011; Ohe, 2011; Contò, 2005 and 2010; van der Ploeg *et al.*, 2009; Wilson, 2008; Kizos, 2010). Some researchers, for example, define multifunctional agriculture as a rural space which could develop multifunctionality beyond agriculture, i.e. a complete loss of the productive function of agriculture (Fleskens *et al.*, 2009). On the other hand, the OECD (2001, 2003; 2005) presents a thorough analysis of the multifunctionality concept from an economic perspective; in fact OECD highlights the opportunity for a country to maximize positive externalities, minimize the negative ones and make sure that the fusion of the outputs derived from agriculture corresponds to the needs of society. Within the latter, an innovative combination between agriculture and social development gives rise to so-called ‘Social Agriculture’ (SA) that is an agricultural model based on closer complementary relationships between rural and urban areas: SA uses agricultural resources to carry out certain social activities which include the service user and the institution, such as introduction to work, rehabilitation, promoting mental and physical health etc. (Foti *et al.*, 2013; Sempik *et al.*, 2010; Dessein, 2008). The term Social Agriculture or Social Farming is often used interchangeably with other concepts such as farming care, farming for health or green care (ENRD, 2010). Green care can be defined as an umbrella term, whose aim is the use of nature to produce health, social or educational benefits (Sempik *et al.*, 2010). The interrelationship between agriculture, landscape protection and social services (e.g. Social Agriculture, Teaching Farms Farms, Social Farms, Horticultural therapy and so on) introduces opportunities for a new rural model (OECD, 2006) linking sustainable economic, environmental and social targets and motivations. So the countryside “cultivates” and promotes values (Di Iacovo and Ciofani, 2005).

At EU policy level also, the social approach is in evidence. Figure 1 summarizes the measures of Rural Development Programmes, including opportunities for Multifunctionality in a social dimension. Axis III of the National Strategy Plan for Rural Development - *Quality of life and diversification* – and the activities of the Rural Development Plans confirm the importance of the social dimension within the context of practices and professions in agriculture in order to promote improvement in the quality of life. As for the EAFRD (European Agricultural Fund for Rural Development), for Regional Policy and Cohesion (ERDF - European Regional Development Fund) and for ESF – (European Social Fund), the National Strategic Framework reveals the ten priorities that give relevance to Social Agriculture. It takes into account the priority 1, improvement and development of human resources that will support the training of professionals. This can be applied to those who intend to innovate through the acquisition of skills in the field of Social Agriculture and activities associated with it, such as the farm and the farm office. Priority 1, relating to social inclusion, services for quality of life and the attractiveness of the region, aims to enhance social capital underutilized in urban and rural areas by improving the quality and accessibility of services of social protection: training and learning systems are therefore aimed at vulnerable people including of course, the disabled and those who are not independent.

As may be seen, Axis 3 is aimed at enhancing the quality of life in rural areas and diversification of the rural economy, offering support for developing local infrastructure and human capital

in rural areas, thus improving the conditions for growth and job creation in all sectors and the diversification of economic activities. For example, the main objective of Measure 323 is to improve the quality of life in rural areas by undertaking tangible and intangible investments that serve to reverse the trends leading to ecological, economic and social decline, thus making rural areas more attractive to live in and to visit. Finally, the social dimension aims at revealing a sense of ownership and civil pride in the rural community, ensuring the sustained use of the resources of rural heritage for economic and social benefits.

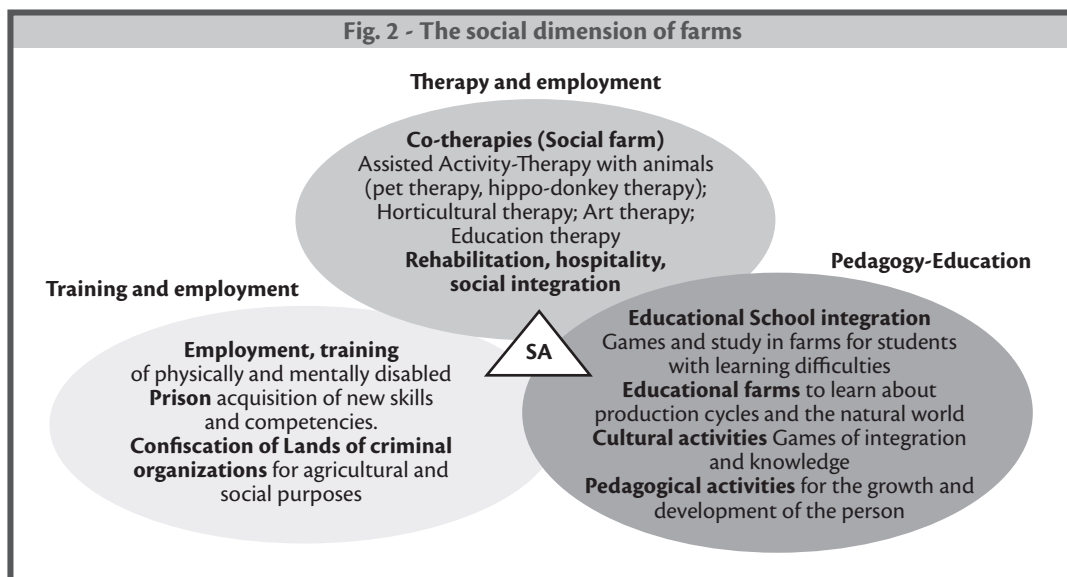


### 1.1 The educating and helping relationship in agriculture

Agriculture has always had a crucial role within society as the vast historical and sociological literature demonstrates (Foti *et al.*, 2013). In fact agriculture has played a role in education and in educational space, has always induced the farmer to learn how to take care of the land, crops, live-stock, tools, and of all that is in the agricultural area. Agriculture has always led children to play, as they try to catch grasshoppers, when finding nests, harvesting grapes; in agriculture children play and mimic the real educational space through gestures that allow free creative writing in airspace (Pesci and Mani, 2004) and land. Agriculture has always induced respect for the germination of life and has taught to satisfy hunger without any waste and in compliance with the earth itself, by taking care of the requirements of persons with special needs (Dessein and Bock, 2010). The educational role of agriculture is consolidated in its dimension of Multifunctional Agriculture and specifically in its role as Social Agriculture. With social farming, agricultural activities assume a role of tertiary nature and begin to provide a social service for the disadvantaged, by making the helping relationship explicit to people in a state of psycho-physical disadvantage (INEA, 2009; Finola

and Pascale, 2008; Di Iacovo and Senni 2006; Di Iacovo, O'Connor, 2009; Hassink and Van Dijk, 2006; Berget *et al.*, 2011). For example, in Ireland the use of agriculture and horticulture as an activity within or closely aligned with care settings such as the Mental Health Services and Intellectual Disability Services has a long history (ENRD, 2010). In farming for health, a range of services can be grouped in three main areas as can be seen in Figure 2, where social agriculture (SA) is the container and muse of a Territorial Multifunctional Network (TMN). For example, as regards 'Co-therapies' these are aimed at people with physical and mental disabilities and people with psychiatric disorders; as regards 'Rehabilitation, hospitality, integration', activities are aimed at groups with risk of social marginalization (people not self-sufficient, people with addiction, victims of violence, ex-offenders, socially disadvantaged). So rural scenery changes its appearance; with the introduction of the social approach, the farm becomes an educational farm, countryside nursery and countryside kindergarten, therapy centre, reception centre for disabled and/or elderly and/or people with a disadvantage. In this perspective, there is a need for interdisciplinary areas and skills on the farm, the farmer has therefore to manage a multi-functional firm including a team made up of pedagogists, psychologists, psychiatrists, educators. In addition, social farms facilitate the inclusion/integration of people with low bargaining power by adopting forms of corporate social responsibility (Senni, 2007). Those operating in social agriculture construct a level of protection which is flexible, lightweight and able to respond to the needs of remote areas, enabling innovative forms of local self-help aiming to care for the needs of local society. The helping relationship present in rural areas considers the human being in his entirety and complexity, where the dynamics of the same individual are influenced by and influence the (rural) territory. Giving help to the person means, therefore, helping the person to find within himself the resources to deal with difficult situations in a integrated context, taking into consideration the rural system to which he/she belongs, characterized by low population density and/or isolation. Helping a person in a rural setting supports development of the territory, human too. In this matter, agriculture can deal with both disadvantaged people and disadvantaged areas. Figure 2 shows the social dimension of farms that can be grouped into 3 areas: therapy and employment; pedagogy-education; training

Fig. 2 - The social dimension of farms



and employment. Social agriculture can amplify the advantages and reciprocal benefits in order to obtain social and environmental sustainability (Foti *et al.*, 2013).

So green care is seen as one of the caring and curing activities which farms can deliver (i.e. health restoration and protection, disease prevention and health promotion). Farmers may be involved as providers of the green (farm) environment but cannot be involved in the therapeutic process. Green care arrangements may take place but always under the responsibility of health professionals (ENRD, 2010). The farm-based promotion of human health and social benefits links two formerly distinct sectors with actors operating at different institutional levels (including care farmers, care institutions, farmer and care sector representatives, and representatives of the Ministries of Agriculture and of Public Health) (De Krom and Dessein, 2013). Some authors (Hassink *et al.*, 2013) define three major types of initiatives: (1) individual care farms; (2) regional foundations of care farmers; and (3) care institutions collaborating with groups of farmers at a regional level.

We thus have a critical point of intersection between different styles of life, social fields or levels of social organisation, where social discontinuities based on discrepancies in values, interests, knowledge and power, are most likely to be located (Rogge *et al.*, 2013). The socio-economic situation shows that the agricultural sector is diversifying with complementary activities, offering services for enhancing welfare. To become a social multifunctional farm, the agricultural enterprise must be willing to offer cultural, educational, charitable, training, rehabilitation, and employment for the benefit of vulnerable people. The rural environment is thus opened in favour of human development because the rural environment is an environment more suitable for the development of the individual than an urban environment (Di Iacovo and Senni, 2006). A recent research by Oliviero Ferraris (2011), shows that children want to have more and greener available space in which to play and move around (Di Iacovo and Ciofani, 2005). All these needs are easily met on the social farm. Several clinical observations and scientific studies show how the contact with nature and freedom of movement as well as play decreases the frequency of psychological problems in childhood and creates emotional states contrasting anxiety and depression and promoting learning. Another important consideration is that in a rural setting there is much more space to move that allows children to run and jump, with advantages for their psychomotorial activity and knowledge of space and body aimed at developing psychological well-being and self-knowledge not easily obtainable in an urban environment. Human development and respect for the land converge. Proximity and direct knowledge of social realities can develop new behaviours and new ways of thinking. By trying to exploit local resources, these actions offer new prospects for a territorial approach taking into account the needs and resources in the area. Social agriculture, with its pedagogical methodology, leads to social and educational renewal, and is a valuable tool that enhances the individual and their needs within a rural area (Di Iacovo and O'Connor, 2009). Social inclusion plays a crucial role in the revival of rural areas where the improvement in the quality of life is a necessary condition in order fully to exploit the human resources and the territory.

## **2. Defining new Non-Commodity Outputs (NCOs)**

Multifunctionality refers to the fact that an economic activity may have multiple outputs and, by virtue of this, may contribute to several societal objectives simultaneously (OECD, 2001). It can be explained via two approaches. One is to interpret multifunctionality as a



characteristic of an economic activity that has several activities with interconnecting outputs or effects. The second is in terms of multiple roles assigned to agriculture (OECD, 1998) and this is our starting point. The broad portfolio of products and services of multifunctional farms can be analyzed classifying the different agricultural function in three macro categories (Bassi and De Poi, 2012):

- productive functions: production of raw materials (farm core business), processing activities, production of traditional wines and foods, hospitality services such as accommodation and catering, on-farm sales, bio-energy production, food security etc.;
- social functions: recreational, cultural, educational and therapeutic activities, social employment, maintenance and transmission of traditions, social cohesion, etc.;
- environmental functions: organic production, landscaping and protection of biodiversity, reproduction/consumption of natural resources and so on.

Farmers can choose their style of production and land use, that are the “key drivers” of change: when land is converted from one use to another or from a conventional to a non-conventional style of production such as that with social activities, a change occurs in the vector of inputs (means of production and workers) and in the vector of outputs including public goods (Eboli *et al.*, 2010). So a new role has been and can be attributed to the primary sector in terms of multifunctionality, which means that socio-agro-environmental policies promote non-commodity outputs (NCOs) jointly produced with agricultural commodity outputs (OECD, 2000a; 2003; 2005; 2006; Capitanio and Adinolfi, 2009; Knickel and Peter 2005; Contò, 2005). Because the non-commodity outputs detain characteristics of public goods, there is no private or partial market reward (Bryden *et al.*, 2011) and therefore the State has a role in promoting NCOs (Capitanio and Adinolfi, 2009) together with all stakeholders. In Europe, within the EU Rural Development Scheme framework, there are several examples of promoting: a “European” subsidy for these programmes: the English Countryside Stewardship Scheme, the German MEKA programme, and the French «La prime à l’herbe»; TOP-MARD (Towards a Policy Model of Multifunctional Agriculture and Rural Development) (Capitanio and Adinolfi, 2009; Bryden *et al.*, 2011); POMMARD (Policy Model of Multifunctional Agriculture and Rural Development) encompassing the multifaceted interrelationships between the several public and private ‘functions’ of farming and farm households, regional economic development and quality of life, demographics and public policies, enables the solution of the ‘additionality’ problem in policy analysis (Fleskens *et al.* 2009; Johnson *et al.* 2008). Consequently multifunctionality includes socio-cultural and also environmental functions (Ohe, 2007).

In particular, care farms offer day care, supported work- and/or residential places for clients with a variety of disabilities (people with mental illness, addiction, intellectual disabilities, older people, children, problematic youth, and long-term unemployed) improving the quality of life of clients (Hassink *et al.*, 2013, 2007; Di Iacovo and O’Connor 2009; Aznar-Sánchez *et al.*, 2011). The possibility of being part of a community, an informal context and useful and diverse activities within a green environment make care farms an appealing facility (Hassink *et al.* 2010); furthermore this chance increases relationships of solidarity, trust, mutual cooperation (proximity) that are non-commodity outputs. The perceived benefits of care farms lead to physical, mental and social wellbeing, to positive emotional states and to the rooted idea aiming at social inclusion/integration. In *Table 1* we define some examples of NCOs starting from the classification by Bryden *et al.* (2011).

Tab. 1 - Some examples of NCOs from farming

NCOs	Type of Market
Spread of Solidarity, Trust, Proximity	Non market
Social inclusion/integration Idea	Non market
Positive emotional states	Non market
Life Pedagogy-education	Non market
Psychology well-being	Not market
Wellness	Not market
Environment and landscape quality	Not market
Quality of life	Non market
Sympathies (Sen, 1999)	Not market
Public access to countryside (Bryden et al., 2011)	Non market
Landscape quality (Bryden et al., 2011)	Non market
Water (quantity and quality) (Bryden et al., 2011)	Non market
Soil quantity (Bryden et al., 2011)	Non market
Air quality (Bryden et al., 2011)	Non market
Wildlife habitats (biodiversity) (Bryden et al., 2011)	Non market
Greenhouse gases/carbon sequestration/renewable energy (Bryden et al., 2011)	Partly market
Cultural heritage (Bryden et al., 2011)	Non market
Food quality (Bryden et al., 2011)	Partly market
Food safety (Bryden et al., 2011)	Partly market

Source: our processing on table by Bryden et al. (2011)

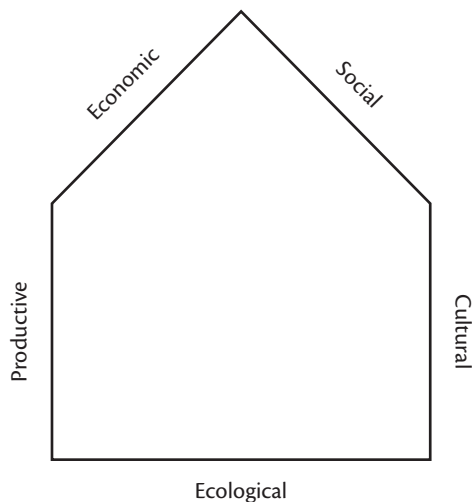
The first NCOs in the table are identified in the “evocative” sense too (see NCOs such as ‘Spread of Solidarity’, ‘Trust’, ‘Proximity’, ‘Emotional states’, ‘Psychology well-being’ and so on) in order to highlight the crucial role of Social agriculture/Care farming on human development and well-being as well as rural development. A crucial factor defining rural areas is the dominance of livelihoods/economies based on agriculture combined with a strong relationship with tradition, high value of family ties, scales of social aggregation, and a framework given by landscape (Wehner *et al.*, 2014). The inter-linkages among economic, social and environmental features determine both the complexity and the dynamics of rural development. So care farming combines agricultural production, healthcare and social services generating NCOs that can strengthen the proper assessment and aggregation of social welfare.

### 3. Multifunctional house of function

Here we refer to the ‘House of functions model’ by Fleskens *et al.* (2009) which comprises five functions: (i) ecology: the basis of the living space (comparable to the concept of ecological footprint); (ii) production: provides us with products from nature – links ecology to economy; (iii) economy: the revenues of the system; (iv) society: the social dimension of the system; and (v) culture: the window on life – links ecology to society. These functions can metaphorically be conceived as constituting the five lines of the silhouette of a house (Fig. 3).



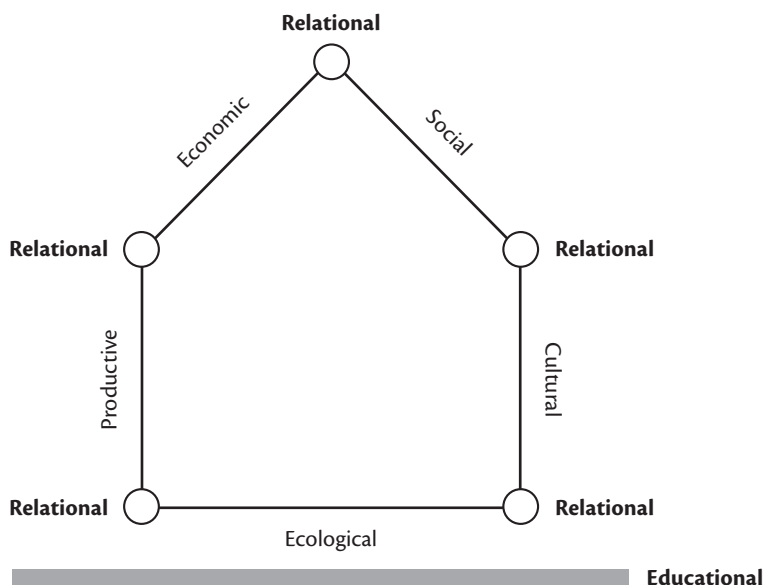
**Fig. 3 - The House of Functions**



Source: Fleskens et al. (2009)

Starting from this model, we build the ‘Multifunctional house of functions’ in order to take into account the educational and relational functions of multifunctional agriculture. We add two more functions; (v) the educational dimension to support all functions; (vi) the relational dimension: crucial ‘junction’ between different functions and stakeholders involved in care farming. Each set of functions has a place in the House (Fig. 4). As regards function (v), a house will conserve its functionality and operability only if the area of abutments has an adequate load-bearing capacity (educational dimension) essential for durable stability. The function (vi) underlines the importance of nodes (relationships) between structural elements (functions) and several stakeholders that are required for implementation of care farming. Culture links ecology to society and production links ecology to economy; economic and social functions are linked at the ridge of the roof. Education is the basis of support to all functions: nodes (relationships) are crucial and are activated by stakeholders with a bottom-up (LEADER) approach; the aim is to develop an area by using its endogenous development potential. Under Art. 61 of Regulation (EC) 1698/2005, the Leader approach is characterized especially by the concept of multi-sector strategy, based on the interaction between parties and projects of different sectors/functions of the local economy and on the implementation of innovative approaches, cooperation between projects, driven by bottom-up approaches aimed at sustainable rural development, with a focus on local partnership and network exchange experiences.

Fig. 4 - The Multifunctional House of Functions



Source: our processing on House of functions model by Fleskens *et al.* (2009)

The focus is on the spirit of responsibility and the importance of evoking choices by House (Fleskens *et al.*, 2011) and on the crucial role of the education function and on functions of networking several stakeholders. Management of multifunctional land models is by several components which structure development deriving from the new rural paradigm (OECD, 2006); in this respect, the need to define indicators concerning the economic and social/health dimensions of agriculture and rural development stands out. Several studies provide indicators (OECD, 2000b and 2000c; EU Commission, 2001; Riley, 2001; Reed *et al.*, 2006) based on local data such as a practical method to monitor progress towards aims and new models. However, since there are many conflicting frameworks proposed to develop indicators, it is unclear how best to collect these data (Reed *et al.*, 2006). Here we select from existing literature and propose possible indicators with a special look at the health and social dimension and not only. There is no unique way of defining or measuring the “attractiveness” of rural areas but important aspects include the level of income, the possibilities for employment and new opportunities for income in these areas, the physical infrastructure, the social capital, the quality of the environment, and so on (Contò *et al.*, 2012). Far from being exhaustive, Table 2 below gives an insight into the main indicators defined in this work and selected by an analysis of the scarce existing literature and in particular of the RDP for Wales 2007-2013; further steps will be needed in order better to define the construction methods of selected indicators. As is evident, indicators and methods of construction aim at evaluating the green care dimension of rural areas and can be used, where available. Further research should focus on the construction of indicators across different areas, regions, countries. These evaluation tools can be very interesting in the light of the ongoing transformations within the agricultural sector (from productivity towards multifunctional practices) and within the health and social service

sector (from highly institutionalized to community care) (de Krom and Desseim, 2012). The availability of data needed to calculate the indicators in each rural area depends on the capacity of the statistical services.

<b>Tab. 2 - Main indicators focusing on the education/networking dimension</b>	
<b>Objective</b>	<b>Indicators, method of construction</b>
Promoting the integration approach between the city and villages	<b>Training course in rural areas</b> Number of courses per year in proportion to square meters of rural areas
	<b>Recreational activities promoting the spread of culture and tradition in rural areas</b> Number of activities per year in proportion to square meters of rural areas
Improving quality of life and social inclusion of people, especially disadvantaged people in rural areas, focusing on the relationship between humans and the environment	<b>Pet therapy, hippo-therapy, donkey-therapy, horticultural therapy</b> Numbers of therapies carried out in rural areas per year on numbers of total patients Number of patients beneficiaries of social therapies per year on numbers of total patients
	<b>Sociality of rural areas and urban areas</b> Number of Voluntary Organizations relative to total rural population Number of Voluntary Organizations relative to total urban population
	<b>Accessibility of rural areas</b> Average time required to reach the major centers in minutes
	<b>Presence of young people in the area</b> Index of youth in rural areas (ISTAT, 2012) Index of Human Isolation (Contò et al., 2012) Number of cooperatives created by young people under 40 years of age launched per year weighed on total youth population in the considered area (WWEC, 2006)
	<b>Conferences, workshop, seminars, reports, newsletter (named 'events')</b> Number of events in relation to % of rural population in the area considered Extent of Participation (numbers of courses/numbers of farmers) in Training and Landcare (Eu Commission, 2001)
Promoting the integration of business-school educational training aiming at rediscovery of ancient crafts and antique farm tools	<b>Courses on ancient crafts and antique farm tools</b> Numbers of courses/numbers of farms Gross number of jobs safeguarded (WWEC, 2006) Number of individuals retained, regained or attracted to the rural area (WWEC, 2006)
Promoting opportunities for meetings between members who participate in social and educational services and local farm workers	<b>Meeting among LHU (Local Health Units), Schools, University, Hospital, Church and local farm workers</b> Numbers of meetings per year in relation to total rural population Percentage increase in non-agricultural gross value added in supported farming households and number of new non-agricultural products or services launched by a farming household member (WWEC, 2006)
Promoting and spreading awareness amongst different stakeholders for diversification of business opportunities in the field of multifunctional agriculture and rural development	<b>Conferences, workshops, seminars, reports, newsletter</b> Number of Conferences, number of workshop, number of seminars, number of reports, Number of newsletters in relation to rural population Number of seminars, workshops & conferences attended by members of farming households to encourage diversification into non-agricultural activities in relation to rural population
	<b>Integrated projects in multifunctional agriculture</b> Number of integrated projects financially supported to diversify into non-agricultural activities (WWEC, 2006)

Objective	Indicators, method of construction
Encouraging reproduction of the values of solidarity, reciprocity and mutual support	<p><b>Programs of communication, information and training, awareness of land, the participants of the third sector (social) issues related to multifunctional agriculture (agricultural office)</b></p> <p>Number of events per year  Number of cooperatives created (WWEC, 2006)  Number of cases of co-operation between farms (EU Commission, 2001)</p> <p><b>Events associated with various local folk traditions</b></p> <p>Number of events per year</p>
Promoting the training process for local operators and stakeholders in terms of building a network of new skills and competences	<p><b>Training process and new professionalism</b></p> <p>Number of seminars, workshops &amp; conferences attended by farming household members  Number of d hours of vocational training supported (EU Commission, 2001)  Gross number of jobs safeguarded (WWEC, 2006)  Number of individuals regained or attracted to the rural area (WWEC, 2006)</p>
Promoting the application of skills related to funding programs concerned with the integration of multi-regional development	<p><b>Projects involved in multifunctional agriculture</b></p> <p>Number of members of farming households financially supported to diversify into non-agricultural activities  Gross number of jobs created (WWEC, 2006)  Number of individuals advised to support the creation of a new micro-enterprise (pre-start) (WWEC, 2006)</p>
Encouraging the preservation and maintenance of the environment	<p><b>Farms whose activity is directly related to the production of environmental and cultural goods</b></p> <p>Number of farms involved/Numbers of total farms</p>
<i>Source: our processing</i>	

The characteristics and the complexity of the concept of the social farm, as well as the fact that it reaches out into the future, make multifunctionality a concept which gives a certain direction for policy-making rather than serving as a benchmark that could be precisely defined. It seems difficult to identify indicators which allow judgement about whether a certain process contributes to movement in the right direction. It is not easy to define indicators that monitor progress towards new models with new dimensions, new policy choices. Further research should be better focussed and structured on the construction of indicators and across different areas, regions and countries. These evaluation tools can be very interesting in the light of the ongoing transformations within the agricultural sector (from productivity towards multifunctional practices) and within the health and social service sector (from highly institutionalized to community care) (de Krom and Desseim, 2012). The availability of data needed to calculate the indicators in each rural area depends on the capacity of the statistical services: indicators must be elaborated using data available on related variables or other methodologies.

## Conclusions

Modern agriculture, in addition to the vital function of food production, contributes to the formation of the landscape, to the sustainable management of renewable resources, to the improvement of the quality of life and to human development in rural areas. This characteristic of multifunctionality, although common to other sectors of the economy, has special importance in agriculture for the weight of these “joint products”. Ensuring stability of agricultural supply and promoting sectoral productivity are the objectives of Article 39 of the Rome Treaty

(now Article 33 of the Lisbon Treaty) that, combined with the new opportunities discussed, can generate renewed and stable policies for the farm sector and for rural areas (De Castro *et al.*, 2011). The complexity of issues related to the food system requires integration within systems of knowledge in agriculture (research, training, dissemination). A social, multifunctional approach improves the relevant knowledge and increases the participation of farmers, thus reinforcing the creation of new networks of agricultural knowledge. The concept of multifunctionality becomes a broadly used term both in the CAP and in the Doha Round of the WTO negotiations, as well as by researchers and policymakers. The social approach to the new rural paradigm helps towards reconsideration of the human habitat, and an ongoing process towards an improvement in terms of quality of life. The decline in agricultural employment in rural areas entails a separation between the place of residence and the place of work. Social inclusion and helping relationships play a crucial role in revitalizing rural areas where the improvement in quality of life is a necessary condition in order fully to exploit human resources and territory. So green care can be a new source of farm income and one of the multiple new functions that agriculture can fulfil in an urbanizing society; in general there is a lack of coordination among Social Farming practitioners and poor knowledge of the opportunities offered by the RDP, so SA falls into the “middle ground” between welfare and agricultural policy (ENRD, 2010). It is crucial to highlight empirical evidence of studies and research. In this regard rural development can become a “social inclusion policy”. The aim of this work has been to provide an insight into the role of Social Agriculture. Far from being exhaustive, our analysis utilized a multidisciplinary approach in order to capture the essence of Green Care. The present paper puts the focus on the importance of green care activities and on indicators concerning the social/health dimension of agriculture and rural development. As a general requirement, indicators have to be policy-relevant (OECD, 2001; EU, 2001) and can guide policy-makers in their decisions; furthermore, indicators should help to identify the policy fields where action is needed. Scholars (Di Iacovo and O'Connor, 2009) argue that an improvement of knowledge and awareness about care farming is considered the key to promoting a shared recognition of care farming amongst agricultural and health care agents, and as well as following up institutionalization of care farming arrangements in policy frameworks. We have provided an extension to the multi-level dimension of agriculture, as asked for in EU policies and in previous studies (e.g. Andersen *et al.*, 2013; Barbieri and Valdivia, C. 2010; Bernard *et al.*, 2006; Grouiez, 2011; Ohe, 2011; van der Ploeg *et al.*, 2009; Wilson, 2008; Kizos, 2010). In line with these studies, we argue that a new rural paradigm stands out and, furthermore, we highlight that this paradigm strengthens solidarity, trust, proximity, emotional states, psychological well-being such as NCOs. To conceptualize and formalize we have defined the Multifunctional Agricultural House starting from the House of functions by Fleskens (2009) by taking into account the educational and relational dimension of the agricultural system. Moreover, we have used insights from existing policy reports and scientific studies in order to define indicators focusing on the educational/social dimension. Our study thus contributes to the development of evaluation tools which are necessary for analyzing and for improving the social approach. Indicators have to be appropriate to the context and adapted across regions, areas and countries in order to ‘cultivate’ values (Di Iacovo and Ciofani, 2005). The success of initiatives is linked to the commitment and competences of the farmer, to the creation of alliances, to the quality of the new regional organizations and to the implementation of care farm services in care organisations. The relative importance of the factors varies between the different types of initiative, be they on a local or regional level (Hassink *et al.*, 2013; Wiggering *et al.* 2006). In fact, the char-

acteristics of green care depend on regional, local and national conditions and so it is hard to define common indicators. We therefore underline the importance of analysing further details of the methodology for constructing indicators. In future studies, we will test our hypothesis by analyzing initiatives in care farming and evaluating them by means of the indicators elaborated. Much more remains to be done.

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