

## **Organic farming policy networks in Europe: context, actors and variation**

Heidrun Moschitz, Matthias Stolze, Research Institute of Organic Agriculture,  
Ackerstrasse, 5070 Frick, Switzerland

Preprint Version of the article published in Food Policy Vol. 34 No. 3 June 2009.

doi: 10.1016/j.foodpol.2009.03.007

### **Abstract**

Despite most having developed under the umbrella of the Common Agricultural Policy (CAP), national-level organic farming policy networks in Europe vary. The aim of this paper is to explore the reasons for this variation. Quantitative network analyses were carried out in five 'old' and five 'new' EU member states and in Switzerland. To examine the patterns of influence on these eleven policy networks, the cases are compared in two stages. First, we examine the factors co-varying with the size and density of the networks and then we apply a most similar system - most different outcome research design. We identify the political environment as the main factor affecting size and density of organic farming policy networks in Europe. The distribution of power between organic farming organizations and agricultural ministries is influenced by state involvement and by the resources available to organic farming policy actors.

### **Introduction**

In comparison with the general Common Agricultural Policy (CAP), which was established in Europe at the end of World War II, organic farming is a relatively new policy field in the European Union (EU). Particular to this policy field is the fact that organic farming emerged as a social movement in opposition to mainstream farming including not only the producers of organic food but also consumers and environmentalists (Tovey, 1997). This resulted in policy networks that looked quite different from those found in general agricultural policy, where fairly closed systems of policy making had developed, based around general farming organizations and agricultural ministries (Greer, 2002). However, organic farming policy networks are far from similar across Europe. The number of actors engaged in these networks varies between 13 (Czech Republic) and 26 (Austria), and the density of the networks ranges from 7.9% in Estonia to 45.6% in Denmark. Besides, in a few countries organic farming organizations dominate the networks, whereas in others this role is played by the agricultural

ministry (Moschitz and Stolze, 2007).

Networks in agricultural policy have been analysed in a number of ways (Thatcher, 1998). Henning, Pappi and Wald used network analysis as a heuristic tool to develop a typology of interest intermediation systems, using the example of the CAP (Pappi and Henning, 1999; Henning and Wald, 2000). Sciarini (1996) examined how the Swiss agricultural network reacted to pressure exerted by the Uruguay round of negotiations over the General Agreement on Tariffs and Trade (GATT). In a comparative analysis of the implementation of nitrate policy in Denmark and Sweden, Daugbjerg (1998) used network structures to explain the differences in policy outcome. However, while agricultural policy has been the focus of a number of network analyses (see e.g. Smith, 1992; Jordan et al., 1994; Adshead, 1996), this analytical tool has rarely been used in organic farming policy analysis. For example, Greer (2002) examines policy change in the Irish and the British organic sector through a network analytical perspective.

The aim of this paper is to explore why organic farming policy networks have developed differently across Europe, despite the fact that organic farming in all countries is affected directly or indirectly by the CAP. The EU states covered are Austria, Denmark, England (while acknowledging different network structures in the United Kingdom as a whole), Germany, Italy, the Czech Republic, Estonia, Hungary, Poland and Slovenia; Switzerland provides a non-EU perspective. We are looking for factors that influence the structure of organic policy networks. In doing so, we apply the concept of *network* in two ways: first, as a heuristic device to describe linkages and interactions among the actors involved in policy making; and, second, as a variable that depends on different factors, such as the institutional environment and the ideas and strategies of the actors involved. Actors in this paper are conceived not as individuals but as collective entities, i.e. private or public organizations.

In the following, we present the theoretical background of network analysis as well as the concepts used to describe influencing factors. We then outline our comparative research design, before presenting and discussing the results. Finally, we critically review the utility of the chosen approach and outline some conclusions about variations in organic farming policy networks across Europe.

### **Theoretical background of network analysis and factors influencing network characteristics**

In this section we provide a brief overview of the concept of policy networks and network

analysis, present the quantitative network measures used in our analysis, and outline the factors which potentially impact on such networks.

### **Networks and network analysis**

The concept of *policy networks* took off in the social sciences in the 1970s and 1980s as a response to contemporary developments in the public policy-making process, which was being influenced by a growing number of actors (Kenis and Schneider, 1991). Since it would exceed the scope of this paper to present the lively debate that evolved around this concept (see Dowding, 1994; Marsh and Smith, 2000; Dowding, 2001; Marsh and Smith, 2001), we restrict ourselves to summarizing two main meanings of policy networks (Schneider, 1992). First, the term is used as a metaphor to characterize an action system lacking a clear hierarchy of decision making. Second, a policy network formally describes any pattern of interrelationship among actors. In our study we employ the latter, more neutral, application and use Van Waarden's notion of policy networks as a generic term to characterize public-private relations (Van Waarden, 1992).

*Network analysis* lays the foundation for a structural analysis of public and private actor configurations (Schneider, 1992) and provides a powerful means of answering standard social science questions. Wasserman and Faust (1999) stress that the policy network perspective developed as an integral part of advances in social theory, empirical research and formal mathematics and statistics, so that the method is well grounded in both theory and application. It goes beyond formal institutional decision making by combining different explanatory approaches from the different theoretical backgrounds of rational choice theory, new political institutionalism, symbolic interaction theory and public policy analysis (Windhoff-Héritier, 1993).

The unit of analysis is not the individual (or individual organization) but an entity consisting of a set of actors and the set of links established between them. The underlying principles of the network approach are as follows (Wassermann and Faust, 1999):

- i) actors and actions in a network are interdependent rather than independent of each other,
- ii) linkages between actors are channels for the transfer of material or immaterial resources (e.g. money, personnel, information, political support),
- iii) network structures may either enable or constrain the actors involved, and
- iv) structure (social, economic or political) is a lasting pattern of relations among actors

### **An overview of quantitative network analysis measures**

Quantitative network analysis provides the researcher with measures for describing networks as a basis for further investigation into patterns of relationship (Windhoff-Héritier, 1993). First, *network size and participants* are useful for a descriptive overview of a network, even if they do not involve a relational perspective. In small networks, it is more likely that two actors will know each other and establish a relationship. Furthermore, actors have different priorities and interests which influence their network activity.

The *density* of a network is defined as the proportion of actually established links (Kephart, 1950). The network density varies between zero and one, usually presented as a percentage value; a density value of 0% indicates no links between the actors and a value of 100% the maximum possible links between the actors. The density of a network illustrates the level of interaction between actors and thus indicates the importance of a policy. If a policy is of little interest there will not be much activity in the network, because all the actors will be focusing more on other policy issues than on that particular one.

Finding the actors that are most powerful in a network is one of the primary objectives of network analysis. We concentrate on two concepts of power based on positively related networks of influence (Jansen, 2003): *reputation* and *prominence*. *Reputation* is defined as the expression of the power of an actor, i.e. the perceived power of an actor to have influence in the network. We define it as the proportion of interviewees who named an actor as influential in relation to a particular policy (Kriesi, 1980; Sciarini, 1996). The *prominence* concept considers as powerful those actors who exert an influence on many others. There are two types of prominence: prestige and centrality (Knoke and Burt, 1983). An actor is prestigious when it receives a large number of links from other actors in the network. An actor is central when involved (directly or indirectly) in many relations. In our analysis we limit 'prominence' to applying the *betweenness centrality* measure. An actor is central if it lies on the shortest link between other actors (the so-called geodesic), i.e. they have to pass via this actor if they want to interact with each other. A large betweenness centrality signifies that this actor is located between many pairs of actors on their geodesics (Wassermann and Faust, 1999). For purposes of comparison between networks of different sizes, this measure is standardized by dividing the value reached by the maximum possible value of betweenness centrality. Actors with a high betweenness centrality have the potential to control communication within a network and coordinate group processes (Freeman, 1978/79). Hence, this measure describes the potential of a network actor to act as information broker and provides information about its overall activity level in the network.

### **Factors influencing policy networks**

Jansen (2003) argues that network analysis operates as an integrative tool, bringing together the macro and micro level perspectives of social science. Actors (representing the micro-level) are embedded in a (macro-level) social context (Granovetter, 1985). Accordingly, factors from both these levels will influence the characteristics of networks.

The *level of socio-economic development* provides the general context for any activity undertaken by interest groups. Thomas (1993), Windhoff-Héritier (1993) and Casey (2004) have shown that a rise in standard of living leads to an increase in the number of interest groups. Furthermore, the policy network is affected by the *political environment* in which it operates. A particular policy will attract more attention if it is part (of the solution or the problem) of a political debate at national or global level (Windhoff-Héritier, 1993; Casey, 2004).

The *strength of the state and the interests of state actors* shape the framework for network activity of interest groups. First, the degree of centralization in a state (unitary or federal state; the role of the parliament) determines the access points for interest groups (Thomas, 1993; Windhoff-Héritier, 1993; Daugbjerg and Marsh, 1998). Second, the level of integration or fragmentation of the policy in question influences the strength of the state (Thomas, 1993; Daugbjerg and Marsh, 1998). If a policy area is fragmented, the authority within a state is likely to be spread over (possibly competing) decision-making centres at the national and/or regional level, among state actors at the same administrative level or between the legislative and the executive. In consequence, interest groups can choose among a number of access points if they are seeking to influence policy. Third, in a parliamentary system the role of political parties influences networks. Not only can political parties participate in networks, but interest groups may be affiliated with them and thus have a direct influence within the parliaments (Thomas, 1993). Equally, however, strong political parties can constrain the influence of interest groups (Casey, 2004). Finally, if existing political institutions change or new institutions emerge, the framework for interest group activity changes, and this may affect policy networks (Thomas, 1993; Thatcher, 1998). In addition to its strength, the dominant regime and strategy of the state with regard to the policy in question influences the networks developing in this particular policy sector (Greer, 2002).

Both the political environment and the involvement of the state can vary over the different *phases of the policy cycle* (Greer, 2005), and, accordingly, the relative importance of actors (Windhoff-Héritier, 1993; Casey, 2004). Policy actors that are important in the agenda-setting

phase may not be relevant when it comes to implementing a policy. Global processes can be important for setting the agenda of a national policy, but the policy process may subsequently come to be influenced much more by national interests.

The *preferences for particular policies* and the actions of network actors also influence the network structure (Marsh and Smith, 2000). Actors depend on the *interest and attention* given to them and the policy in question by other actors in the network (Simon, 1982). Furthermore, their *resources* available determine the political action of actors. Networking activities are often limited by financial or time constraints (Casey, 2004). Moreover, network actors – especially non-governmental organizations – have different cultures and ideologies regarding political action. This shapes the way in which they participate in policy networks (Thomas, 1993; Casey, 2004). Another resource of interest groups is the support they enjoy within wider society. The higher the group's membership density and the greater the group sector concentration, the more interest groups can participate in governance of the society (Thomas, 1993).

To sum up, at the level of context it is the degree of socio-economic development, the political environment of the policy area in question, the strength and dominant regime of the state, as well as the phase in the policy cycle that all combine to influence policy networks. At the actor level, it is the strategies and resources of policy actors that affect policy networks.

### **Methodology and research design**

To explore which factors influence organic farming policy networks we have applied the *potentially influential parameters* developed in the previous section. Within the EU, the level of socio-economic development is comparable, offering similar opportunities for interest group engagement in the policy process. However, the varying socio-economic importance of organic farming, as described in the overview article of this issue, could influence organic farming policy networks. The broader context of organic farming policy networks is framed by overriding policy processes, such as the EU accession of the new member countries, food crises such as Bovine Spongiform Encephalopathy (BSE) and Foot and Mouth Disease, and the importance of the debate on the introduction of genetically modified organisms (GMO) into agriculture. State involvement is assessed by the degree of centralization and integration of national organic farming policy, the engagement of political parties in the organic farming policy process, the emergence of state institutions in charge of organic farming, the political recognition of and the general interest of the agricultural ministries in organic farming policy.

At the actor level, the strategy of policy actors was explored by assessing the level of conflict between organic and general farming policy actors (Michelsen et al., 2001; Moschitz et al., 2004) and by considering whether opinion blocks exist with regard to organic farming policy. These opinion blocks were created using a blockmodelling procedure (Burt, 1976; Henning, 2000) based on the question: “*With which policy actors do you share opinions towards organic farming and with whom do you have diverging opinions on this issue?*”. Actors with a similar relational profile were grouped into one block and the relations between these blocks were analysed using the software STRUCTURE (Burt, 1991) which bases blockmodelling on hierarchical clustering (based on the Ward algorithm) of the actors and leaves it to the scientist to test the assignments of actors to blocks. With regard to resources we focused on the size of organic farming organizations, the type of internal relationship within the organic farming community, the political culture of organic farming organizations, as well as the proportion of organic farmers organized in interest groups and the number of organic farming organizations active in the policy field.

Overall we applied a *comparative approach* that focused on five ‘old’ EU member states (Austria, Denmark, ‘England’, Germany and Italy), five ‘new’ member states (Czech Republic, Estonia, Hungary, Poland and Slovenia), and one non-EU country - Switzerland. For all of these countries a quantitative network analysis was carried out, focusing on the question: “*With whom are you working together or with whom do you stay in regular contact in order to exchange your views on organic farming policy?*” As the main information source for the factors influencing these networks, we used results from an analysis of organic farming development in the same European countries, covering institutional changes from 1997 to 2003 within the farming community, the food market, agricultural policy and the institutional setting (Moschitz et al., 2004). National researchers conducted the network survey in their countries in late 2003 / early 2004 following common guidelines and a common questionnaire that had been translated into their native language. In order to identify the boundaries of the networks and thus the actors to be interviewed, the widespread combination of the reputational and positional approach was applied (Kriesi, 1980; Sciarini, 1996). The interviews started with the core policy actors who were asked to name further actors relevant to organic farming policy. This snowballing procedure resulted in 13 to 26 network actors covering organic sector organizations, environmental and consumer groups, farmers’ unions, agricultural and environmental ministries, and administrative bodies. Face-to-face interviews lasted approximately one hour. The results were submitted to the network analyst who analysed all eleven data sets using UCINET software.

## Results

As a remarkable first result, the varying importance of organic farming in the countries is not seen to affect the organic farming policy networks. To explore the influences on policy networks we compare the eleven case study countries in two stages. The first step identifies those factors that co-vary with the size and the density of the networks. The second step applies a most similar system – most different outcome (MSS-MDO) research design to analyse the influences on the power distribution between organic farming organizations and the agricultural ministries.

### Factors co-varying with size and density of networks

Taking size and density as characteristics of organic farming policy networks, it is possible to distinguish two groups of countries (see Table 1). Relatively large (i.e. above the average of 17 members) and simultaneously dense networks are found in Denmark (45.6%), England (31.1%), Austria (24.9%), and Germany (23.9%). In the Czech Republic, Estonia, Hungary, Poland and Slovenia the networks are average to small, and relatively loose, with densities as low as, for example, 7.9% in Estonia.

**Table 1** Size and density of European organic farming policy networks

	<b>size</b>	<b>density</b>
<b>Austria</b>	26	24.9%
<b>Germany</b>	23	23.9%
<b>Switzerland</b>	22	11.7%
<b>England</b>	20	31.1%
<b>Denmark</b>	19	45.6%
<b>Hungary</b>	17	15.8%
<b>Poland</b>	17	17.7%
<b>Slovenia</b>	17	9.6%
<b>Estonia</b>	16	7.9%
<b>Italy</b>	16	21.7%
<b>Czech Republic</b>	13	17.3%
<b>Median</b>	17	17.7%

*Source:* Moschitz and Stolze, 2007; data (national actor interviews, winter 2003/04) based on results of network analysis with UCINET

Examination of the factors that potentially influence policy networks, as described in the theory section above, reveals that it is primarily the political environment that influences the



size and density of such networks. All countries with a small and / or loose network are countries that were about to join the EU when the survey was carried out in 2003/04. They had to take over the *acquis communautaire*, including the CAP with its organic farming regulations. Up to that point, no organic farming policy existed in these countries and the socialist system did not allow for political participation by independent interest groups. It was only the financial EU support for organic farmers starting with the accession process (e.g. through the SAPARD instrument), that triggered the development of organic farming (Hrabalova et al., 2005).

By contrast, in countries with a dense and / or large network, organic farming policy has a longer history. The first state policy on organic farming can be traced back to 1987, when Denmark decided to support organic farming through law no. 363, 10.06.1987 (Lampkin et al., 1999a).

Discussions about agricultural policy at the time of the research were characterized by public concerns over food safety, still influenced by the BSE crisis of the late 1990s. In addition, there was a broad debate about the introduction of GMO into agriculture. In a number of countries organic farming was recognized as a possible solution to food safety problems, and as a way of resisting GMOs. More actors became interested in organic farming policy and interaction between actors increased (Lynggaard, 2006). Moreover, general agricultural policy networks opened up to organic farming policy actors. For instance, in Germany, in response to the BSE crisis, a member of the Green party who had not been connected to the general agricultural policy network before was appointed Minister of Agriculture and opened up this network to organic farming and environmental interest groups. In the United Kingdom, the newly formed Department of Environment and Rural Affairs (DEFRA) integrated sustainable development issues, thereby reinforcing the justification for greater support for organic farming. In Austria, the government became increasingly interested in organic farming as part of the discussions on national sustainability strategies and the Kyoto Protocol implementation.

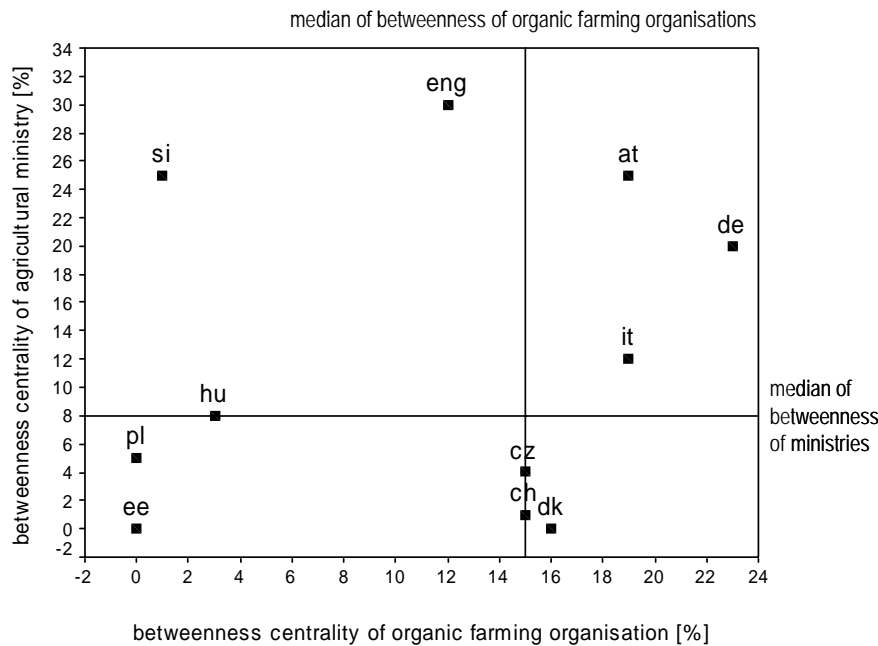
To sum up, the strongest influence on size and density of organic farming policy networks in Europe came from policy processes that changed the political environment of organic farming.

### **Factors influencing the distribution of power between organic farming organizations and agricultural ministries**

Taking the importance of overarching political processes as read, we identified two sets of 'most similar systems': the new and the old EU member states (including Switzerland). The

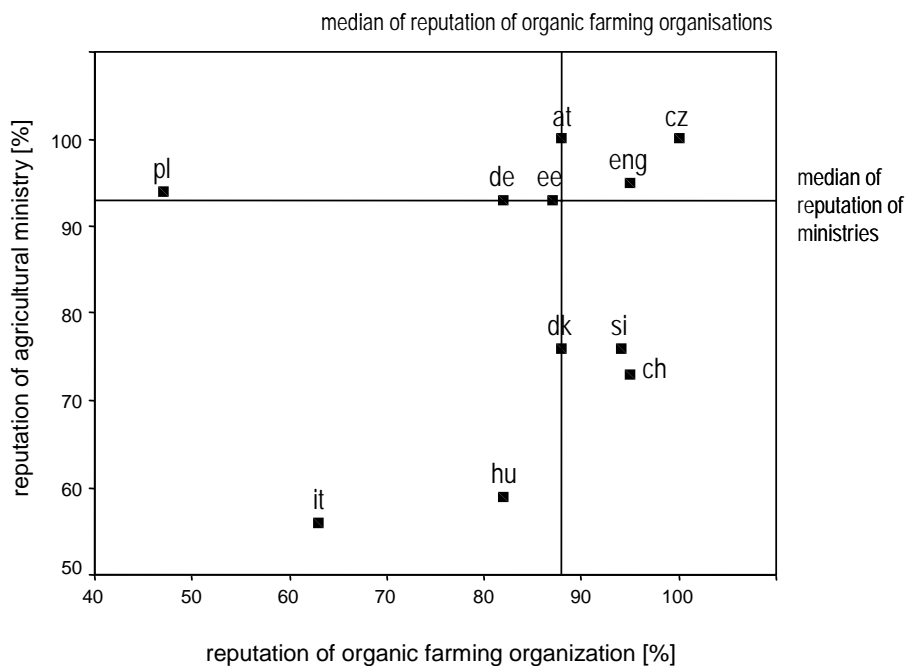
‘most different outcome’ relates to the different roles played by organic farming organizations and agricultural ministries in the organic farming policy network, using betweenness centrality and reputation to describe their power. Figures 1 and 2 below illustrate these different power distributions.

**Figure 1: Betweenness centrality of agricultural ministries and organic farming organizations in European organic farming policy networks**



Source: Moschitz and Stolze, 2007

**Figure 2 Reputation of agricultural ministries and organic farming organizations in European organic farming policy networks**



Source: Moschitz and Stolze, 2007

In one ‘most similar’ group of countries we contrast the Czech Republic with Poland, Estonia, Hungary and Slovenia; in a second ‘most similar’ group Switzerland and Denmark are contrasted with Austria and England.

#### *Czech Republic versus Poland, Estonia, Hungary, Slovenia*

In this group of new EU member states, only in the Czech Republic the organic farming organization is powerful both with respect to influence (betweenness centrality 15%) and perceived power (reputation 100%). In none of the other new EU member states is the organic farming organization particularly active, having little influence on organic farming policy. Betweenness centrality scores range from 0% in Estonia and Poland to 3% in Hungary, and reputational power is considerable only in Estonia (87%) and Slovenia (94%).

In Estonia, the Czech Republic and Poland the influential power of the agricultural ministry is low (betweenness centrality ranges from 0% to 5%), whereas its reputation for organic farming policy is relatively high, with scores from 93% to 100%. By contrast, the agricultural ministry in Slovenia is influential, with a betweenness centrality of 25%, but it has a relatively low reputation score (76%) in terms of its impact on organic farming policy. In Hungary, the agricultural ministry is neither influential nor perceived as powerful.

As shown in the previous section, the political environment for organic farming is similar within the group of new EU member states. Accordingly, the different power distributions between the organic farming organization and the agricultural ministry must be explained by reference to differences in the regime of the state or to different strategies and actions of policy actors. In Estonia, Hungary, Poland and Slovenia, experts described the agricultural ministry as not especially interested in organic farming policy. In the Czech Republic organic farming organizations had managed to approach the agricultural minister and to lobby for their cause at the time of the breakdown of the socialist system in 1990. Although the ministry has shown less interest and openness recently, organic farming enjoys greater political recognition in the Czech Republic than in the other new EU member states (Moschitz et al., 2004).

Both the strategies of policy actors and the resources of organic actors influence the policy networks in the new EU member states. In the Czech Republic, policy actors showed a higher

interest in organic farming policy. Blockmodelling resulted in the distillation of different opinion blocks, and a debate about organic farming policy actually took place there, though not in the other new member countries. Furthermore, the Czech organic farming organization engaged in the policy making process very early and developed a political tradition with several outstanding individuals lobbying for their case (Moschitz et al., 2004; Hrabalova et al., 2005). At the same time, Czech organic farmers developed a common vision of organic farming policy. In the other countries, the lack of resources hampers the organic farming organizations' engagement in policy making. They are not experienced in policy making, and, with the exception of Slovenia, only a small proportion of organic farmers (about 10-20%) are members of an organic farming organization. Hence, the basis as an interest group is fairly weak. In Poland the organic farming community is split into several organizations that are spread over the country and do not collaborate. In Hungary, organic farming is strongly oriented towards the (export) market and state policies therefore seem to be of no importance to most organic farmers.

#### *Switzerland and Denmark versus Austria and England*

In the second group of 'most similar' countries the strongest difference in outcome, i.e. the relative power of organic farming organizations and agricultural ministries, occurs between Switzerland and Denmark on the one hand and Austria and England on the other. In both Switzerland and Denmark the organic farming organizations are powerful in terms of influence (betweenness centrality: 15% and 16%, respectively) and in terms of their perceived power, i.e. reputation (95% and 88%). At the same time, the agricultural ministries are not very active and therefore have only little influential power, and also their reputation in to influence organic farming policy is relatively low. By contrast, organic farming organizations and agricultural ministries in Austria and England are equally powerful in both types of power and are thus located in the upper right quadrant in the charts shown in Figures 1 and 2.

As in the previous group, these differences in power distribution between the agricultural ministry and the organic farming organization are explained by the different regimes of the state, variations in the strategies of policy actors and by the different resources of organic farming policy actors. In all four countries organic farming is recognized as an alternative to mainstream farming (Michelsen et al., 2001). However, the agricultural ministries are not equally involved in organic farming policy making. In Switzerland organic farming policy had been debated extensively in the 1990s and at the time of the survey only technical issues were under discussion. Similarly, in Denmark organic farming policy was discussed mainly

from an implementation perspective with no politicized debate. Furthermore, with a change in the Danish government the state interest in organic farming policy decreased. By contrast, in both Austria and England organic farming was an issue of policy debate in 2003/04. In Austria the agricultural ministry initiated the restructuring of the organic farming network which culminated in the creation of a new umbrella organization, Bio Austria. In England, an Organic Action Plan group was set up in 2002 by the Department for Environment, Food and Rural Affairs (DEFRA), the responsible administrative body for organic farming, and work was still going on in 2003/04 (DEFRA, 2002). In consequence, we find a more active state in Austria and England, explaining its higher betweenness centrality. In Switzerland and Denmark the state has taken a more background role in the policy process, leaving it to organic farming organizations. These interest groups have succeeded in retaining their powerful role in the policy network even though there is currently little political debate about organic farming.

General agricultural policy actors in Switzerland and Denmark were more open to a constructive political debate on organic farming policy than in Austria and England (Moschitz et al., 2004). The relationship between organic farming institutions and general agricultural policy actors was characterized by “creative conflict” (Michelsen et al., 2001) in Switzerland and Denmark, it was “co-operation” in Austria and England, given the limited power of organic farming organizations. Although facing the same limitations in terms of finances and size, organic farming organizations in Switzerland and Denmark are better resourced for engaging in policy making. Their constituency is stronger than in Austria and England; in Austria in particular, the internal discussions about restructuring the organic sector (see above), took up much of the community’s resources (Moschitz et al., 2004). Additionally, organic farming organizations enjoy a greater reputational power in general agricultural policy in Switzerland and Denmark than in Austria and England. This indicates that they enjoy greater recognition in politics generally in the former countries and may thus have easier access to the policy making process.

### *Comparison*

Both comparisons of the two ‘most similar’ sets of countries yielded the result that similar factors influence the role of organic farming organizations and agricultural ministries in the organic farming policy networks. The dominant regime of the state, the strategies of network actors and the resources of organic farming organizations influence the distribution of power between actors in the networks. A current debate about organic farming policy involving the

agricultural ministry enhances the reputational power of the ministry. However, an ongoing debate does not automatically lead to the ministry having greater influential power (measured by its betweenness centrality). Such a high level of influential power on the part of the agricultural ministry can be observed only in countries with a longer history of organic farming (Austria and England), but not in the country where this sector is emerging strongly (Czech Republic). It thus seems that in this country the policy debate on organic farming is strongly influenced by the organic farming organization.

At the same time, whether or not organic farming is currently an issue of public debate has no impact on the influential or reputational power of organic farming organizations. The betweenness centrality of these organizations is considerably high in Denmark and Switzerland, even though organic farming policy is not of great importance in current agricultural policy debates. A general interest on the part of the state is necessary in order to allow organic farming organizations to participate in the policy network, but the cases of Switzerland and Denmark show that, once a member of the network, organic farming organizations can remain influential even if the agricultural ministry becomes less active in organic farming policy.

In summary, a prerequisite for exerting influential power in organic farming policy networks over the longer term is the availability of resources, and in particular a strong organic farming community that supports the networking activity of organic farming organizations. In those countries where the community is unified and not affected by internal conflicts, the organic farming organization occupies a monopoly position in the network of influence. Furthermore, an established culture and ideology regarding political action is a precondition for organic farming organizations to influence policy networks.

## **Conclusion**

The method of network analysis applied in this study was a valuable tool for the focus of our research. First, as a reductionist approach, the quantitative network analysis helped to master the complexity of eleven networks. While it lacks detailed insight into each national network, it represents a basis for a general comparison across countries. Second, the network analysis led to counter-intuitive results (Sciarini, 1996). In the introduction we suggested that organic farming policy networks look different to those of general agricultural policy, and in fact they are composed of different policy actors (Moschitz and Stolze, 2007). However, power within both types of networks is distributed between the state and the respective organization representing farmers, be it organic or mainstream. This observation is supported by an

analysis at EU level, in which Moschitz and Stolze (2007) have demonstrated that environmental and consumer groups are members of organic farming policy networks, but do not usually occupy a powerful position. Furthermore, against the background of the accession of Central and Eastern European Countries to the EU, one might expect large differences in the policy networks between these countries and the 'old' EU member states. Indeed, the organic farming policy networks in these two country groups vary in size and density, but not with regard to the distribution of power between the organic farming organization and the agricultural ministry. Thus, organic farming policy networks cannot be classified by simply distinguishing between old and new EU member states.

Hence, merely taking into consideration overarching policy processes, such as the accession process to the EU, is not sufficient to explain variation across organic farming policy networks. Greer (2005) has already stressed the importance of national processes for explaining differences between countries in transposing EU agricultural policy. On the basis of our comparative network analysis we conclude that the political environment, the dominant regime of the state, and the strategies and resources of network actors influence policy networks and thus the policy making process of organic farming in European countries.

## References

- Adshead, M. (1996) 'Beyond clientilism: agricultural networks in Ireland and the EU', *West European Politics* 19 (3): 583-608.
- Burt, R. S. (1976) 'Positions in networks', *Social Forces* 55: 93-122.
- Burt, R. S. (1991) *Structure*, 4.2, Reference Manual, New York: Columbia University.
- Casey, J. (2004) 'Third sector participation in the policy process: a framework for comparative analysis', *Policy & Politics* 32 (2): 241-57.
- Daugbjerg, C. (1998) 'Similar problems, different policies: policy networks and environmental policy in Danish and Swedish agriculture', in Marsh, D. (eds), *Comparing Policy Networks*, Buckingham: Open University Press, pp. 75-89.
- Daugbjerg, C., Marsh, D. (1998) 'Explaining policy outcomes: integrating the policy network approach with macro-level and micro-level analysis', in Marsh, D. (eds), *Comparing Policy Networks*, Buckingham: Open University Press, pp. 52-71.
- DEFRA (2002) *Action Plan to develop organic food and farming in England*, London: Department for Environment, Food and Rural Affairs.

- Dowding, K. (1994) 'Policy networks: don't stretch a good idea too far.' in Dunleavy, P., J. Stanyer (eds), *Contemporary Political Studies*, Belfast: Political Studies Association.
- Dowding, K. (2001) 'There Must Be End to Confusion: Policy Networks, Intellectual Fatigue, and the Need for Political Science Methods Courses in British Universities', *Political Studies* 49: 89-105.
- Freeman, L. C. (1978/79) 'Centrality in Social Networks. Conceptual Clarification', *Social Networks* 1: 215-239.
- Granovetter, M. (1985) 'Economic action and social structure: The problem of embeddedness', *The American Journal of Sociology* 91 (3): 481-510.
- Greer, A. (2002) 'Policy Networks and Policy Change in Organic Agriculture: A comparative analysis of the UK and Ireland', *Public Administration* 80 (3): 453-473.
- Greer, A. (2005) *Agricultural policy in Europe*, European Policy Research Unit Series, Manchester: Manchester University Press.
- Henning, C. H. C. A. (2000) *Macht und Tausch in der europäischen Agrarpolitik. Eine positive Theorie kollektiver Entscheidungen*, Frankfurt a. Main: Campus.
- Henning, C. H. C. A., Wald, A. (2000) 'Zur Theorie der Interessenvermittlung: Ein Netzwerkansatz dargestellt am Beispiel der Gemeinsamen Europäischen Agrarpolitik', *Politische Vierteljahresschrift* 41 (4): 647-676.
- Hrabalova, A., Handlova, J., Koutna, K., Zdrahal, I. (2005) *Final report on the development of organic farming in ten selected CEE countries with national report cards*, EU-CEE-OFP. Further Development of Organic Farming Policy in Europe with Particular Emphasis on EU Enlargement, Project report, Prague.
- Jansen, D. (2003) *Einführung in die Netzwerkanalyse*, Opladen: Leske + Budrich.
- Jordan, G., Maloney, W., McLaughlin, A. (1994) 'Characterizing agricultural policy making', *Public Administration* 72: 505-526.
- Jordan, G., Schubert, K. (1992) 'A preliminary ordering of policy network labels', *European Journal of Political Research* 21 (1-2): 7-27.
- Kenis, P., Schneider, V. (1991) 'Policy Networks and Policy Analysis: Scrutinizing a New Analytical Toolbox', in Marin, B., R. Mayntz (eds), *Policy Networks: Empirical Evidence and Theoretical Considerations*, Frankfurt a. Main: Campus, pp. 25-61.



- Kephart, W. M. (1950) 'A quantitative analysis of intragroup relationships', *American Journal of Sociology* 55: 544-549.
- Knoke, D., Burt, R. S. (1983) 'Prominence', in Burt, R. S., M. J. Minor (eds), *Applied Network Analysis*, Beverly Hills: Sage, pp. 195-222.
- Kriesi, H. (1980) *Entscheidungsstrukturen und Entscheidungsprozesse in der Schweizer Politik*, Frankfurt a. Main: Campus.
- Lampkin, N. H., Foster, C., Padel, S. (1999a) *The Policy and Regulatory Environment for Organic Farming in Europe: Country Reports*, Organic Farming in Europe: Economics and Policy 2, Stuttgart: Universität Hohenheim.
- Lynggaard, K. (2006) *The Common Agricultural Policy and Organic Farming. An Institutional Perspective on Continuity and Change*, Wallingford: CABI.
- Marsh, D., Smith, M. (2000) 'Understanding policy networks: towards a dialectical approach', *Political Studies* 48 (1): 4-21.
- Marsh, D., Smith, M. (2001) 'There is More than One Way to Do Political Science: on Different Ways to Study Policy Networks', *Political Studies* 49: 528-541.
- Michelsen, J., Lynggaard, K., Padel, S., Foster, C. (2001) *Organic Farming Development and Agricultural Institutions in Europe: A Study of Six Countries*, Organic Farming in Europe: Economics and Policy 9, Stuttgart: University of Hohenheim.
- Moschitz, H., Stolze, M. (2007) *Policy networks of organic farming in Europe*, Organic Farming in Europe: Economics and Policy 12, Stuttgart: University of Hohenheim.
- Moschitz, H., Stolze, M., Michelsen, J. (2004) *Report on the development of political institutions involved in policy elaborations in organic farming for selected European states*, EU-CEE-OFP. Further Development of Organic Farming Policy in Europe with Particular Emphasis on EU Enlargement, Project report, Frick.
- Pappi, F. U., Henning, C. H. C. A. (1999) 'The organization of influence on the EC's common agricultural policy: A network approach', *European Journal of Political Research* 36: 257-281.
- Schneider, V. (1992) 'The structure of policy networks. A comparison of the 'chemicals control' and 'telecommunications' policy domains in Germany', *European Journal of Political Research* 21 (1-2): 109-129.

- Sciarini, P. (1996) 'Elaboration of the Swiss Agricultural Policy for the GATT Negotiations: a Network Analysis', *Schweizerische Zeitschrift für Soziologie* 22 (1): 85-115.
- Simon, H. A. (1982) 'Rational Decision Making in Business Organizations', in Simon, H. A. (eds), *Models of bounded rationality: The Massachusetts Institute of Technology*, pp. 493-513.
- Smith, M. (1992) 'The agricultural policy network: maintaining a closed relationship', in Rhodes, R. A. W., D. Marsh (eds), *Policy networks in British government*, Oxford: Clarendon Press.
- Thatcher, M. (1998) 'The Development of Policy Network Analysis. From modest origins to overarching frameworks', *Journal of Theoretical Politics* 10 (4): 389-416.
- Thomas, C. S. (1993) *First World Interest Groups: A Comparative Perspective*, Westport: Greenwood Press.
- Tovey, H. (1997) 'Food, Environmentalism and Rural Sociology: On the Organic Farming Movement in Ireland', *Sociologia Ruralis* 37 (1): 21-37.
- Van Waarden, F. (1992) 'Dimensions and types of policy networks', *European Journal of Political Research* 21 (1-2): 29-52.
- Wassermann, S., Faust, K. (1999) *Social Network Analysis: Methods and Applications*, New York: Cambridge University Press.
- Windhoff-Héritier, A. (1993) 'Policy Network Analysis: A Tool for Comparative Political Research', in Keman, H. (eds), *Comparative politics. New directions in theory and method*, Amsterdam: VU University Press, pp. 143-160.