

Research Article

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Analysing social networks in rural development: a gender approach

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Abstract: Gender issues are of growing importance in the European and Spanish rural areas. The literature reflects that women have traditionally been linked to marginal positions in economic life, social activities and even political representation at the local level. Local development programs that have been implemented in Europe's rural areas have had among its objectives the improvement of the articulation of local communities. To reach them, it has been fostered, among others, a gender perspective, promoting both productive activities led by women and their participation as stakeholders in the management and decision-making structures of such programmes. In this paper, we addressed this latter issue. The study focuses on a sample of 30 relevant social actors linked to the implementation of a rural development programme in the county of Rincón de Ademuz (Valencia, Spain) from the mid-1990s to recent date. Through Social Network Analysis, gender differences and women's roles within the social network are studied in two differentiated periods. This analysis reveals that despite women representing a minority among the relevant stakeholders, their level of participation, prestige, position in the network, and frequency of relationships, among other indicators, are comparable with respect to those sustained by men. Therefore, it cannot be said, as reflected in some of the literature, that women tend to occupy marginal positions in the structure of social relations of local development programs.

Keywords: Social Network Analysis (SNA), rural development, rural women, gender perspective, county of Rincón Ademuz (Valencia-Spain)

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Introduction: local development policies, social capital, and women in rural areas

As some European countries have experienced before, the economic growth experimented during the 1960s and 1970s in Spain had important consequences for the rural areas. On the one hand, the productive specialisation of a part of the Spanish agriculture had as a consequence the development of the most competitive and populated coastal areas. On the other hand, and as a consequence of internal migration, interior rural areas showed a demographic decline and an economic and social disruption. Currently in Spain, these disadvantaged rural areas represent a large part of the country in terms of surface and are still a significant portion of the total population (Esparcia, 2011a; Pallarès-Blanch, 2015).

Since the early 1990s, the European Union (EU) and national institutions have promoted policies aimed to stop and reverse these processes. These policies have two major orientations: first, to revitalise local economies through local development initiatives, focusing strategies on endogenous resources (physical, economic, environmental and human); and second, to focus on the empowerment of local societies, partially through the effective articulation of its institutions. In this latter regard, social capital issues are of paramount importance (Shucksmith, 2000; Shortall, 2008). Specifically, the EU stresses the strategic importance of networking to improve the cohesion of local societies and to pay special attention to both women and young people (Camarero and Sampedro, 2008; André, 2013; Chiritescu et al., 2015). Nevertheless, with some exceptions (Morris and Little, 2005; Pallarès-Blanch, 2015; Pérez Rubio et al., 2015), we lack empirical assessment of the impact of such policies at the local level, with special focus on both groups of people.

EU rural development programmes have contributed to reducing gender disparities (García Lastra, 2006 and 2008; Esparcia 2011a; Pallarès-Blanch 2015), for example, in levels of education (Esparcia, 2011b), and to improve

the visibility of women and their involvement in social life. These improvements have been less significant in relation to the economic activities (Sampedro, 1991; Vercher et al., 2015). This occurred despite the fact that most rural development strategies included positive discrimination for women-led economic initiatives (but certainly that positive discrimination has hardly been enough to overcome the set of barriers affecting rural women). Therefore, gender differences are still present and are sometimes highly significant. For example, “... men generally have higher levels of civic participation than women...” (Muñoz-Goy, 2013: 81) followed Sánchez-Oro “*This associationism is usually absent of those issues related to economic local development, remaining disconnected both from economic organizations ... and local action groups in which LEADER and PRODER programmes are supported*” (Sánchez-Oro et al., 2011: 1829).

Before 2006, the implementation of equity policies in the context of EU rural development has been rather limited, with just spontaneous participation of women in associations (Sabaté, 2007; MARM, 2011a). It was not until the LEADER Plus programme (2000–2006) when the EU was clearly concerned about equal opportunities for women in rural development. Moreover, in this period, some EU country members set quotas for the participation of women in the local action groups (LAGs), but it was not a mandatory measure for all countries and it lacked monitoring and evaluation by the EU (MARM, 2011a).

In Spain, there was a significant gender equality precedent (Law 3/2007). Partly from such a Law, in conjunction with EU regulations, the last programming period (2007–2013) has been an important step forward for transversal policies with a gender perspective (MARM, 2011a), being regional governments responsible for the promotion of positive discrimination for women’s participation in LAG management and decision-making bodies (for example, in Andalucía, 40 per cent of decision-making body members should be women, *Boletín Oficial de la Junta de Andalucía*, 243, 2008).

Therefore, there are three main elements in which this paper is based from a conceptual point of view. First, this paper is based on the processes of change that are occurring in disadvantaged rural areas in Europe and the ways that public institutions are addressing the related consequences. It should be emphasized that they are having different policies and initiatives inspired by the local approach to development. The LEADER programmes are probably the most faithful interventions to this approach, and it is in this context that we must understand much of development efforts being carried out in disadvantaged rural areas in the EU.

The second key element involves the management of social capital in these rural areas. Specifically, the European Commission refers to the need to promote local partnerships and governance, and thus networking both within and between different rural areas. In this sense, the most significant local actors in each rural area (the term “stakeholder” is used also to refer to the “actors”), those who form the core of the social network, are the base of both development strategies and cooperation mechanisms to put in place within the local society (Esparcia, 2000; European Commission, 2006; Kull, 2014). In essence, when the European Commission emphasises the need to develop networking among local actors, it is implicitly referring to the development strategies that should be supported by both the cohesion of local society (bonding social capital) as the relationships between different groups of actors within and outside the rural area (bridging and linking social capital) (Buciega and Esparcia, 2013; Esparcia and Escribano, 2014). More recently, explicitly, it has been already pointed out that local development processes necessarily involve actions especially aimed at strengthening bonding and bridging social capital by local communities (Esparcia, et al., 2016a). Only in this way, local development processes can be socially and economically sustainable.

The third key element is related to the gender perspective, which is of increasing importance in development issues (Kabeer, 2005). In the EU, women have been increasingly a target group in several policies, following objectives of reduction of gender disparities. Nevertheless, in the case of local development policies in rural areas, women are much more than a target group for rural development, but also a strategic protagonist group (LEADER Observatory 1996; Pastor and Esparcia, 1998; García Ramón and Baylina, 2000; European Commission 2000a; Council of Europe 2011; European Parliament, 2011). For the present programming period (2014–2020), multiple authorized voices in the EU have highlighted the need for further consideration of women as a strategic asset in programmes and local development strategies in rural areas (Advisory Group on Women in Rural Areas, 2014).

Finally, continuing from this introduction as a first section, the paper is structured in three more sections. In the second section, we pose three research questions, the methodology adopted and the site description. The third section is devoted to the presentation of the main results and the discussion of the research questions. Finally, the fourth section includes the conclusions and points out the need for further complementary research to complete the results.

Research questions, methods, and study area

Three key research questions

Given the above issues, this research aims to analyse, through a case study of a disadvantaged rural area in Spain (Rincón de Ademuz, in the region of Valencia, Spain), the role that women have as part of the stock of social capital of the study area. More specifically, there are three research questions to be addressed:

- First, considering that LAGs have emerged as the most outstanding instrument of local participation of public and private actors in disadvantaged rural areas (Esparcia et al., 2015), the research question is to what extent the involvement of women in local development processes and programmes has been reached, particularly in the LAGs with regard to the LEADER programme, as suggested by the European Commission (2000b).
- Second, if the LEADER programme and other local development policies have contributed to the strengthening of local society (as it is expected, which could partly be seen through its social network), the next research question is what is the role and position of women in such a social network, and if they have abandoned the marginal positions that traditionally have played in local societies.
- Finally, if we agree that intermediation is one of the key roles in the social networks (Täube, 2004; Burt, 2005), one relevant third research question is related to what is the role of women as intermediaries between actors or groups of actors in such a social network.

The answers to these research questions would allow us to assess more accurately to what extent the program meets the expectations and best practices posed both by experts and EU authorities.

Methods: socio-centric approach, node selection, longitudinal analysis, and measurement of intensity of relationships

Regarding methods, it is necessary to introduce and to clarify the four fundamental aspects in the title. The first aspect concerns why it is used as a socio-centric approach (Chung et al., 2005; Doreian et al., 2005). The fundamental reason resides in the fact that there is a specific social context in which local development policies give strategic importance to local stakeholders in the management of

development processes and programme implementation. Thus, the set of formal and informal representatives or highly protagonistic stakeholders constitute our socio-network of interest. Some similarities to this approach have been found in some previous studies (Marquardt et al., 2012). In addition, the second question refers to the selection of such nodes (stakeholders) conforming to the socio-network. Potential members are those who are coming from economic, social, managerial or institutional activities and those who are or have been (during at least one of the three six-year periods of implementation of LEADER programmes, or even before them) very involved and active in the development process (at the scale of the rural region), developing—at least informally—some type of leadership roles, introducing innovations in some way, participating in networking processes within and/or outside the region, and so on. They are considered as “significant stakeholders” in the social context of the rural region. Most of them have been within the LEADER LAG, but some are not. During the interview, in addition to the relational information, assessments on personal characteristics and capabilities of each of the known actors are collected. This information will be very useful to later contrast the obtained results from the social network analysis (SNA).

To detect and choose these potential nodes, two sources of information have been used: first, the manager of the LAG, who has a very deep knowledge of which actors have such a role in the region; and second, the interviews with the first group of significant stakeholders (they are asked about what stakeholders fill such role, and obviously the relationships between them), and in this way, the original socio-network could be enlarged. To compose the socio-network to be analysed, only relationships with other significant stakeholders were retained. Previous studies show that the proportion of initially undetected significant stakeholders does not reach 10 per cent as a maximum (Esparcia and Escribano, 2014). Therefore, after both complementary methods, almost 100 per cent of the significant stakeholders are detected and individually interviewed. For the interviews, an already tested questionnaire (with very few adaptations) was used, and applied with good results in previous research in different study areas (Esparcia and Escribano, 2014).

The third question here pertains to the intensity of relationships. At the time to analyse a relationship, interviewers have been asked not just about with what other stakeholders she/he has or have had relationships, but also what was its intensity (not the frequency). “High intensity” was defined in a wide sense as the presence of “strong personal links” (because any activities or reasons,

such as friendship, job, cooperation in some association as the LEADER LAG, NGO, and so on). Therefore, in the interviews, it has been differentiated as high, medium, and low intensity of relationships. Nevertheless, for most of the analysis, only “high” relationships have been retained, those which show strong links between actors.

The fourth and last question is related to the longitudinal analysis. It is highly important to carry out an approach to the changes in the social network, for two main reasons. The first is that local development policies, in particular the implementation and management of the LEADER programme, have undergone significant changes in the last period of the EU structural policies (2007-2013). Specifically, the regional government of Valencia has virtually removed all powers to LAGs, negatively affecting, as we shall see, the whole networking effort that had been made in the previous phases. The second reason is that in this context, we want to see the extent to which role of women in the social network has changed since the beginning of the local development policies derived from LEADER. Therefore, two main phases are analysed: from the beginning of LEADER in the region, in 1996, until 2006, as the first phase, and 2007-2013 as the second phase.

Thus, we have a group of selected stakeholders who have been significant in some period, most of whom were present during LEADER Plus, between 2000 and 2006. It is just that with this group of people, it is possible to draw the situation in past times. Accordingly, the only possible approach has been to ask interviewees for their social relationships in both phases before and after 2006. We are aware of the possible ‘forgetting effect’ about relationships 8, 10, or more years ago. However, as it would be seen in the results, this is hardly noticeable, as the main phenomena clearly drawn. Contributing to this is the fact that the study area is a small region (less than 2,500 inhabitants) with a reduced social network of significant stakeholders (just 30 actors) and that there is a high degree of knowledge among the population.

Methods: the analysis of women positions and mediation capacity in the social network

Social Network Analysis has been carried out according to the classic indicators of cohesion and centrality (Wasserman and Faust, 1994; Borgatti et al., 2002; Hanneman and Riddle, 2005), with a special focus on the women’s positions. However, the analysis of women’s mediation capacity deserves some previous methodological considerations. Certainly, one of the main keys in the social networks are relationships. When these are either not present or weak, the social network tends to

be less cohesive and less effective from the point of view of the development processes that require cooperation between stakeholders. Thus, the absolutely fundamental role of intermediaries, namely those stakeholders who are able to mediate, arises.

The brokerage concept has been defined as a process “by which intermediary actors facilitate transactions between other actors lacking access to or trust in one another” (Marsden, 1982: 202, in Gould and Fernandez 1989: 91). According to Marsden, because of the control of information, flows and exchanges between actors by brokers would allow them to gain power, which would be reinforced whenever a new exchange is facilitated. Nevertheless, moving away from the concept of power, Gould and Fernandez stated “we refer to an actor who facilitates transactions or resource flows as a broker whether or not the actor attempts to extract a direct reward” (1989: 91). In the same way, mediation positions should not be identified with centrality for them but as an element of influence: “clearly, brokerage is not synonymous with centrality ... Brokerage potential is actually a better predictor of influence than standard measures of centrality” (Gould and Fernandez, 1989: 120).

Additionally, the crucial role of brokerage in social capital has been pointed out by Burt (2005):

“Broker do better. Informal relations form a small world of dense clusters separated by structural holes and the people whose networks bridge the holes are brokers rewarded for their integrative work ... A vision advantage is responsible for the brokerage advantage. Information is more homogeneous within groups such that people who bridge the holes between groups are more creative and more likely to see a way to implement their ideas ... At the same time, network closure around the bridges creates reputation pressures that encourage the trust and collaboration needed to deliver the value of brokerage ...” (pp. 12-13).

Bearing these concepts in mind, we will analyse the more or less strategic role that women have in the social network as intermediaries and therefore in shaping the social network and determining its efficiency. Relationships will be analysed according to two main subdivisions of the social network, gender and professional dominant profile (with three main groups [economic, institutional and managerial actors], because none of them has been identified as a social actor as a main activity).

Brokerage or mediation (we use both terms indistinctly) can take different forms. It may occur between actors belonging to the same group or between those belonging to different groups (with the last situation being more useful to the effectiveness of the social network). Assuming directed networks, Gould and Fernandez

identified five types of brokerage roles or relationships (Figure 1). We will develop this sort of brokerage analysis to know what is the more significant role developed by women in the social network.

The study area

The study area is the rural region of Rincón de Ademuz, located in the rural inland of the province of Valencia (Spain) (Figure 2). There are several reasons explaining its selection. First, even though there is not an official administrative region (only municipalities, provinces, and region are official), this group of municipalities constitutes a clearly distinct geographical unit, because it

is an exclave between two autonomous regions (Aragón and Castilla-La Mancha). Second, there are historical and cultural specificities that differentiate it from other rural areas; therefore, local society members have historically had a specific and strong sense of belonging as well as a community feeling. Third, as a consequence, the social network in Rincón de Ademuz tends to be more stable and cohesive in relation to other rural areas, which is an important element at the time to conduct a SNA. Fourth, despite these particular characteristics, the selected area participates and is very well represented in the economic, demographic, and social decline processes in which have been involved most of the disadvantaged rural areas in the country since the 1960s.

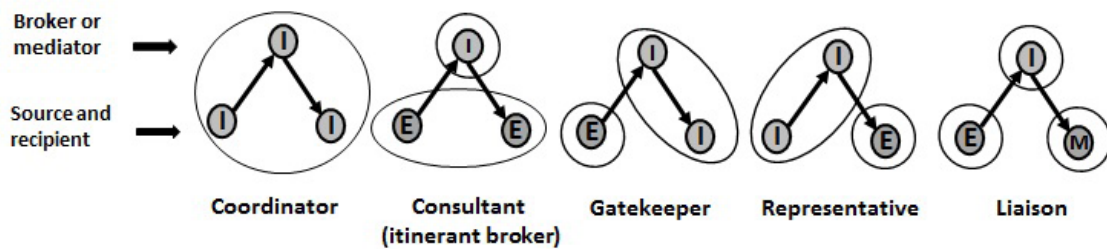


Figure 1: Graphic representation of the five types of brokerage relationships (1) (1): Being “I,” “E,” and “M” actors with Institutional, Economic, and Managerial professional profile, respectively: Coordinator (all actors belong to the same group), Gatekeeper (source actor belongs to a different group), Representative (recipient actor belongs to a different group), Consultant (broker belongs to a different group), and Liaison (all actors belong to a different group). Source: adapted from Gould and Fernandez (1989) and Borgatti, S., Everett, M. and Freeman, L. (2002).



Figure 2: Map location of Rincón de Ademuz (Valencia, Spain). Source: Authors' own elaboration (using ArcGIS v 10.1)

Rincón de Ademuz has an area of only 370.47 km². It has two characteristics: its historical depopulation process (its actual 2,414 inhabitants are only 33 per cent of the number of inhabitants it had in 1960; that is, in 55 years, the region has lost two-thirds of its inhabitants), with an actual density of 6.5 inhabitants per km² (lower than that of Finish Laponia); and its remoteness from the populated and developed areas of the region of Valencia, located in the coast (2.5 hours and 130 km away during the last decades, although recently reduced to 2 hours and 160 km).

Thus, because of the long and serious demographic and economic crisis (marginal and low productive agriculture), the implementation of local EU development programmes was fully justified. LEADER has a twofold objective: the promotion of economic activities others than traditional agriculture, and the launching and implementation of processes of participation of local population through their representatives and main stakeholders in the board of the LAG (focusing on effective networking). Therefore, with this bottom-up approach, LAG was in charge of the design, implementation and management of local development strategies (Esparcia et al., 2015, 2016a), having benefited from the EU LEADER programme from 1996 to the present, i.e., LEADER II (1996-1999), LEADER Plus (2000-2006), and RURALTER-LEADER (2007-2014).

Results: Increasing relevance of women in the social network. Involvement, networking processes and mediation capacity

Increasing women involvement in local development processes

The first research question was to what extent the involvement of women in local development processes and programmes has been reached, in particular with regard to LEADER programmes. It should be noted that EU LEADER programmes do not have compulsory indications on a gender component; nevertheless, it emphasized that LAGs should stimulate the participation of women, also as boards members. Some studies show that participation of women in LEADER boards has not been significant, increasing very slowly since the 1990s (Esparcia, 2011a), being approximately 25 per cent during the period 2007-2013 (MARM, 2011b), and arriving at 30 per cent in many

LAGs (REDR, 2016). Our study area was in line with these figures until 2006, although during the period 2007-2013, with data related to the whole LEADER region (much bigger than Rincón de Ademuz), it has been officially just 9 per cent.

In this research, we have not worked with the formal LAG members but with the significant stakeholders, as members of the social network (with 27 per cent being women; that is, a relevant number of women are considered as significant stakeholders despite the fact that they are not within the LEADER board). In this context, and asking about all types of involvement in local development policies (for example, additionally, being members of working groups, members of the LAG assembly, etc.), the results show a very positive trend in the participation of women from the beginning of these programmes until 2006 (Figure 3).

The context in which this happened was determined by the creation and launching by the local actors of the Association for Integrated Development of Rincón de Ademuz – ADIRA (1994), which was devoted to the promotion of rural development processes. It was a precursor and main promoter of rural development programmes between 1966 and 2006. Very few women were present in the board of this association before 1996. The adoption of LEADER II meant that when the LAG and its board were created, most of whose members came from ADIRA. As a consequence, the number of women in this board increased significantly. Thus, although LEADER EU Programmes (from 1996 until 2006) have channelled stakeholders' involvement, global figures for either those women or men who are highly involved are positive (although not exceptionally significant). During the last period (2007-2013), no women or men have had high involvement because of a critical and negative change in the way the programme was managed from the regional government. LAG virtually disappeared, the board lost most of its functions, management tasks were undertaken by the regional government, and as a consequence, those local stakeholders with previous high involvement changed to having medium, low, or no involvement.

Women in the social network: Rise and fall of networking processes

The second research question was related to what the position of women was in the social network. There is no single answer, because social network results are comparatively very different from both phases. The first one (1996–2006) was characterised by growth, consolidation and increasing cohesion, with the rise of

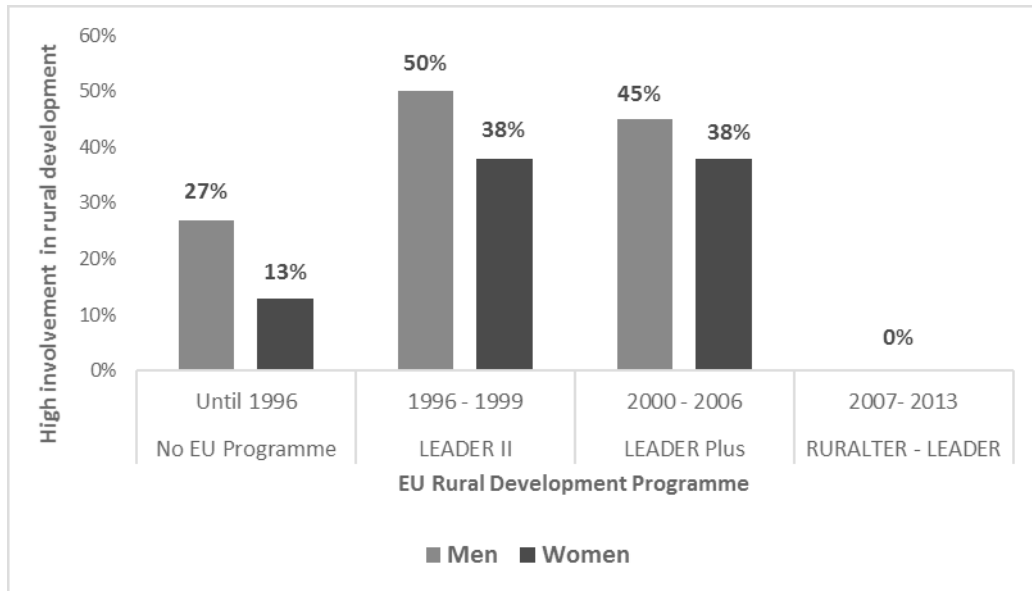


Figure 3: Stakeholders with high involvement in rural development (in % of each gender group). Source: Authors' own elaboration from personal interviews, *Rincón Ademuz Social Capital Research*, 2014

networking processes involving women (Figure 4a). The second one (2007–2013) was characterised by a global decline of cohesion and centralization, being women's positions and relationships very negatively affected, because of changes in the management by the regional government (Figure 4b).

In relation to the first stage, network density was not very high in terms of social networks (34 per cent), but nevertheless, this result is very significant when considering the fact that in remote rural areas, it is very common to find even very low population densities (Esparcia and Escribano, 2014). Comparing results by gender, clear differences emerge in some of the indicators, that is, network density shows a better cohesive network for men (37 per cent) than women (25 per cent). From centrality indicators, it also emerges that women are positioned worse than men, regarding both their average degree and betweenness. Women are a bit less prestigious than men (26 and 39 per cent as an in-degree); they are a bit less active in the social networks (28 and 38 per cent as an out-degree); and they have significantly lower overall betweenness capabilities than men (0.8 and 2.7). Nevertheless, the positive aspect is that closeness centrality is almost the same, which means that despite pitfalls, women seem to be able to play a significant role in the social network.

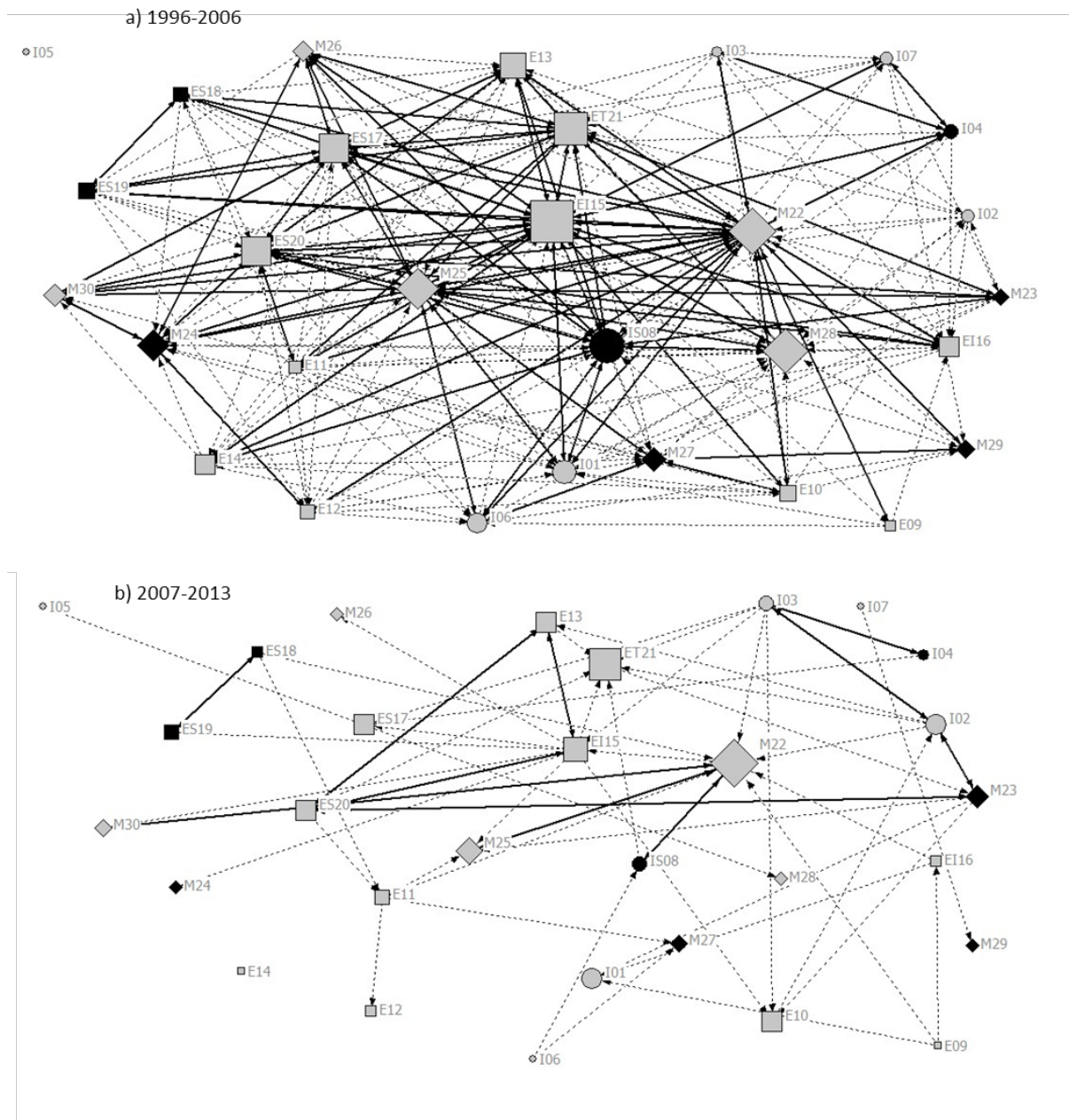
Nevertheless, despite this apparently negative global context for women, from Figure 4a, it seems clear that at least some women are very well positioned, with significant

in-degree (for example IS08, M24, and M27)¹. They are well recognised and reputed stakeholders, having a leadership role in both institutional and managerial fields (also confirmed by qualitative interviews). Other women have lower in-degree, but still significant mutual relationships that show that at least they have some important role for small sub-groups of actors. Here we find women from all three profiles: managerial, economic and institutional (M29, M23, I04, ES18 and ES19).

Thus, globally women were a group of actors who was certainly in a worse situation than men, but both of them were involved in social participation and local development processes that were especially beneficial for women, improving their presence and position in terms of social capital. The perception that most of the local actors had was that the distance of women in respect to men was clearly decreasing during that period. Unfortunately, these improvements in the social network and the participation of women in it were nearly paralyzed after 2006.

The second phase coincides with the last EU rural development programme, in which, as previously noted, the regional government virtually left the LAG and its board without real and practical content. The first

¹ Stakeholders will be identified by the predominance of any of these activities, economic (E), Institutional (I), managerial (M) or social (S). When an actor plays a double role, activities are ranked according to importance (i.e. "IS" mean an actor whose main activity is institutional, but who is also involved in social outstanding activities).



Period	Density			In-degree	Out-degree	In-closeness	Out-closeness	Between-ness	Reciprocity (dyads)
	Women	Men	Global						
a) 1996-2006	25,0%	37,4%	34,8%	52,7%	56,2%	37,3	37,1	18,8%	45%
b) 2007-2013	3,6%	8,7%	7,4%	24,5%	28,1%	6,6	7,5	20,1%	21%

Figure 4: Stakeholders’ social network. Rincón de Ademuz (Valencia, Spain). 1996-2006 and 2007-2013 (1)

Legend: Black: women; Grey: men. Circle: Institutional actors’ predominant profile; Square: Economic actors’ predominant profile; Rhombus: Managerial actors’ predominant profile; Continuous black line: mutual relationships; dashed line: non-mutual relationships.

(1): The networks have been built only from high-intensity relationships between actors (see methods section for more detail).

Different measures of density were calculated using the whole social network (global), the social network composed only of men (deleting nodes representing women), and the social network composed only of women (deleting nodes representing men).

Source: Own elaboration from Personal Interviews -Rincón Ademuz Social Capital Research, 2014 (Calculations and drawings have been made using Ucinet 6).

important and fundamental conclusion is a dramatic decline of cohesion and centralization in the whole social network, with this trend being very well reflected in the different indicators (Figure 4b). This change affected both women and men, with almost no difference, or a very slight difference, in the average values of most of the indicators, as in-degree (5.6 per cent for women and 7.2 per cent for men), out-degree (5 per cent for women and 8 per cent for men) in-closeness (7.1 and 6.4), out-closeness (7.2 and 7.6), and betweenness (1.5 and 3.7 per cent). In such contexts, all local stakeholders have certainly very limited possibilities to contribute positively to the building of local social capital.

However, although the global trends continue in the distribution of the different positions of centrality, the network dismantling has not affected all stakeholders equally (as confirmed, for example, by the correlation for in-degree in both phases being $r = 0.6$, and $p < .05$). In this regard, it is noteworthy that some women still occupy certain important positions, but always bear in mind that these positions involve much less prestige, power, activity or ability to mediate among other actors in the social network. Most of these still central positions (in the context of this particular weak social network) are related to stakeholders of managerial profile (M23, M30 and M27, as local development agents). Meanwhile those with an institutional profile (IS08) lost a large amount of centrality, and even those of economic profile in certainly marginal positions (ES18 and ES19).

Thus, coming back to the **research question**, from the changes in the socio-networks across the two periods, we may conclude, first, that women certainly were in a process characterised by an increase of involvement and participation in the social life of local communities and development processes, therefore gaining centrality in the social network of the rural region. The changes introduced by the regional government in the implementation of the last rural development programme (2007–2013) negatively affected the social network in general and the position and roles of women in particular. Nevertheless, the relevant presence of women employed by the municipalities as local development agents has contributed to keeping some of them in relevant positions in the social network of the rural region (bearing in mind that the new social network is less cohesive and that all stakeholders lost a large amount of centrality).

Mediation by women: high significant and diverse roles in the social network (1996–2006)

One of the most useful indicators of the actual integration of women in the social network is based on the ability to mediate between actors. Considering the developments that have occurred between the two periods and the disruption that has been produced in the social network, brokering (or mediation, following Gould and Fernandez 1989) has clear strategic importance. Nevertheless, the brokerage analysis for the second period (2007–2013) has been discarded, because the results are almost not significant (because, for example, the number of times that the whole stakeholders may mediate, acting as brokers, is only 7.6 per cent of that in the first period, despite the fact that women have a similar weight, with 17 and 15 per cent of potential mediations in the first and second periods respectively). Therefore, the following brokerage analysis focuses just on the first period (1996–2006), one that yields significant results.

The overall brokerage capacity is independent of the groupings and applied perspective, either based on gender or professional profiles. Thus, the first significant result is related to the weight or overall mediation capacity by the actors in the socio-network (Figure 5). The profile is clearly away from one with a normal distribution, being characterized by a strong positive skewness, with two very differentiated groups of actors: a large number of them have low or very low brokerage capacity (left side), and a small number of them have significantly higher values (right side), mostly concentrating on the brokerage capacity (only four actors, 13 per cent of the sample, gather 60 per cent of the overall mediation capacity) (Figure 6). Among these actors, there is just one woman.

Beyond the overall brokerage capacity, the role that different actors have or may have is of special interest in respect to each of the five types of intermediation, as was highlighted by Gould and Fernandez (1989) and Burt (2005).

By dividing the network between women and men, brokerage analysis just allows us to have a first approach (Table 1, a). Therefore, it is useful to apply a complementary perspective, focused on the main type of **professional activity**. Three groups are considered: those dealing mainly with public-institutional affairs (I); those dealing mainly with economic affairs (E); and those in a managerial role (M), especially local development agents. Considering their activities, no actor has the dedication to social issues as her main activity. After data normalization, the resulting distribution of the

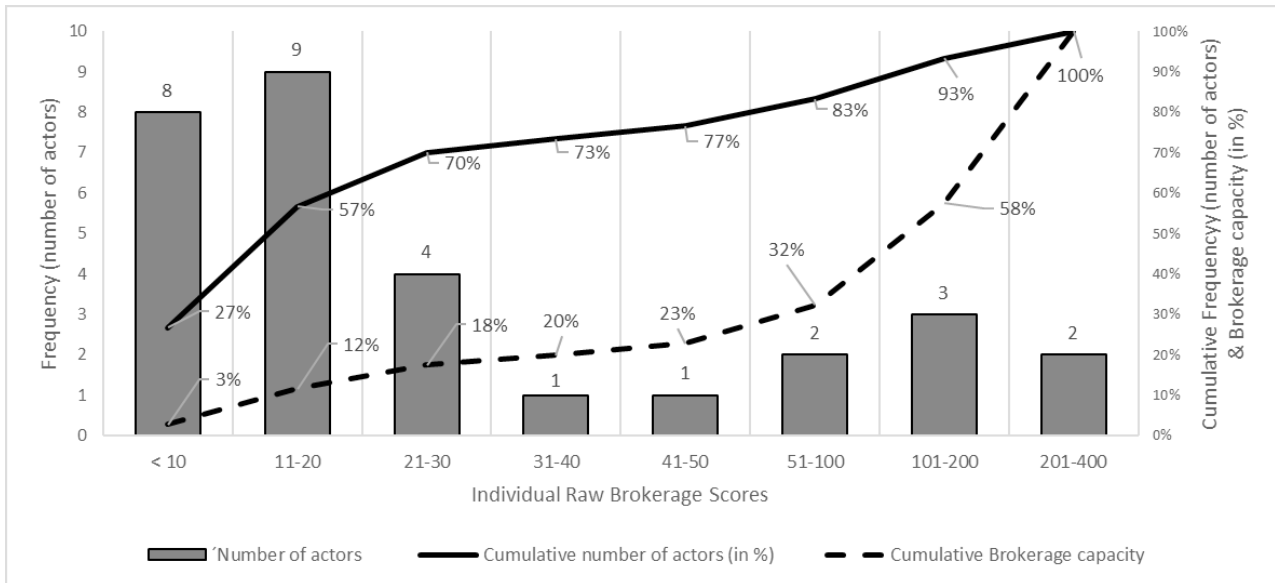


Figure 5: Distribution of actors and brokerage capacity Source: Authors' own elaboration from personal interviews, Rincón Ademuz Social Capital Research, 2014

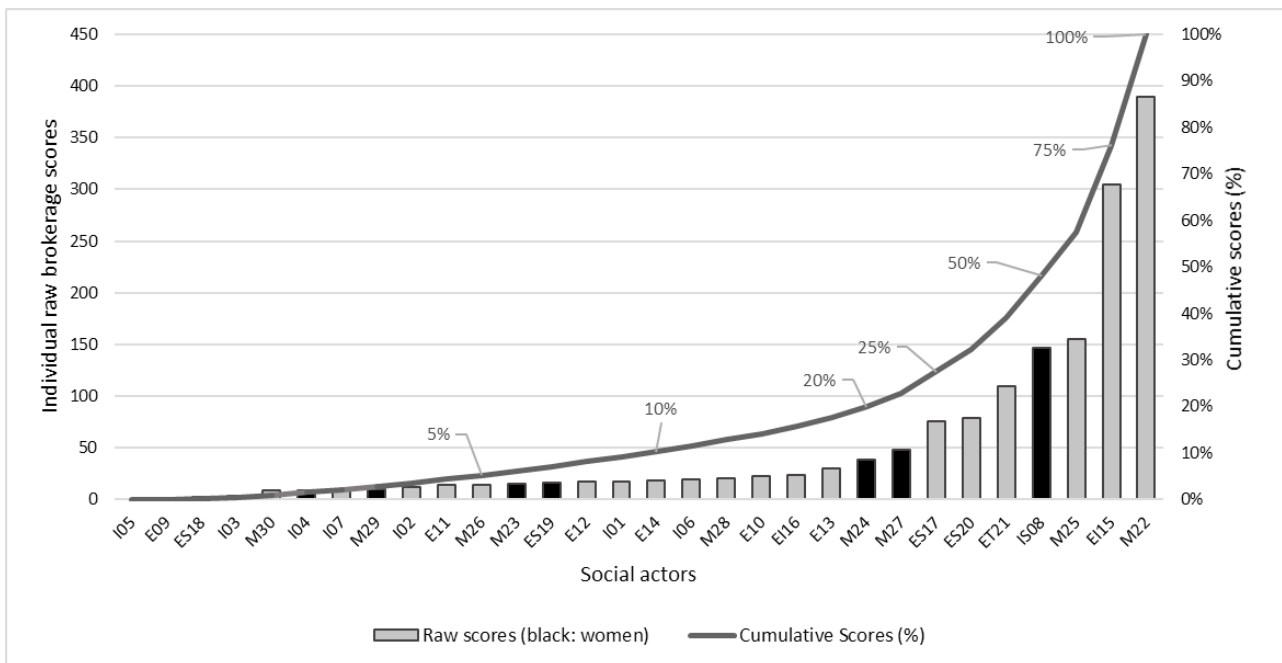


Figure 6: Individual and cumulative brokerage capacity of actors in the socio-network. Source: Authors' own elaboration from personal interviews, Rincón Ademuz Social Capital Research, 2014

total brokerage capacity for each of the three groups (not differentiating women and men) is quite close to the real presence of each of them in the stakeholders' sample (Table 1, b). Economic actors concentrated almost half of their effort on brokerage capacity, while managerial actors maintained a significant role, with institutional actors

having more modest positions. This is a highly consistent and significant result in relation to the social and economic changes of recent decades in the study area, characterized by an important leading role of civil society during the 1990s and 2000s, also with the significant contribution of some institutional stakeholders.

Table 1: Gender brokerage capacity (from normalized scores). Distribution of brokerage capacity by women and men (a), whole actors by professional profile (b), and women by professional profile (c).

		Coordinator	Gatekeeper	Representative	Consultant	Liason	Total
a) Gender approach	Men (73 %) (1)	96%	76%	75%	32%	--	68%
	Women (27 %) (1)	4%	24%	25%	68%	--	32%
b) Professional approach. Whole actors	Institutional (27 %) (1)	18%	14%	20%	30%	43%	23%
	Economic (43 %) (1)	58%	46%	53%	31%	28%	47%
	Managerial (30 %) (1)	24%	40%	27%	38%	30%	30%
c) Professional approach. Women	Institutional (25 %) (2)	45%	41%	37%	19%	16%	31%
	Economic (15 %) (2)	25%	7%	19%	10%	4%	17%
	Managerial (44 %) (2)	45%	70%	20%	43%	49%	44%
	Women / Total	34%	37%	23%	25%	23%	28%

(1): Percentage of each group of actors in the whole social network. In a) and b) each type of brokerage sums to 100%.

(2): Percentage of women within each professional group. Results represent brokerage capacity of women within each professional group (thus, the remaining percentage up to 100% corresponds to men).

Source: Own elaboration from Personal Interviews, *Rincón Ademuz Social Capital Research*, 2014.

In this context, we are interested in the presence and role of women in each of the three groups to which they belong (Table 1, c), which was the **third research question**. In relation to the institutional profile, women developed mainly three types of brokerage: coordination (because elected members of local councils are often a very cohesive and interrelated group), having an outstanding leadership within and outside the group (as has been recognised by other stakeholders during interviews); and gatekeeper and representative, i.e., brokerage from and toward the other two groups of actors, economic and managerial. These brokerage roles for women with an institutional profile highlight and confirm their strategic role in the social network.

In terms of mediation capacity, the women carrying out managerial activities (mainly related to local development) have even higher relevant roles in the socio-network than those with an institutional profile. Their presence is important in virtually all types of brokerage, with the exception of the representative role (which is understandable, because managerial actors may have easy access to economic and institutional actors). However, it is noteworthy that women do have great potential as gatekeepers, which is the most important of the five types of brokerage, providing contacts and information from the institutional actors (their bosses) and economic actors to their colleagues in management activities. That is, women managers not only provide information from other groups, but also share it within their own group.

From the point of view of development strategies, the liaison role certainly also has a strategic importance. In this case, some of the women managers are connecting

economic and institutional actors (those with more effective and higher recognition and trust), which is a key function for local development. The consultant role is also significant, because networking among economic actors is one of the strategic objectives in the processes of local development (especially those promoted by LEADER). Women acting as local development agents have certainly contributed to such networking.

Therefore, to promote networking among entrepreneurs, networking among managers and development agents themselves should be previous or at least parallel. Thus, some women have developed a strategic role of coordination within the group, with special importance being given to the bridges they established between local development agencies and the managerial team of LEADER (obviously just until 2007). This significant brokerage role is certainly associated with the improvement of their relevance and general leadership.

Finally, women having a predominant profile as economic actors have a limited presence in the social network as well as reduced weight as brokers. The only two functions that some of them highlight are the representative (mainly in respect to institutional actors), and especially the brokerage between other entrepreneurs. In this sense, this capacity for women to coordinate actors of the same group is comparatively higher than that of male economic actors.

Because the group of women in this socio-network is reduced, it is useful to point out some results from an individual analysis. Several trends or profiles emerge (Figure 7). For example, actor IS08, with a main institutional

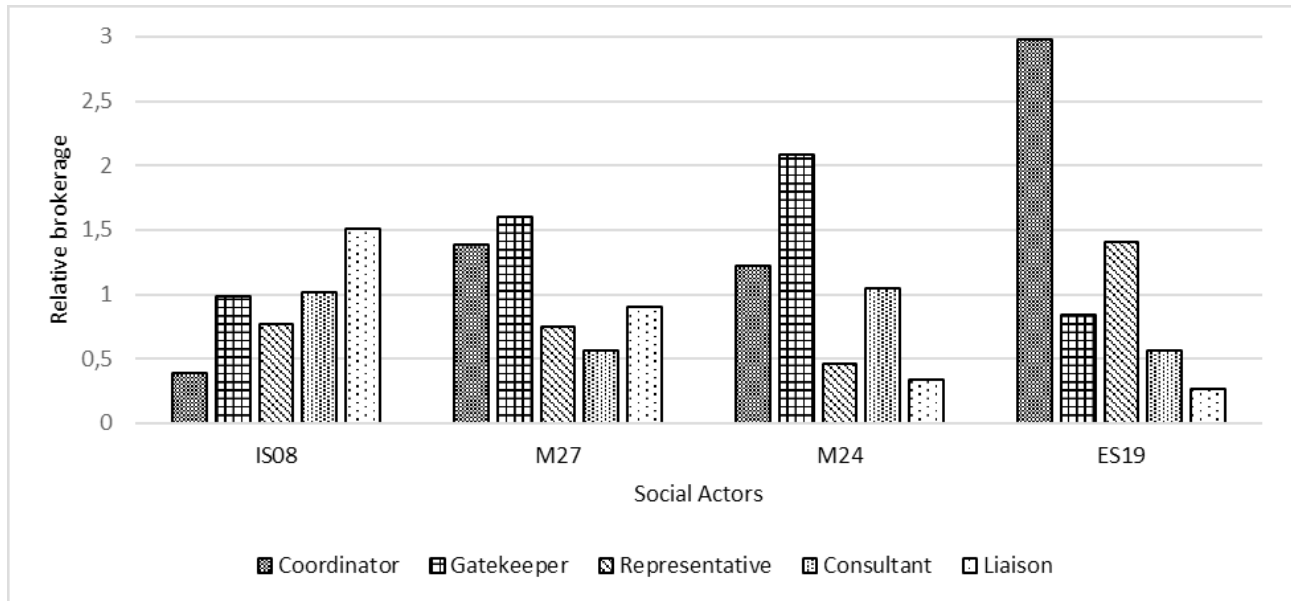


Figure 7: Brokerage roles of some female social actors (relative scores) (1).

(1): Relative brokerage is raw scores divided by randomization expected values given group sizes (Borgatti et al., 2002). Source: Authors' own elaboration from personal interviews, Rincón Ademuz Social Capital Research, 2014

profile (as a mayor) develops the five types of brokerage, but especially the liaison, which implies a necessarily high level of trust and acceptance in other groups, higher than that with respect to any another female (and hence she also has a significant role as a gatekeeper, representative, and consultant). These mediation functions are possible because of the relatively high prestige and leadership of this actor in local society, having a clear social function, which undoubtedly contributes to strengthen her capacity to mediate between different actors.

Both managerial actors (M27 and M24) have similarities in their profile, with important functions of coordination within the group of local development actors, and especially with gatekeeper functions, that is, well connected with other non-managerial actors (institutional and economic), providing information and contacts to their colleagues, other local development agents. One of them (M27) also develops an important role as a liaison between entrepreneurs and institutional actors (a role that is unusual among managerial actors).

Finally, the economic and social actor (ES19) basically has a coordinating role among other economic actors. This ability to mediate between economic actors is also supported by her outstanding leadership and comparatively high level of prestige in the socio-network.

Concluding remarks and next steps

The obtained results in this research are relevant in a few ways. First, there is a close connection between the implementation of EU rural development programmes (adequately developing local governance instruments such as LAGs) and the processes of generation and accumulation of relational capital, as shown by the SNA conducted in the study area. These processes were present during the period 1996–2006, coinciding with the implementation of the LEADER II and LEADER Plus EU programmes. Not coincidentally, when those programmes do not provide the adequate cooperation, networking, and governance environment (such as the last LEADER period in the region of Valencia, during the period 2007–2013), all achievements in terms of cohesion and centrality in the social network may dramatically fall, as that which happened in the study area (some undergoing research preliminarily confirms this same results in the remainder LEADER areas of the region, unlike the regions in which LEADER has been properly implemented).

Second, the results show that far from the topic of the alienation of women in public and social life, the development programmes have contributed to a greater presence and participation in development processes. This participation has occurred not only through formal participatory instruments (such as LAG and its board) but also in public life through their presence in the informal networks of significant social actors. Women have reached

very prominent roles in the resulting social networks, as has been seen through indicators of centrality, cohesion, and brokerage analysis during the period 1996-2006 (when rural development programmes have been implemented following EU orientations and the endogenous approach to local rural development).

Third, the results from the SNA clearly show such a loss of relational capital, particularly of cohesion and centrality by most stakeholders during the second period. This is especially evident and serious in the case of women, whose previous social relevance has virtually disappeared. In the same way, the interesting roles of intermediation that some women have started to develop in the previous phase, from 2007, are no longer present, and only some women working as local development agents retain certain levels of prestige, although at a very local level and with virtually marginal positions in the social network. The SNA approach has been particularly useful in demonstrating these trends.

Fourth, brokerage analysis (applied to only one significant socio-network, 1996–2006) has proven to be particularly useful in analysing the important and varied functions of mediation of different social actors, and particularly the important role of women. This analysis shows that just over one-third of women have had a significant mediating role in social relations. In addition, brokerage analysis allowed us to assess the importance of each type of mediation, which is relevant from a gender perspective but especially from the professional profiles. Certainly there are very few women who have a significant role in the socio-network. Nevertheless, they are highly relevant, doing almost all types of mediation in the analysed period (with the exception of coordination, keeping away of potential homophilic trends, and being a gatekeeper and liaison the most significant). Therefore, from a brokerage analysis perspective, it has been shown that women played a very strategic significant role in the social network and in the development process. Leadership by women (institutional and managerial) has been present and fundamental in conducting rural development processes in the area. Even despite the changes in the second period, these functions remained comparatively significant in relation to men (although certainly at a much less relevant scale).

Fifth, from the methodological point of view, the sociocentric approach has certainly demonstrated to be useful when social network is composed of a set of significant and specific social actors. Nevertheless, further studies should be conducted exploring both complementary analysis from a sociocentric approach and ego-network approach (Marquardt et al., 2012). In

this study, information beyond the socio-network is already available, and the analysis of personal networks of these significant stakeholders would probably reveal interesting and fruitful results. Another methodological aspect to take into account is related to brokerage analysis (although restricted to personal networks in the socio-network). Different analysis resulted in considering just those results on the socio-network with certain “vitality.” In this case, the definition of mediation roles allows us to complement the most classic measures of cohesion and centrality. The results show that several women, despite not having very prominent positions and very high levels of prestige in the socio-networks, have very crucial and strategic roles mediating different socio-professional and economic groups, and thus contributing to a more efficient networking.

Sixth, the results are also useful at a decision-making level. From the study, it is clearly derived that a better contribution to development processes could be achieved when two conditions are combined: the promotion of adequate instruments for local cooperation, networking, and governance, as LAGs (as conceived by the EU) or an equivalent instrument; and women involvement, since they have demonstrated to be a highly valued social capital, playing a strategic role in local development process. Thus, both decision-makers at regional governments and local stakeholders should consider involving women actively in social networks in general, and decision-making bodies in particular, because they have contributed to an effective networking.

We have to take into account a final consideration. No comparable published research is available that applies this methodology to women’s positions and roles related to socio-networks in disadvantaged rural areas. Nevertheless, detailed and comparable research has been recently conducted, although not yet published (Esparcia et al., 2016b). This allows us to confirm many similarities with detected trends in this study area. Therefore, in the future, on the one hand, comparison of the four available study cases should be conducted; on the other hand, other extensive and deep research should be conducted in analysing both the role and position of women in the social networks and their mediation capacity.

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