INFORMATION EXCHANGE AMONG ENVIRONMENTAL GROUPS IN

ALABAMA AND ROMANIA

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INFORMATION EXCHANGE AMONG ENVIRONMENTAL GROUPS IN ALABAMA AND ROMANIA

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DISSERTATION ABSTRACT

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According to resource mobilization theory, organizations need certain resources such as skills, money, and knowledge, to survive. For this research I consider information to be a key resource and use the resource mobilization theory to examine information exchange for 1) environmental groups in Alabama and 2) forestry nonprofits in Vrancea County, Romania. For nonprofit organizations, information is recognized in the literature as important, but the types and methods of information exchange often are not detailed. Obtaining reliable information is important for establishing credibility with citizens, politicians, regulators, and media.

For the Alabama research, semi-structured, face-to-face and phone interviews were conducted with 136 of the 168 environmental groups thought to be active in

Alabama. Data were collected on group attributes and the type and method of information exchange. The ideologically structured action framework is used to explain why environmental groups choose to exchange information with other groups. Social network analysis is used to examine the network structure of information exchange among these organizations. This research found that Alabama environmental groups are diverse in terms of their activities and ideology. Environmental groups with paid professional staff were the central groups in information exchange.

The second part of the research examined forestry nonprofits in Vrancea County, Romania. The main objectives for this research are to examine the three main types of forest nonprofit actors, how information resources are mobilized, what the links are to other groups, and why nonprofits choose particular options available to them. Five weeks were spent in Romania performing semi-structured interviews with leaders of the three forest nonprofits types (*obste* - a type of community forest, forest association, and private forest district) in Vrancea County, Romania. Social network analysis was used to examine the network structure of information exchange of the forest nonprofits. *Obste* have local knowledge and require scientific and regulatory knowledge about their forest from the private forest districts and forest associations. The forest associations are comprised of several *obste* and provide a larger voice for the *obste*. The private forest districts are central actors in the information exchange network, providing a link between local *obste* and the government forestry sector. Problems of distrust limit the effectiveness of information exchange between different groups.

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CHAPTER 1

INTRODUCTION

Within the past few decades there has been strong interest in social institutions that operate outside of the market and the state (Salamon, Sokolowski, and Anheier 2000). The increased interest in social institutions is due in part to doubts about the ability of states to cope with problems such as social welfare, development, and the environment (Bryant and Bailey 1997; Salamon, Sokolowski, and Anheier 2000). These nonprofit and nongovernmental organizations are not waiting for politicians to put welfare or ecological issues on the agenda (Giddens 1998). Instead, these organizations have been able to "flex their muscles on the world scene" so that both corporations and states take notice (Giddens 1998, p. 50).

In order to understand the importance of the nonprofit sector, it is critical to understand the relationships of these actors and other organizations (Brock and Banting 2001). This research looks at these nonprofit organizations, in two separate studies of environmental groups in Alabama and forestry nonprofits in Romania, to understand how these groups obtain and exchange information. A structural approach is used to observe the patterns of information exchange for these groups in Alabama and Romania. Identifying these information networks helps provide a bridge between structure (institutions) and agency (individuals) (Passy 2003; Halperin 1994) to see how resources,

such as information are exchanged. According to resource mobilization theory, organizations need resources such as legitimacy, skills, labor, expertise, money, supplies, and tacit knowledge to survive (McCarthy and Zald 1977; Edwards and McCarthy 2004). For this research, I consider information to be a key resource. Gaining access to reliable information is crucial to establishing credibility with citizens, politicians, regulators, and the media.

To understand the structure of information exchange in Alabama and Romania, social network analysis is used. Social network analysis examines actors and the ties between them (Wasserman and Faust 1994). By looking at the ties or relationships between actors we can understand the social structure of these nonprofits with respect to information.

The Alabama research is significant in that it examines environmental groups at a scale not often used when studying the environmental movement. This research includes both state and local, professional and grassroots, environmental organizations in Alabama. The Alabama research is separated into two chapters. Chapter two discusses the types and method of information exchanged. Attributes of the Alabama environmental groups are discussed. Chapter three examines the network structure of information exchange in Alabama, taking into consideration a group's identity or ideology. Dalton's (1994, p. 11) ideologically structured action framework is used to explain how the "ideology and identity of a group determine the specific options available to a group and its choice between available options." Chapter three uses this ideologically structured action framework to explain why groups choose to work with

particular groups. Social network analysis is used to show the network structure of information exchange. Other opportunities and constraints that may affect information exchange also are discussed.

The Romania research is discussed in Chapter four. For the first time in forty years, Romanian society has the ability to form nonprofit organizations (Johnson and Young 1997). Also, for the first time in forty years Romanian forest land has returned to private ownership. Examining information exchange among forestry nonprofits and their interaction with other organizations is important to shed light on how these social institutions operate. Chapter four describes the attributes of the three main types of forestry nonprofits in Vrancea County. The type and method of information exchange is discussed and social network analysis is used to represent this exchange. The limitations to information exchange, such as absence of trust, are also mentioned.

Overall, this research shows how nonprofits that operate outside the market and state are able to obtain and provide information to change policy, influence industry, and inform citizens. Social network analysis is used to explore the structure of information exchange of the nonprofit sector within the two research settings.

CHAPTER 2

RESOURCE MOBILIZATION AND INFORMATION AS A RESOURCE FOR ENVIRONMENTAL GROUPS

Environmental groups play an important role in society by changing policy, influencing industry, and informing citizens. Within the environmental movement, local environmental groups are the "key to building the social and cultural infrastructure necessary for sustained environmental practices" (Kempton et al. 2001, p. 558) and they "emerge when traditional state-based regulatory mechanisms fail to control what are perceived as the illegal and harmful acts of local polluters" (Cable and Benson 1993, p. 464-465). Compared to government agencies and corporate actors, however, such groups can be limited by their levels of technical expertise and access to key information necessary for environmental advocacy.

In this paper, I consider information to be a key resource and use resource mobilization theory to examine how organizations in the environmental movement obtain and exchange information. This research adds to the resource mobilization literature by examining information as a resource for environmental movement groups in Alabama. A wide range of interests are represented by these groups (recreation, conservation, preservation, environmental health, environmental justice, wildlife, water resources) reflecting the complex and diverse ecosystems found within Alabama.

According to resource mobilization theory, organizations must obtain a variety of resources from inside and outside their organization to survive (McCarthy and Zald 1977). Examples of these resources include legitimacy, support, tacit knowledge about specific tasks, labor, skills, expertise, money, equipment and supplies (Edwards and McCarthy 2004). These resources are unequally divided among social groups and resource mobilization examines how these groups "overcome prevailing patterns of resource inequality" (Edwards and McCarthy 2004, p. 118).

This research focuses on information as a key resource for two reasons. First, specific details of types of information environmental groups possess or need from others is not well-covered in the literature. Information is often mentioned as a necessary resource, but detail on the types of information needed by both grassroots and professional environmental groups is lacking. Pierce et al. (1992) point out that little work has been done to show how different kinds of information are exchanged. One reason for the lack of work on information may be because knowledge or information is not easy to quantify. Schartinger et al. (2002) note that knowledge creation and knowledge diffusion are difficult to measure since they are not tangible activities.

Second, information resources are used because information is critical in the environmental movement. Jasanoff (1997, p. 581) suggests that "Environmental action often demands the transfer of knowledge, skills, technology or other material resources from places where they are readily available to places where they are in relatively short supply." Carmin (1999) explains that when a local issue arises, residents concerned about the issue take action even though they may have limited experience in politics or

environmental advocacy. Local environmental groups are often all volunteer with no background in environmental issues and operate with very limited funding, time, and experience. Gaining access to reliable information is key to establishing credibility with citizens, politicians, environmental regulators, and the media. Effective environmental groups often become acknowledged experts and, to the extent that this is true, become effective advocates. To become and remain effective, environmental groups need to obtain information from a variety of sources and share that information with others.

This research is also significant in that it examines the information resource at the state and local level. Many different types of environmental organizations are found in Alabama and the types of information needed and the manner in which information is gained and exchanged reflects this diversity. This study contributes to the literature by documenting how (and to what extent) diverse groups at multiple levels exchange information, even though they may have different tactical and ideological perspectives on the environmental movement. Much of the literature on environmental groups is either at the national or international level or is a case study on a small cluster of groups. For example, Mario Diani (1995) researched environmental networks in Italy and Russell Dalton (1994) examined professional environmental groups in Western Europe. Several others have studied national and international groups (e.g. Keck and Sikkink 1999; Brulle 2000; Rohrschneider and Dalton 2002). Most research at the local level, with a few exceptions (Andrews and Edwards 2005; Kempton et al. 2001; Savage, Isham, and Klyza 2005), examines local groups in a particular locale or focuses on a particular issue. This study examines patterns of information exchange between state and local groups, as well

as state chapters of national organizations.

Research suggests local grassroots environmental groups display some differences from the national professional groups. National groups tend to mobilize technical, scientific and legal talents to engage regulatory and court systems, focusing on issues or broad impact and appeal (Gottlieb 1993). They also tend to be competitive rather than cooperative with peer groups as they carve out niches that elicit financial support from foundations and the general public. In contrast, Marshall (2002, p. 5) notes, "Since the power of grassroots groups largely lies in human energy, not financial clout, the most successful environmentalists worked hard to forge connections with other organizations, share strategies, and form alliances in their struggles. In doing so, they built a network of knowledgeable grassroots organizations and individuals . . . ." Members of grassroots organizations are usually recruited through personal contact (Brulle 2000) and neighbors, friends, relatives, and acquaintances are more likely to be involved in similar groups at the local level.

Another difference is that, compared to national, professional organizations, grassroots groups are not as concerned with national policy and focus more on local problems such as air and water quality that affect their everyday lives (Cable and Benson 1993). Those people who live close to a problem are better able to find an appropriate solution because they have experience relevant to that issue (Roush 2001). But to solve an issue, local groups may need outside experience as well as sharing their knowledge of a topic. For example, Carmin (1999, p. 116) found the local groups "alert their local communities to important issues as well as sensitize the broader public to emerging

problems. Professional organizations provide an ongoing presence for environmentalism."

Another key reason to look at state and local environmental groups is because of the variation that occurs among these groups. One criticism of the resource mobilization theory is that it fails to take into account the variation that occurs among groups (Dalton 1994). But as Jasanoff (1997) points out, environmental groups do not conform to a simple taxonomy. Studies have found that local environmental groups are more diverse than previously documented (Kempton et al. 2001).

This study will contribute to our understanding of diversity among grassroots environmental groups. How researchers describe diversity may not always match taxonomy of local environmental groups. Andrews and Edwards (2005) found that most groups do not sort themselves into mutually exclusive categories and instead use three to four labels to describe themselves. Examples of environmental group classifications found in the literature include categories such as agriculture, outdoor recreation, and environmental groups (Savage, Isham, and Klyza 2005); conservation and ecology groups (Dalton 1994); conservation and political ecology groups (Diani 1995); and voluntary, mixed, and fully professionalized groups (Andrews and Edwards 2005). For this research, I divide the Alabama environmental groups into essentially three categories brought forth by Andrew Jamison (2001) - community, professional, and personal. A detailed description of these three categories is provided later.

The main goal of this research is to understand information exchange among environmental groups in Alabama. The two main objectives for this research are to

examine the type of information exchanged and method environmental groups use to exchange information. Information related to an organization's goals is the focus because in order for organizations to survive, they need to attain the goals they set for themselves (Gross 1969). For the purpose of this paper, information sharing or information exchange is the giving or receiving of information that supports the goals of either organization. Exchange of information can occur through face-to-face contact, phone calls, emails, newsletters, websites, seminars, conferences, etc. The network structure of information exchange among environmental groups is discussed in the next chapter.

Research Setting

Alabama is a very diverse state with 70 percent forest land (Stein 2002) and 77,000 miles of streams that span from the mountains in north Alabama to the Gulf of Mexico in the south. Alabama ranks 5th in the United States in terms of species diversity (Stein 2002) and 49th in environmental protection (Kromm, Ernst, and Battica 2000). However, Alabama has a variety of environmental groups addressing issues ranging from water and air pollution, agriculture, development, clearcutting, loss of habitat, environmental education, and reforming the Alabama Department of Environmental Management (ADEM).

Since the mid-1990s, the Alabama Grassroots Clearinghouse has provided a regularly updated database of Alabama environmental organizations (Bailey, Dubois, and Robinson 2005). Over the past seven years as Clearinghouse manager, I maintained frequent contact with environmental groups and citizens across the state through this

website, staying abreast of changes in numbers and types of groups and environmental concerns across Alabama. Environmental groups as a whole are difficult to study because many are very informal, do not have a 501(c)(3) tax-exempt status, and are short-lived (Carmin 1999). This complicates efforts to understand, in any systematic fashion, the range and number of organizations formed out of concern for the environment. In Alabama, data on environmental organizations has been collected over a ten-year period through the Clearinghouse, affording a uniquely rich starting point for this research.

Methods

This research examines how information is exchanged among environmental groups in Alabama. There are 168 environmental groups including agriculture, education, forestry, general, land trusts, plants, recreation, water, wildlife, and other groups (Appendix A). I follow Kempton et al. (2001, p. 561) in defining environmental groups as

> "a self-named, voluntary collection of people (or member organizations) who agree on some part of a view of the ethical or appropriate relationship between humans and the world around them, who communicate with each other about this topic, and who perform action in a particular venue in order to advance their view of it."

In addition to this definition, I followed Andrews and Edwards (2005, p. 216-217) by limiting myself to the following criteria: 1) all groups have an Alabama mailing address; 2) subunits are separate organizations; 3) groups make public interest claims (not industry

groups); 4) no high school or college groups; and 5) excludes state agencies.

Several sources were used to compile the list of Alabama environmental groups for this research. First, a list of environmental groups was compiled from the Alabama Grassroots Clearinghouse (Bailey, Dubois, and Robinson 2005). Second, an internet search of newspaper articles, newsletters, websites, and other Alabama directories, like the Alabama Rivers Alliance Directory, was used to cross-check active groups, as well as to add new groups to the list.

A combination of face-to-face and phone interviews were conducted from September 2005 through January 2006. Every attempt was made to contact all Alabama environmental groups. Each environmental group was contacted by telephone or email at least three times. Once the interviews were conducted, it became evident that some groups did not fit the criteria noted above and these groups were removed from the list. Of the 168 environmental groups thought to be active in Alabama, 136 groups were interviewed. The remaining thirty-two did not respond to phone or email messages.

Seventy-eight face-to-face interviews and fifty-eight phone interviews were conducted. Interviews were conducted with a leader or leaders of environmental groups such as the executive director, president, or other person familiar with regular activities of the group. Questions were directed to the organization and not the individual, although often it was difficult to separate an individual from the group.

Interviews were not tape-recorded but detailed notes were taken during the interviews and written-up immediately afterwards. Therefore, remarks attributed to respondents are paraphrased comments from the respondents and not direct quotes.

Interview questions were divided into two parts (Appendix B). The first set of questions pertained to attributes of the environmental group. The second set of questions related to whom environmental groups exchanged information, whether it was other environmental groups, government agencies, industry, media, etc. Simmons' (1998) taxonomic approach to classifying nongovernmental organizations was the basis for the attribute questions. Simmons (1998) suggests that it is useful to understand what nongovernmental organizations do (goals, activities, area of operation), who members are (types of members, geographic range of members, and personnel type), and where funding comes from (dues, grants, foundations, etc.).

Results and Discussion

The desire to protect and improve the environment by changing policy, influencing industry and informing citizens is the primary motive of most environmental groups. Using the resource mobilization theory, I examine what information environmental groups possess and what information environmental groups need. Below I discuss the attributes of environmental groups in Alabama. I then describe the type of information exchanged followed by the method of information exchange.

Attributes of Environmental Groups

Attribute data was obtained primarily from interviews and supplemented with secondary sources such as the internet or printed literature from the environmental groups. Key attributes of interest include year established, why groups began, group

activities, geographic focus, belonging to another group, funding, and staffing. Table 2.1 is a summary of the attributes of Alabama environmental groups.

Table 2.1 Summary of attributes of Alabama environmental group

Attribute	Percent
Year began (n = 133)	
Before 1970	6.8
1970-1979	13.5
1980-1989	18.0
1990-1999	39.8
2000-2006	21.8
Why formed (n = 113)	
Similar interests/broad concerns	71.0
Oppose particular project	29.0
Activities (n = 168)	
Water	32.7
General	30.3
Recreation	10.1
Wildlife	9.5
Plants	4.2
Education	3.0
Land Trust	3.0
Other	3.0
Forestry	2.4
Agriculture	1.8
Geographic focus (n = 168)	
Local	73.8
Statewide	22.6
National or international	3.6
Belong to another group (n = 168)	
Independent	76.2
Chapter of a national organization	17.9
Chapter of a state organization	5.4
Staffing (n = 136)	
All volunteer	70.0
Paid staff	30.0

Year Began

It is important to understand when and how the groups began and their primary activities because this may affect the type of information that is exchanged, availability of resources, urgency of activities, and length of group existence. Most environmental groups in Alabama were established since 1990 (table 2.1). Groups that have been around the longest, forming in the first half of the 20th century, are wildlife or recreation groups. Most of the environmental groups that focus on local issues, either town, city, or multi-county, started in the 1990s or 2000s. This is also the case with the water groups, beginning in the 1990s or 2000s, with the exception of some of the lake groups that began in the 1970s and 1980s.

Why Formed

Information collected on why groups began was divided into two categories. Thirty-three environmental groups (29 percent) were formed to fight a particular project such as a quarry, landfill, golf course, or a dam. Eighty environmental groups (71 percent) began because members shared either similar interests or broad concerns such as backpacking, interest in native plants, concern over the rapid decline of an animal population, or desire to improve water quality in lakes and rivers.

Although groups began in opposition to a specific project, they often changed their focus once the issue had been resolved. Most of these groups modified their initial purpose, expanding to become involved in youth education, citizen awareness, water monitoring, and river or lake cleanups. Since I only interviewed active organizations,

those whose sole purpose was to fight a project and became inactive after they won or lost the issue are not included.

Activities

Table 2.1 shows the ten broad activities of environmental groups in Alabama. Almost a third of the groups focus on water issues and another third focus on general broad spectrum of issues. It was rare to find a group that had only one specific goal or purpose. A group whose primary focus is water may focus on water quality monitoring, river and lake cleanups, land use planning, watershed management, and educational activities. The established state groups focused on a variety of aspects of the environmental movement from air, water, waste, enforcement and sustainable land issues. Even very small local groups have several activities like water monitoring, environmental education, and participation in local government. This is important because it shows that even a small group focused on a local creek is going to need a broad spectrum of information to carry out all of their activities. They may be able to get their information from one source, but are more likely to obtain information from several sources.

Geographic Focus

Environmental groups can be distinguished on the basis of geographic focus, whether they are associated with other groups, how (or whether) they raise funds, and whether they have a volunteer or paid staff. Almost 75 percent of the environmental groups have a local focus, meaning they work anywhere from a neighborhood level to a

multi-county level. For example, groups may work on a local creek, while others direct their efforts across multiple counties to the entire watershed. One-quarter of all environmental groups were non-local, meaning they had a state, national or an international focus. The majority of these non-local groups focused on statewide issues and only a handful were national or international groups.

Belong to Another Group

Most groups (76 percent) emerged independently rather than as part of a state or national group. Only about 18 percent of the groups were a chapter of a national organization and 5 percent were a chapter of a state organization. Groups that have access to a national or state chapter are likely to have established networks and resources. For example, the local Waterkeeper Alliance groups have the national chapter available as an information resource. Since almost three-quarters of the groups emerged independently from another group, they do not have a built-in source of information. Where do they turn to get information?

Funding

Many of the groups obtained their funding from multiple places. Most environmental groups' funding (76 percent) comes internally from the group's efforts of collecting dues, donations, or through fundraisers, although some groups received funding from more formal outside sources such as grants from foundations. Ten percent of environmental groups have no funding at all.

Staffing

Even though most environmental groups in Alabama receive some funding, the majority of groups are all volunteer. Of the 136 environmental groups I interviewed, 70 percent (ninety-five) were all volunteer and the rest of the groups had paid employees. Only a handful of these environmental groups had more than five employees. Most of the volunteer group members have full-time jobs or other priorities and do not have time or resources to dedicate to an issue that a paid-professional group may have. The resources accessible to environmental groups with a paid staff are different from those that are all-volunteer. This turns out to be important when examining the information exchange structure.

Mobilization of Information Resources

Changing policy, influencing industry, or informing citizens are what drive action for most environmental groups. Information that is central to environmental groups can be classified primarily as local knowledge, scientific/technical, government/legal/regulatory, and activities/events. In order to understand what information is central to these groups, one has to know the activities of the groups. Therefore, I used a modification of Jamison's (2001) categorization of environmentalists and divided the groups into three categories - community, professional, and personal - based around the primary activities of the environmental groups. Community environmentalists oppose threats to local environmental quality, create environmental awareness, or "develop alternative initiatives for environmental improvements in their

communities" (Jamison 2001, p. 152). Professional environmental groups have paid staff and are "employed to make, or produce, environmental knowledge . . . be it legal, scientific, administrative, commercial, educational, or disruptive" (Jamison 2001, p. 160). Personal environmental groups include recreation and hobby-type interest groups, which people are likely to join because such associations are personally rewarding.

These three categories of environmental groups are not mutually exclusive. Instead certain groups may overlap into another category as shown in figure 2.1. For example, a group may have begun as a community grassroots campaign to oppose an issue such as a dam and now that the issue is resolved, they are primarily a personal recreation group of canoeing and kayaking. So their primary activities would fall under the personal categories, but if an environmental issue were to come up again, their information needs would fall under the community grassroots group. Another example would be a group with a paid-professional staff, whose focus is very much as a community, grassroots group but just happens to have a person receiving a salary. A summary of the personal, professional, and community groups is provided in table 2.2.

Figure 2.1 Three overlapping categories of environmental groups based on activity

Table 2.2 Summary of the three types of environmental groups

Personal	Focus is on recreation, hobbies, and personal interest issues with an environmental aspect
Professional	Have a paid staff and work on a variety of issues including agriculture, education, forestry, general, land trusts, recreation, water, plants, and wildlife
Community	Information providers - Clearinghouse for information Monitors - Project oriented Opposition - Oppose a particular issue

Personal

About 15 percent of the environmental groups I interviewed can be considered personal groups, meaning they focus on recreation, hobbies, or personal interest issues with an environmental aspect to them. This includes groups such as canoeing, kayaking, hiking, caving, and wildflower groups. Some of the activities of these groups are listed below. Each bullet represents the activities of a different group.

- Speakers at monthly meetings. Remove invasive plants. Hike. See people's gardens.

- Maintain roadsides in a natural condition. Have wildflower outings. Provide glade tours. Develop trails.
- Repair, maintain, build trails.
- Paddling expeditions. Sponsor races. Perform river cleanups. Take people to see Cahaba lilies.
- Weekend paddling trips and hikes.

There are two main types of information that are central to these groups. First, the groups possess local knowledge. Members are familiar with trails they hike, rivers they canoe, and birds and wildflowers they observe. Because they are out in nature, they can see changes in the environment and often participate in or host cleanup activities. These groups share their local knowledge and make others aware of the outdoors and environmental issues through river cleanups, youth education days, and other hosted events. The second type of information central to these groups concerns the activities and upcoming events. They let other members, and often the general public, know about when they are having upcoming activities or will highlight past events. These groups rarely need scientific/technical information or government/regulatory information. However, if they become involved in a policy issue their information can become quite useful.

Professional Groups

Professional groups are defined as groups with paid staff members. This can range from one paid, part-time employee to several paid professionals. Less than one-

third of the environmental groups I interviewed fit in this category. Professional groups have a variety of purposes including agriculture, education, forestry, general issues, land trusts, recreation, water, and wildlife.

Activities of the environmental groups reflect the type of information that is central in these groups and what drives their action. To illustrate their range and type, listed below is a description of some of the activities of these professional groups.

- Provide funding and work with community groups through strategic planning process. Have urban agriculture projects. Work on food security issues. Conduct farmer-to-farmer training.
- Have comprehensive environmental program. Perform water monitoring. Conduct workshops, seminars, and community awareness meetings. Work with schools to educate children.
- Have a habitat, tree planting, and living reef project. Perform water monitoring. Restore five acres. Put up osprey platforms on different rivers. Have youth programs, scholarships, hazardous waste days. Work on management plan in the local bay.
- Provide resources for people who want to control signs and billboards. Make presentations to Chambers of Commerce. Resource for people about sign control.
- Have a clean air program, clean water network, downtown recycling center, enforcement campaigns, and watchdog program. Work on sustainable land issues, private and public forest.
- Provide youth education and public speaking. Comment on public land issues.

- Provide continuing education courses, sponsor events. Have projects with the government. Constantly work with land owners.
- Provide onsite assessment for businesses and industry to help reduce waste. Assist companies to be less polluting and produce less waste. Provide training and conduct seminars on waste, energy, and pollution.
- Have a bird education program. Care for injured wildlife. Have a wildlife hotline.

The main type of information that is central to these groups is scientific/technical information, government/legal/regulatory information, and activities/events. Professional groups often have paid staff trained in a particular area. They are able to share information and experience with others through workshops, conferences, and meetings. These groups are in frequent contact with government agencies concerning issues. Some also have lawyers on staff that can provide them with information. Information concerning activities and events is central to the professional groups. Making citizens or other groups aware of upcoming conferences or workshops is key. They also have to inform their supporters about past and future activities to try to solicit financial support.

Community

The community group is a diverse group consisting of more than half of the environmental groups. In order to portray the type of information that is central to the community groups, I divide them into three categories - information providers, monitors, and opposition. Many environmental groups are complex. Their interests and activities

do not fit neatly into one category but may overlap with the other categories.

First, are community groups that are "information providers." Only a handful of the community groups falls into this category, but nonetheless they have an important function. These groups are more of a clearinghouse for information. As one group said, they are trying to connect people and make networks broader and stronger. Listed below are some activities of information providers:

- Help protect rural Alabama's quality of life. Share information with groups with common problems. Help other groups get started.
- Work with private landowners to create desired habitat for ducks. Install Wood Duck boxes and partner with the Tennessee Valley Authority. Reintroduced the Bald Cypress to the Tennessee River Valley.
- Sell birdhouses. Conduct educational programs. Have public speaking engagements. Trying to make landfills more bird friendly.
- Give information. Network.

These groups have local knowledge of what is going on in the area and people come to them with information or questions. These groups are also familiar with the scientific and technical aspects of environmental issues. They help other environmental groups or neighborhood groups that are opposing an issue by giving them information or putting them contact with those who can help. One group explained that there are time pressures with environmental issues and they provide groups the information they need to get a jump on the learning curve. The information providers will also help filter information. One group explained they read technical reports and become familiar with

them so they can filter out what a lay person wants to know about a particular issue. This group mentioned it is important to inform people because if people are confused, they are not going to go to meetings, such as city council meetings, and speak up.

These information providers also have knowledge on the government/legal/regulatory issues. For example, they might be knowledgeable about how city councils and county commissions work. They will assist other groups in presenting in front of these local government bodies. Another group monitors state regulations and upcoming initiatives and publishes an online newsletter to inform other groups. This same group receives information about the activities and events that are going on in the state and publishes this information in the online newsletter. Thus, local knowledge, scientific/technical, government/legal/regulations, and activities/events are the main types of information or knowledge central to the information providers.

Opposition groups are the second type of community group. Their primary activity is to oppose a particular issue. Although 29 percent of environmental groups initially began as an opposition group, most groups that are still in existence changed their mission once the issue was resolved. These groups become more of a monitoring and project-type group, which is discussed in the next category. Opposition groups are primarily comprised of people that are local and may not have experience in environmental issues. Therefore, they need scientific/technical information as well as government/legal/regulatory information. However, what these groups often possess is detailed local knowledge (e.g. concerning the presence of an ephemeral stream or wetlands on the site of a proposed landfill). Members of these groups live in the area.

When these groups need information, they often turn to other environmental groups for advice and expertise.

Monitors are the third category of community groups and they are often project-oriented. Some activities of these groups include:

- Loosely monitors activities at the landfill.
- Watch the park. Maintain ten miles of trail system. Provide educational tours. Remove exotic species.
- Attend city and county meetings. Address issues that affect the city. Keep files on all types of issues in the city, county, and state.
- Perform water monitoring. Have an annual cleanup.
- Perform water monitoring. Comment on permits.

They also have a tremendous amount of local knowledge. They are the ones that live on or near the rivers and lakes they regularly monitor. Over time, they become knowledgeable of scientific/technical and government/legal/regulatory information.

Without information exchange, environmental groups in Alabama would not be able to succeed. Listed below are some of the activities environmental groups highlighted. These highlights reflect what is important to the group, what drove their action, and what they were successful with. Some of the highlights include: let others know what is going on; receive approval to speak at Environmental Management Commission meetings; create a wilderness designation area and a recycling center; defeat the "Hog Bill" (concerning Concentrated Animal Feeding Operations) five years in a row; start a recycling program; network with groups that do not normally work together; create

a safer place for the landfill by making them put in two liners; remove tires, automobiles, freezers, washing machines and other debris from the mountain; remove debris from the shoreline; stop the state from putting in a landfill; foster awareness about what is going on in their backyard; make the city aware; and make birding more visible in north Alabama.

Method of Information Exchange

Many groups, whether community, professional, or personal, have become experts in their subject area. Local citizens will contact these groups when they have questions. Citizens will also contact environmental groups if a new environmental concern arises. Since almost 70 percent (116) of the environmental groups have websites, people from all over the world can, and do, contact these groups for information.

When environmental groups give information to others they often tone the message differently for agencies, industries, and environmental groups. One group stated that you have to get your message across in a way that will be accepted by that person. Another group recognized that to talk to some groups you have to go in a suit or they will never hear you.

The primary methods used to give information, in order of importance, are newsletters, email, websites, meetings, speakers, phone calls, internet, conferences and workshops. However, the environmental groups with paid staff use conferences and workshops as a means to give information more often than do the all-volunteer groups. The all-volunteer groups tend to give information through their regular member meetings.

The primary way environmental groups received information was through member networks. For example, one group said their members are involved with other groups and, therefore, have a lot of their "feelers" out in other groups. Another group explained that they do not subscribe to certain magazines, but their members do and will alert them if an issue arises. A different group stated they are all sitting on so many organizations and committees that they do a lot of "cross-pollinating." Email, internet, meetings, and phone calls are also means by which environmental groups receive information.

The environmental groups mentioned pros and cons to using particular methods for exchanging information. Printing newsletters is very costly, both financially and in the time taken to produce. Those groups that produced newsletters often emailed them or posted them on the group's website. Email is used heavily because information is often time-sensitive. Yet, not everyone has email and those that do often are inundated with emails. Websites are a way to get information out cheaply but it takes time and skill to get a website online.

Conclusion

This research examines information exchange for all of the various environmental groups across Alabama. Most groups focus on multiple projects such as water monitoring, environmental education, and participation in local government. These groups need a broad spectrum of information to carry out their activities.

When focusing on a policy issue, both scientific/technical and government/regulatory information becomes critical. Professional groups tend to posses this technical type of information whereas community and personal groups have a wealth of local knowledge. The local knowledge of the personal and community groups is important but usually is not of central importance to professional groups until an issue arises. Even so, the community and personal groups' local knowledge enhance the ability and effectiveness of professional groups. However, as groups are in existence longer, the professional groups become more aware of local knowledge and the community and personal groups can become recognized as knowledgeable experts in the technical areas.

CHAPTER 3

RESOURCE MOBILIZATION AND THE NETWORK STRUCTURE OF INFORMATION EXCHANGE AMONG ENVIRONMENTAL GROUPS

Local environmental groups are often made up of volunteers with no background in environmental issues and operate with very limited funding, time, and experience. Gaining access to reliable information is key to establishing credibility with citizens, politicians, environmental regulators, and the media. Effective environmental groups often become acknowledged experts and, to the extent that this is true, become effective advocates. To become and remain effective, environmental groups need to obtain information from a variety of sources and share that information with others. In this paper, I consider information to be a key resource and use the ideologically structured action framework to examine how organizations in the environmental movement obtain and exchange information.

Dalton's (1994) ideologically structured action (ISA) framework helps to explain why groups exchange information with particular groups. Dalton's framework fills in the ideology gap of the resource mobilization theory. Dalton (1994) agrees with the resource mobilization theory that organizations need certain resources to survive, but argues that organizations usually have several options available to them to address their needs. Dalton (1994, p. 11) states "the ideology and identity of a group determine the specific

options available to a group and its choice between the available options." Dalton (1994, p. 12) further notes that "the ideology of a group . . . provides a framework for organizing and interpreting the political world; it defines core values and peripheral concerns." Dalton refers to Snow and Benford's (1992) work on diagnostic framing. Snow and Benford (1992, p. 137) suggest that a frame "refers to an interpretive schemata that simplifies and condenses the 'world out there' by selectively punctuating and encoding objects, situations, events, experiences, and sequences of actions within one's present or past environment."

Environmental groups' ideology or identity affects with whom they will work and how they exchange information. Rucht (2004, p. 197) suggests that environmental groups are not a unified movement with a unified opponent but are "internally differentiated actors operating within complex social settings." Environmental groups create identities that are reflected in their name, members, and type of action they support (Kitchell et al. 2000). Even if groups have similar goals they may use different methods to achieve these goals (Carmin and Balser 2002). The literature categorizes environmental groups and their tactics in a variety of ways. Brulle (1996) examines forty-four major environmental groups in the United States and categorizes them into six environmental discourses - conservationism, preservationism, ecocentrism, political ecology, deep ecology, and ecofeminism. Diani's (1995) study of Italian environmental networks divided groups into conservation and political ecology. Similarly, Dalton's (1994) work on Western European environmental groups, classified groups as conservation and ecology. However, Kempton et al.'s (2001) research on local

environmental groups found that most groups do not fit the categories highlighted in the literature. I found this to be the case with Alabama's environmental groups. Almost 70 percent of the environmental groups in Alabama are all-volunteer. The majority (75 percent) of environmental groups have a local focus, meaning a neighborhood level to multi-county level. Environmental groups in Alabama include people who hike the trails, canoe the rivers, watch the birds, and drink the water. They are a group of diverse people standing up for what they think is right. They do not classify their organization as academics might. Instead, the distinctions they recognize are whether groups are political, litigious, or neutral. These categories are discussed in detail later.

This research adds to the ideologically structured action framework by exploring information exchange at a scale not often explored in the environmental movement literature. This research focuses on information as a resource because information is critical in the environmental movement. Jasanoff (1997, p. 581) suggests that "Environmental action often demands the transfer of knowledge, skills, technology or other material resources from places where they are readily available to places where they are in relatively short supply." Carmin (1999) explains that when a local issue arises, residents concerned about the issue take action even though they may have limited experience in politics or environmental advocacy. Despite the importance of information, Pierce et al. (1992) suggests that little work has been done to show how a variety of information is exchanged in the environmental movement.

This research also examines information exchange at the state and local level taking into account all environmental organizations in Alabama - agriculture, education,

forestry, general, land trust, plants, recreation, water, wildlife, and other - even if they may have different perspectives on the environmental movement. Much of the research on environmental groups is at the national or international level (e.g., Diani 1995; Dalton 1994; Keck and Sikkink 1999; Brulle 2000; Rohrschneider and Dalton 2002). Most research at the local or state level, with a few exceptions (Andrews and Edwards 2005; Kempton et al. 2001; Savage, Isham, and Klyza 2005), examines local groups in a particular locale or working on a certain issue. Research suggests local grassroots environmental groups display some differences from the national professional groups. Marshall (2002, p. 5) suggests that "Since the power of grassroots groups largely lies in human energy, not financial clout, the most successful environmentalists worked hard to forge connections with other organizations, share strategies, and form alliances in their struggles. In doing so, they built a network of knowledgeable grassroots organizations and individuals . . . ." Brulle (2000, p. 82) explains that grassroots organization members are usually "recruited through personal contact and lifeworld communication." Neighbors, friends, relatives, and acquaintances are more likely to be involved in similar groups at the local level.

The overall purpose of this research is to use ideologically structured action framework to explain how environmental groups exchange information. The three main objectives are to 1) use ideologically structured action framework to explain why groups choose to work with other particular groups; 2) use social network analysis to show the social structure of environmentalism with respect to information exchange; and 3) discuss other opportunities and constraints that may affect information exchange. Specific details

about the environmental group attributes and the types and methods of information exchanged are discussed in the previous chapter.

This research takes a structural approach to observe the pattern of information exchange in the environmental movement in Alabama. Social network analysis is used to examine a collection of actors, either individuals or organizations, and the ties between them (Wasserman and Faust 1994). Social network analysis allows researchers to understand relationships, not just attributes, of an individual or organization. Identifying networks helps provide a bridge between structure (institutions) and agency (individuals) (Passy 2003; Halperin 1994). In order to understand the importance of the nonprofit sector of which environmental movements are a part, it is critical to understand the relationship of these actors and other organizations (Brock and Banting 2001).

Focusing on the patterns of relationships reveals the social structure of a particular environment (Haythornthwaite 1996). First, this research examines the overall patterns of network structure based on geographic location and category. Second, by looking at the ties or relationships between actors we can understand which environmental groups play central roles in information exchange. Centrality is measured by the concept of degree, or number of ties an actor has (Diani 1995). The more central an actor, the higher the degree of interaction with others in the network (Tindall 2002). Diani (1995, p. 108), in his work on the Italian environmental movement network, explains that:

> "Central actors will obviously be in a better position than peripheral ones to act as co-ordinators between the different segments of the network. They will be able to pool and distribute mobilization resources, to spread information, to promote

mass campaigns more quickly and effectively than more isolated groups and organizations."

Social network analysis presents a physical picture of the environmental group's network of information exchange.

There are other opportunities and constraints that may affect the mobilization of the information resource besides the identity or ideology of a group. Affiliation with another group, geographic location, trust, and time are some of the opportunities and constraints that may impact information exchange.

Methods

This research examines how information is exchanged among environmental groups in Alabama. Alabama is a very diverse state with 70 percent forest land (Stein 2002) and 77,000 miles of streams that span from the mountains in north Alabama to the Gulf of Mexico in the south. Alabama ranks 5th in the United States in terms of species diversity (Stein 2002) and 49th in environmental protection (Kromm, Ernst, and Battica 2000).

There are 168 environmental groups including agriculture, education, forestry, general, land trusts, plants, recreation, water, wildlife and other groups (Appendix A). I follow Kempton et al. (2001, p. 561) in defining environmental groups as

"a self-named, voluntary collection of people (or member organizations) who agree on some part of a view of the ethical or appropriate relationship between humans and the world around them, who communicate with each other about this

topic, and who perform action in a particular venue in order to advance their view of it."

More specifically, I follow Andrews and Edwards (2005, p. 216-217) criteria for environmental groups: 1) all groups have an Alabama mailing address; 2) subunits are separate organizations; 3) groups make public interest claims (not industry groups); 4) no high school or college groups; and 5) excludes state agencies.

Several sources were used to compile the list of Alabama environmental groups used in this research. First, a list of environmental groups was compiled from the Alabama Grassroots Clearinghouse (Bailey, Dubois, and Robinson 2005). Since the mid-1990s, the Alabama Grassroots Clearinghouse has provided a regularly updated database of Alabama environmental organizations (Bailey, Dubois, and Robinson 2005). Through this website, over the past seven years, I maintained frequent contact with environmental groups and citizens, staying abreast to changes in numbers and type of groups and environmental concerns across Alabama. This work has afforded me a uniquely rich starting point for this research. Most efforts to study environmental groups are challenging since many environmental groups are very informal, do not have a 501(c)(3) tax-exempt status, and are short-lived (Carmin 1999). This complicates efforts to understand, in any systematic fashion, the range and number of organizations formed out of concern for the environment. In Alabama, data on environmental organizations has been collected over a ten-year period. Second, an internet search of newspaper articles, newsletters, websites, and other Alabama directories, like the Alabama Rivers Alliance Directory, was used to cross-check active groups, as well as to add new groups to the list.

Interviews for this research were conducted from September 2005 through January 2006. Every attempt was made to contact all Alabama environmental groups. Each environmental group was contacted by telephone or email at least three times. Once the interviews were conducted, it became evident that some groups did not fit the criteria noted above and these groups were removed from the list. Of the 168 environmental groups which fit my criteria and were thought to be active in Alabama, 136 groups were interviewed. The remaining thirty-two did not respond to phone or email messages.

Seventy-eight face-to-face interviews and fifty-eight phone interviews were conducted. Interviews were conducted with a leader or leaders of environmental groups such as the executive director, president, or other person familiar with the regular activities of the group. Questions were directed to the organization and not the individual, although often it was difficult to separate an individual from the group.

Interviews were not tape-recorded but detailed notes were taken during the interviews and written up immediately afterwards. Therefore, the interview discussions in this paper are paraphrased comments from the respondents and not direct quotes. Interview questions were divided into two parts (Appendix B). The first set of questions pertained to attributes of the environmental group. The second set of questions related to information exchange and whether information was exchanged with other environmental groups, government agencies, industry, media, etc. Simmons' (1998) taxonomic approach to classifying nongovernmental organizations was the basis for the attribute questions. Simmons (1998) suggests that it is useful to understand what nongovernmental organizations do (goals, activities, area of operation), who members are

(types of members, geographic range of members, and personnel type), and where funding comes from (dues, grants, foundations, etc.).

The social network analysis software, Ucinet 6.109, was used to help describe how environmental groups exchange information (Borgatti, Everett, and Freeman 2002). Social network analysis is not a form of statistical calculation, but uses mathematics and graphics to depict networks systematically (Hanneman and Riddle 2005). For this research, Ucinet was used to chart the overall structure of information exchange by focusing on the number of exchanges environmental groups had. Ucinet's Freemen Degree calculation was used to calculate the number of connections or ties a group has, referred to in this paper as degree.

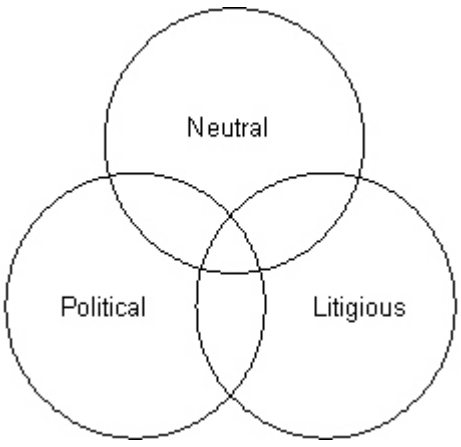
Results and Discussion

Outlined below are the results of the three main objectives. First, ideologically structured action framework helps explain why groups exchange information with particular groups. Second, social network analysis shows the network structure with whom environmental groups exchange information, focusing on geographic and main categories. The central organizations in the information exchange network are then detailed. Third, is a discussion of opportunities and constraints that also may affect information exchange.

Ideologically Structured Action

Environmental groups often frame themselves to attract membership, funding, and supporters (Snow et al. 1986). Dalton (1994) explains that organizations have several options available to meet their needs. How groups frame themselves, or their ideology and identity, affects what groups will work together. The distinctions Alabama environmental groups recognize are whether groups are political, litigious, or neutral. These three categories are not mutually exclusive but, instead, overlap as shown in figure 3.1. A group's ideology may be fluid and fall into more than one category or a different ideology depending on the issue. An environmental group's perception of another group's ideology is also important in determining how groups interact. Thus it is difficult to place an identity or ideological label on groups since ideology is more of a relative term for the groups.

Figure 3.1 Three overlapping categories of environmental group ideology



Environmental group's identities are perceived by others to be based along the lines of litigators, political, or neutral. For example, if two groups are working on water issues, one may be described as not litigious and the other litigious. Therefore, if you want to sue, you would go to the litigious group for assistance. One group explained they are not afraid to litigate and even have a lawyer on retainer. Another group stated they are aggressive and litigiously work to protect the water. They further explained some groups want to be litigious and some do not.

For the most part, groups describe themselves as neutral and will describe others as being political. The perception of the political groups can best be described through the eyes of the neutral groups. Here is how some groups describe their attitudes about political groups:

- Because we are volunteer, we are not advocacy or political. We don't work with other groups working on that type of issue.
- We have been very successful in reaching the private sector and industry. We don't get involved in political action.
- People think we are political. We wish people would open up. We are not trying to put people out of business.
- We are not political and we will pass information on to our members but it is up to the individual if they want to be a part of it or not. But our group officially does not take a stand.
- Our members are not interested in political purposes and don't want to become involved in groups that are.

- We stay away from the fanatical activist groups . . . We want to stay in the middle of the road.

Leaders of many of the groups I interviewed described themselves as neutral. For instance, one group explained that they steer clear of controversial issues and will talk to another environmental group to see if an area is controversial. Another group leader explained:

> We are not issue oriented. Some groups sue each other and they just want people to play nice in the sand box. We don't fight quarries or local issues. We want people to come to the table and not feel threatened. We have to stay totally neutral, which is a challenge.

Some groups have a negative perception of the term environmental and do not want to be associated with that term. These groups want to be perceived as neutral. Here are paraphrased quotes from some groups I interviewed:

- We are a conservation group and not an environmental group.
- Environmentalism is a dirty word in Alabama. We don't use that term. We use the term 'health'.
- My main interest is preservation. I think of myself as a conservationist and not an environmentalist because people need to work together and instead people go to the extreme.
- There is a negative connotation with environmental groups.
- We are not really an environmental group.
- We are more focused on conservation and *use* of the resource.

So even though I have categorized these groups as environmental, many of them do not identify themselves as environmental.

Funding Identity

Another part of a group's identity that was important to many environmental groups is how organizations are funded. Carmin and Balser (2002) explain that previous research has shown environmental groups attract certain types of funding based on their ideology and will use tactics that are acceptable to their supporters. Dalton's (1994) research showed that support from businesses can raise questions about a group's credibility. Smith (2003, p. 39) said the "the opportunity for funding means that many nonprofit agencies "adjust" their behavior including their organization goals and mission, depending on the priorities of the government funding agencies." In efforts to maintain a group's identity, environmental groups in Alabama were keenly aware of from whom they receive funding as well as where other environmental groups receive their funding. Groups were concerned that the funding they receive match the ideology and identity of their group. Here are paraphrased statements from groups concerning funding:

- We are picky about where we get money from.
- We have no corporate support.
- It's important who donates money. Alabama Power and Vulcan can apply pressure to groups once they have donated to them.
- A couple of groups are masquerading as environmental groups. You have to know where the funding is coming from.

- Some groups consider themselves environmental groups, but they get their resources from major polluters . . . We don't want to get too cozy with the big polluters. We are not as willing to compromise. There are issues we won't compromise on, others may.
- A lot of facades look 'green'. But you have to see who is behind it . . . You have to watch who to get involved with. You don't want to feed the information to the wrong people.

How environmental groups are funded can prevent environmental groups from working together or exchanging information. Environmental groups are particular about with whom they work. Many are cognizant of who funds particular organizations and will not work with groups funded by the "big polluters."

Community Identity

Another way that framing or identity of a group may affect information exchange is the fact that environmental groups often exist in the same community where they are opposed to a particular issue. This may affect their job or relations with their neighbor and, in turn, can affect where they get information. Groups that are political or litigious can face serious problems in their community and some groups struggle to stay neutral on issues. Here are paraphrased statements of what some groups had to say about the challenges they face being part of an environmental group:

- We have to keep a low profile because the only insurance they can get is through [the group we are opposing] . . . You may cut yourself off from things.

- We didn't want to get on TV. We want to play it cool. We didn't want to rip up the community.
- People wanted to be a part of their group, but were told by their employers or someone similar, not to go to the meetings.
- If you don't like the polluting, sometimes you can't do anything because that's where you make your livelihood.
- He has to coexist with the city for his job.

Dynamic Identity

It is also important to understand environmental groups are dynamic and can change their ideological stance as well as their main focus. Groups can change their identity and how they frame an issue, who they work with, and how they are funded. Many environmental groups I interviewed explained how their mission has changed since they began. Some groups went from being confrontational to taking a more proactive, less confrontational role. One group explained they are less into the confrontational stage with the city and are now working together. Another group explained that "early on they were a more radical group. They pissed off a lot of people." This group realized they could be more effective taking a less confrontational stance.

Other groups began with a single focus and realized the issue was a lot bigger than just the one industry they formed to oppose. For instance, a group explained they did not disband after their land development issue was resolved because they felt the developers would ask for the land again. One group explained that their "mission has widened to

look at people too. They are looking at threats to drinking water and how both people and fish need clean water to drink. They bring together people and aquatic life." Another group stated they "started as a NIMBY [not in my backyard] and realized that the issue was bigger than one chemical plant . . . They changed their name because it affects the entire bay. Their mission statement was also broadened to be statewide because upstream decisions affect them." One recreation group changed their mission once the dam issue was settled. They stated their group was "formed to promote and preserve the area for water recreation and now they work on promoting canoeing and kayaking." Another group organized to oppose a particular pollution issue and now they have changed and are doing environmental education, working with the universities, public awareness, etc. Environmental groups can change their primary focus, which often means having a different ideological stance on different issues.

Network Structure

In this section I describe the network structure of information exchange for environmental groups in Alabama focusing on how information exchange links one group to another. Environmental groups were asked to whom they give information and from whom they receive information. Respondents tended to discuss the groups they worked with and did not always specify to or from whom they gave and received information. Therefore, in order to understand overall patterns of information exchange, the environmental groups responses to give, receive, and work with were compiled into one information exchange category. This exchange category is the focus of the discussion

since it provides a richer look at how environmental groups exchange information.

Patterns of Social Structure

This section examines the patterns of social structure of environmentalism in Alabama with respect to information exchange. The two main patterns discussed are geographic location and categories of interest.

To understand geographic patterns of information exchange, environmental groups were categorized into four geographic areas of Alabama - north, central, southeast, and southwest. In Alabama, the geographic areas also correspond to broad ecological areas. For example, north Alabama is mountainous, southwest Alabama is coastal, and southeast and central Alabama are rolling hills and plains. However, central Alabama contains Birmingham, which is the largest city in Alabama, and has a large concentration of environmental groups. Figure 3.2a shows how groups that have a local focus (neighborhood to multi-county) exchange information. (Appendix C provides a key code for the nodes in figures 3.2a - 3.3d). For figures 3.2a - 3.3d, the isolates, or groups with no connections to the other groups in that figure, were removed. The structure of information exchange among local groups shows that, in general, groups from the same region work together. When looking specifically at a city or county level, the connections are not as evident, but when zoomed out to a regional level, it becomes clear that groups working on local issues will work with other groups in their area. The regions are linked together by groups that share a common interest such as water or recreation. However, just because groups are in the same region, does not mean they will work together. A

group's ideology and identity prevents groups in the same area from working together.

Figure 3.2b shows the environmental groups that have a statewide focus. Groups with a statewide focus do not necessarily interact based on geographic lines. Instead, as shown in figure 3.2c, they tend to work more by issue or category. Again, ideological differences can prevent groups from exchanging information.

Figure 3.2a Structure of information exchange by region for environmental groups with a local focus (isolates removed)

Alabama regions

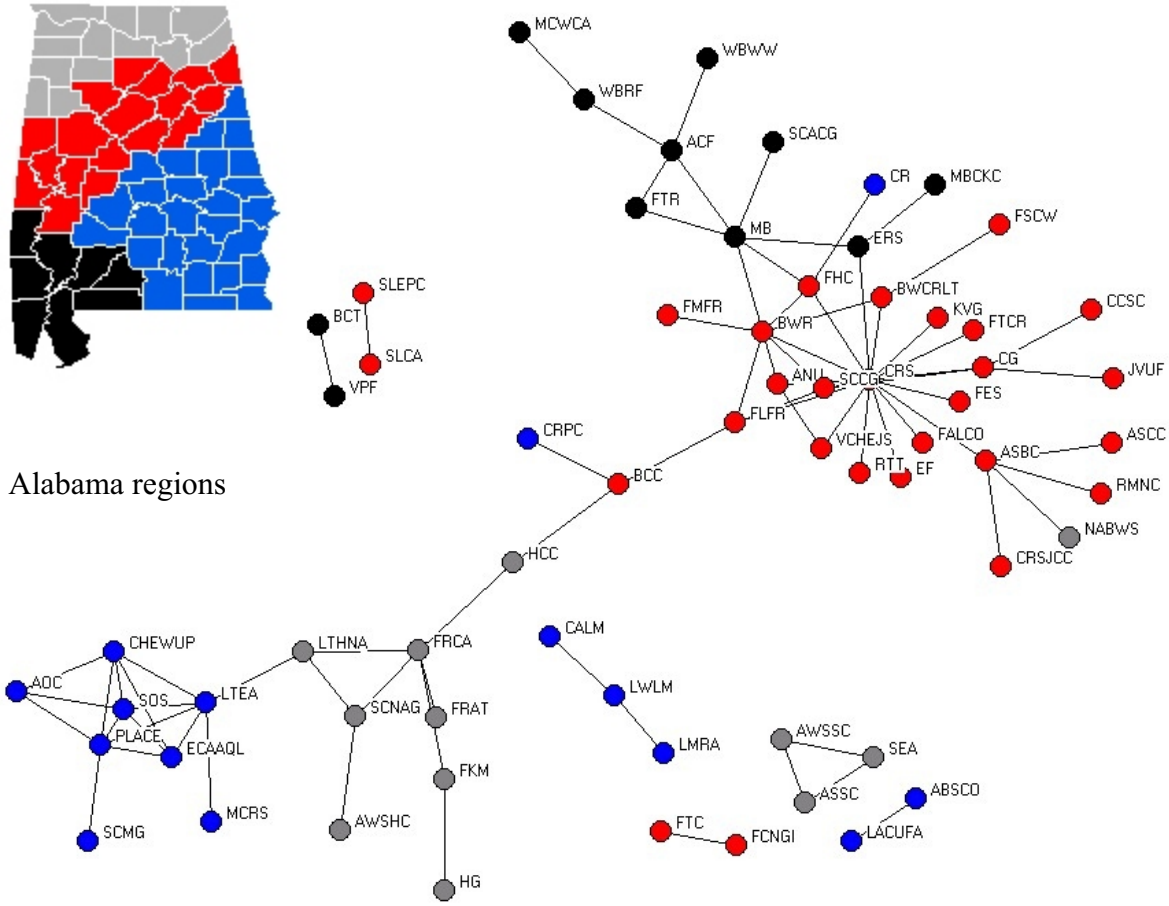


Figure 3.2b Structure of information exchange by region for environmental groups with a statewide focus (isolates removed)

Alabama regions

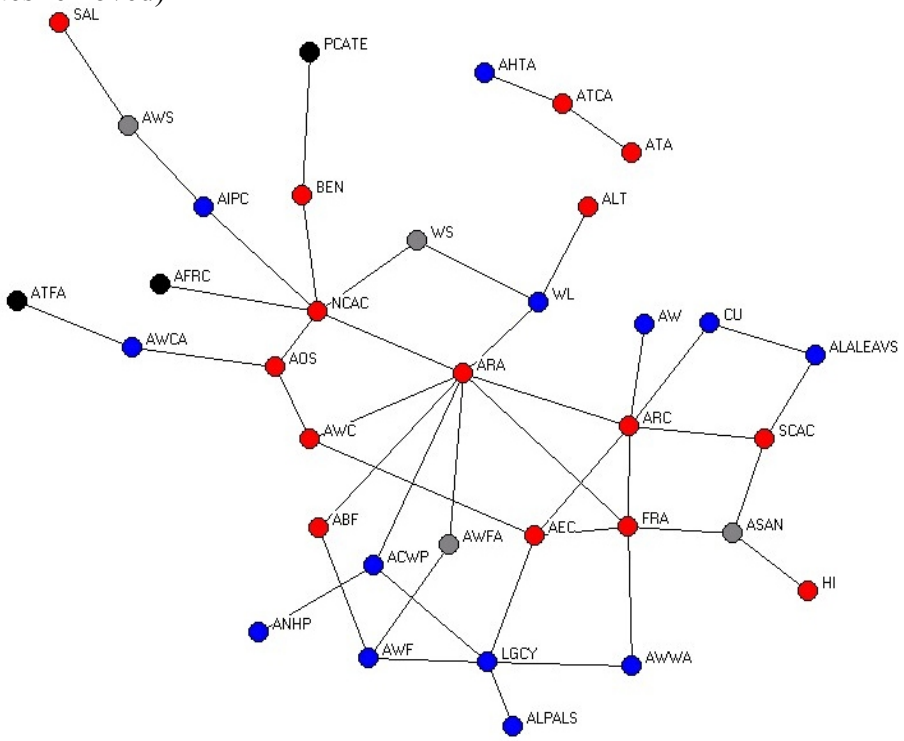
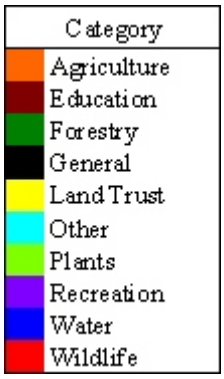
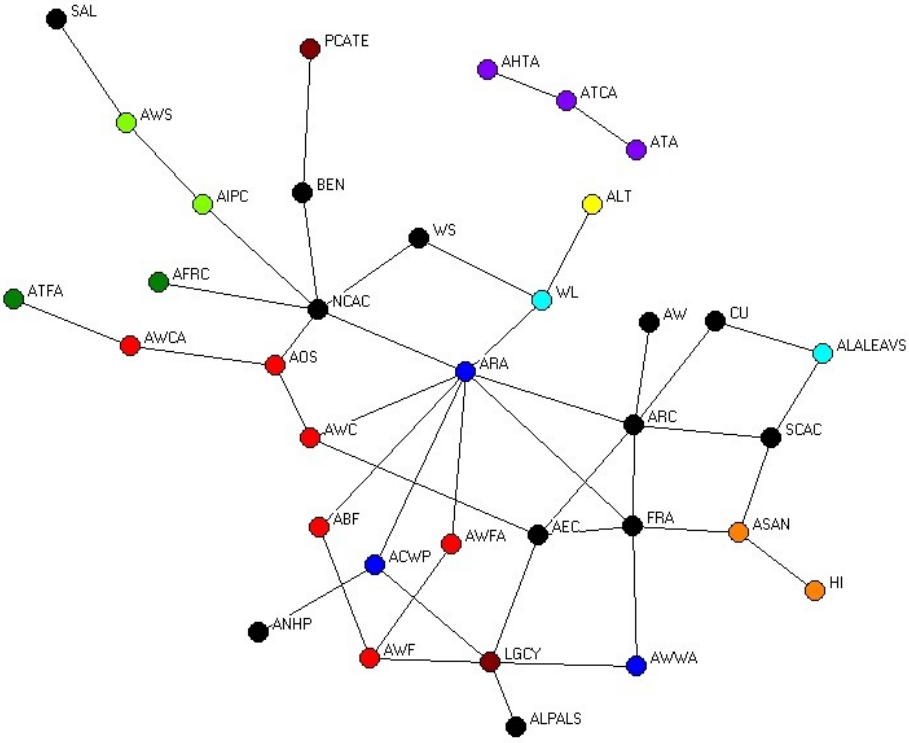


Figure 3.2c Structure of information exchange by category for environmental groups with a statewide focus (isolates removed)





It is also important to look at the patterns of information exchange based on the category or focus of the environmental groups. The environmental groups in Alabama were divided into ten categories - agriculture, education, forestry, general, land trust, plants, recreation, water, wildlife, and other (appendix A). Figure 3.3a shows the structure of information exchange for all of the environmental group categories except water and general. (Water groups were not included because the more than fifty water groups make it difficult to differentiate patterns). Environmental groups tend to exchange information with groups that work on the same topic. There are six different clusters of groups exchanging information. These clusters consist of groups working on similar topics. There are also splits in the same categories and the splits are based on ideological differences. When the general groups are added into the structure, the six clusters become linked and there is essentially one large network of information exchange (figure 3.3b). Looking only at the general category there is basically two clusters connected by a few key groups (figure 3.3d). The structure of information exchange is different for the water groups. Water groups have a hub and spoke structure, with one group being at the center (figure 3.3c).

Figure 3.3a Structure of information exchange for environmental groups by category, excluding the water and general category (isolates removed)

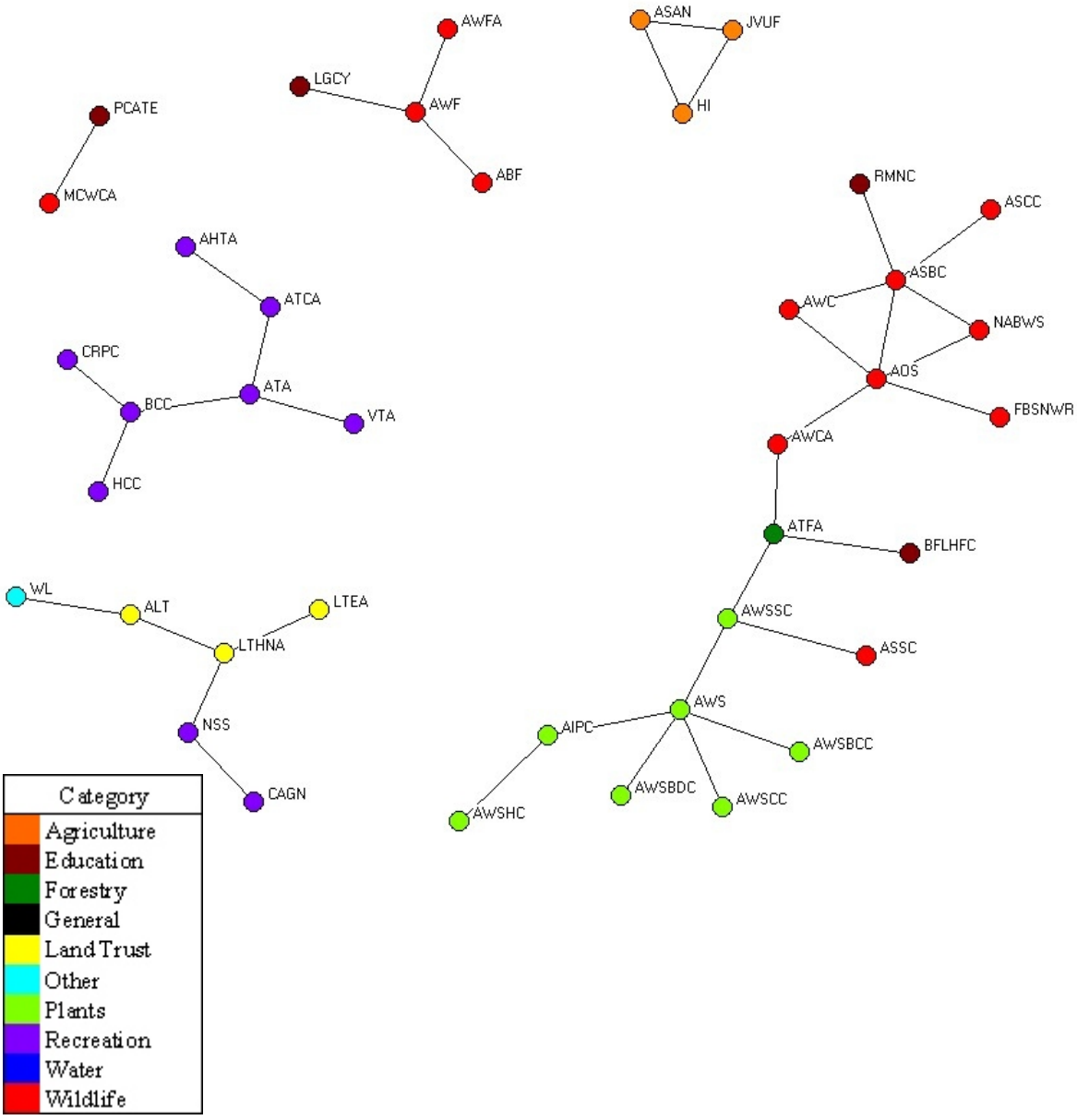


Figure 3.3b Structure of information exchange for environmental groups by category, excluding the water category (isolates removed)

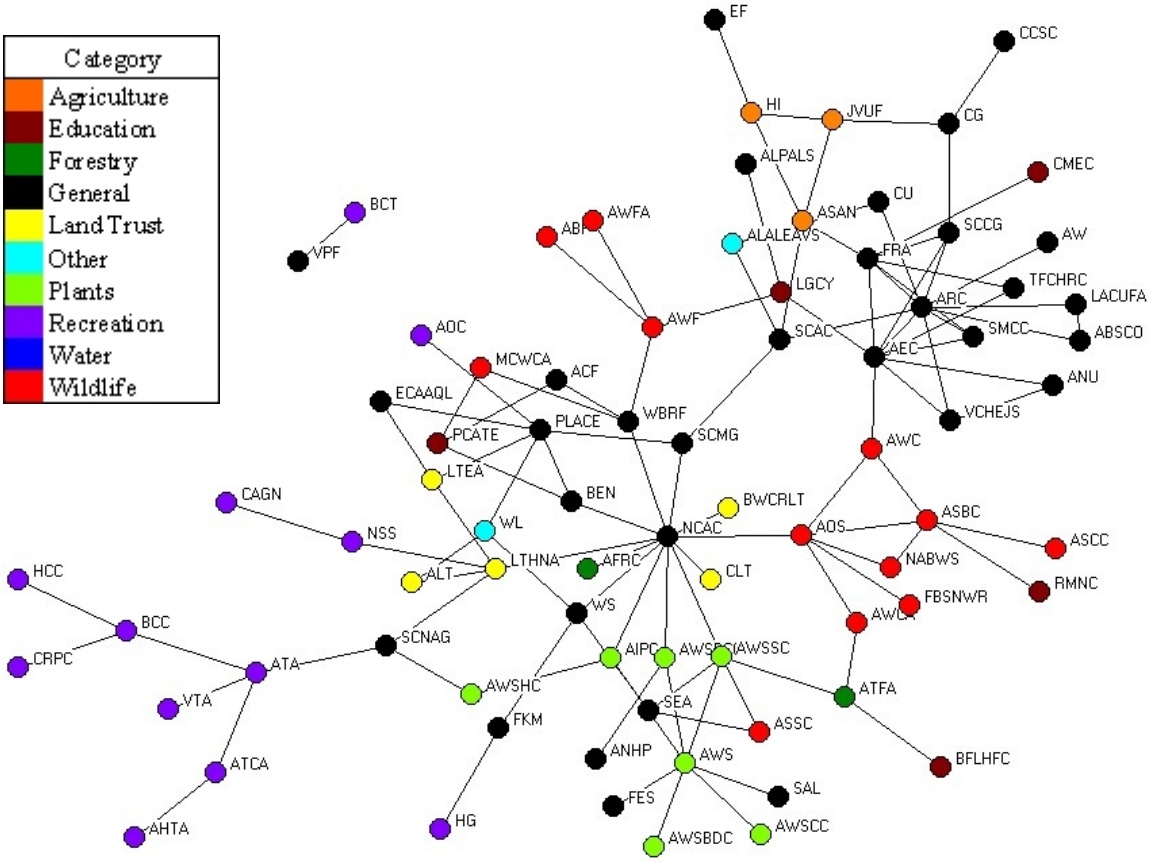


Figure 3.3c Structure of information exchange for environmental groups by the water category (isolates removed)

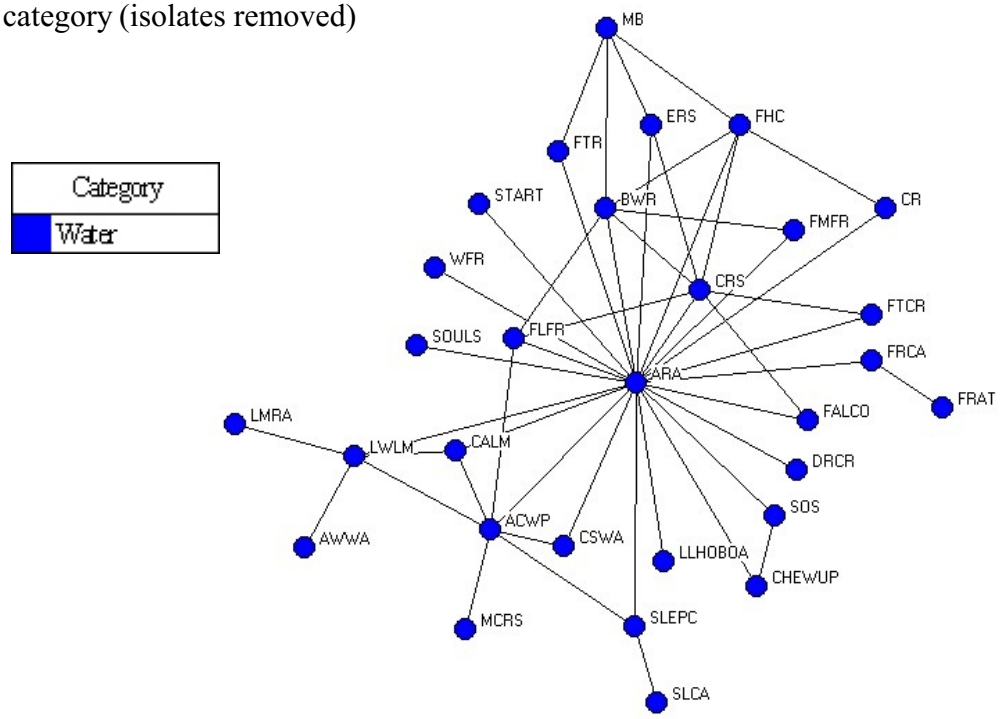
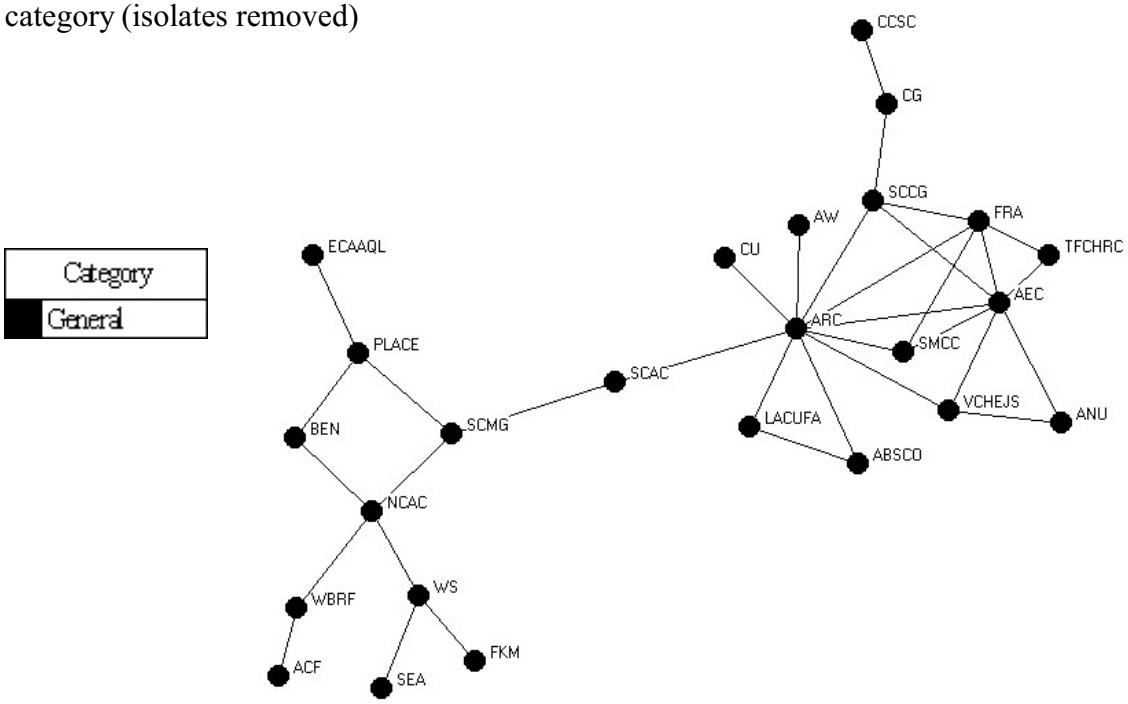


Figure 3.3d Structure of information exchange for environmental groups by the general category (isolates removed)



Centrality

Table 3.1 lists the top twenty actors with whom environmental groups in Alabama exchange information. Degree represents the number of actors a groups exchanges information. Environmental groups exchange information with Alabama Rivers Alliance, media, local governments, ADEM, Alabama Water Watch, and the ADEM Reform Coalition.

Table 3.1. Top 20 actors environmental groups exchange information

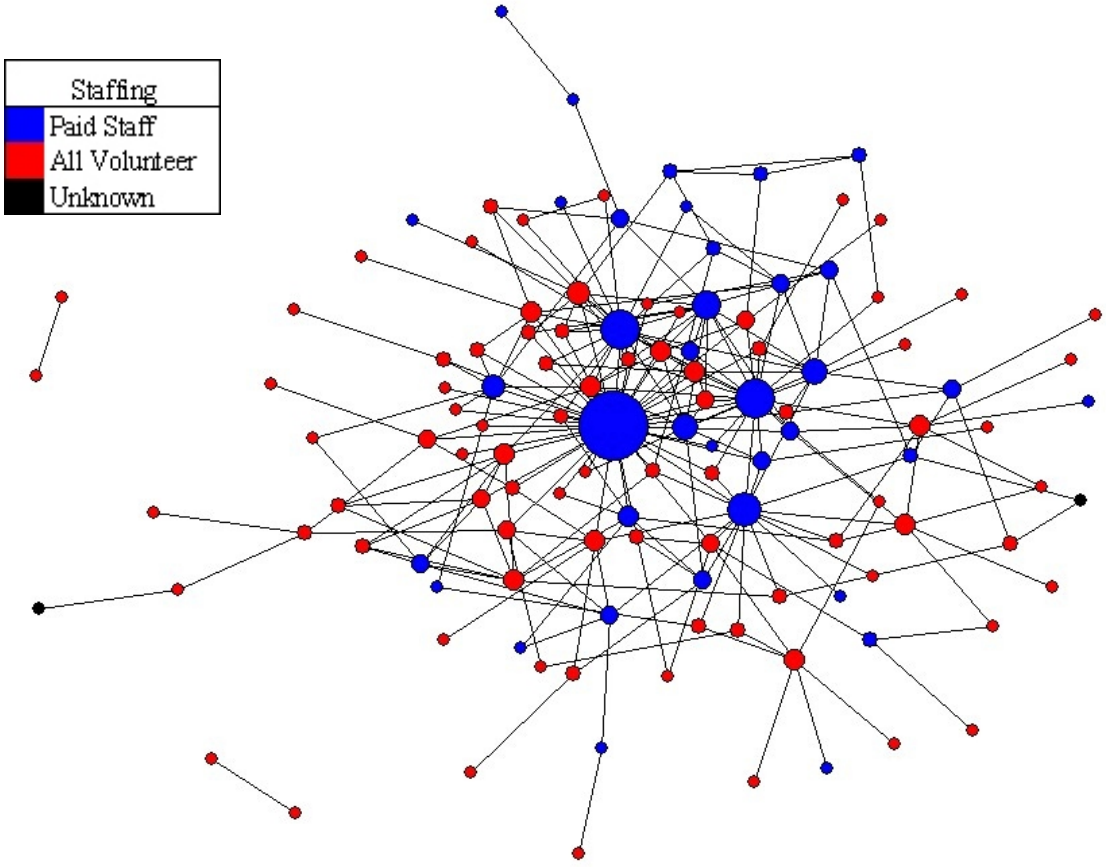
	Type	Degree
Alabama Rivers Alliance	Environmental Group	43
Media	Business	42
Local government	Government	35
Alabama Dept. of Env. Management	Government	25
Alabama Water Watch	Organization	23
ADEM Reform Coalition	Environmental Group	22
Sierra Club*	Environmental Group	20
Cahaba River Society	Environmental Group	16
Nature Conservancy - Alabama Chapter	Environmental Group	15
US Fish and Wildlife Service	Government	14
AL Dept of Conservation and Natural Resources	Government	13
Alabama Environmental Council	Environmental Group	12
Environmental Protection Agency	Government	12
Conservation or Environmental Group	Organization	11
Audubon Society*	Environmental Group	10
Auburn University	School	10
Alabama Power	Business	8
Alabama Clean Water Partnership	Environmental Group	8
Professionals	Individual	8
Forever Wild	Organization	8

*Term used generally by respondents and may include national, region, state, or local organization

I also examined the network structure of information exchange among only environmental groups. What is striking is the difference between environmental groups that have a paid staff and those that are all volunteer. As shown in figure 3.4, the network

structure resembles a hub and spoke with environmental groups that have a paid staff being in the center. Diani (1995) explains that these central actors are better able to spread information and mobilize resources. Diani (1995) found, in his work on the Italian environmental movement, that more structured organizations take leadership because their resources allow them to be more visible. Diani (2003, p. 108) states that "Larger resources render SMO [social movement organization] more visible, and more capable of working on several issues simultaneously." In Alabama, environmental groups with paid staff have time, funding, and knowledge to work with other groups and tend to be well-known so that when people need information they know to turn to these groups.

Figure 3.4 Information exchange among paid and volunteer environmental groups based on degree or number of ties (isolates removed)



Outlined below is a brief discussion of the top six actors with whom environmental groups exchange information. Obviously, environmental groups exchange information with their members but members were not included in this list. It is helpful, however, to provide a brief description of this information exchange since information sharing among members is so critical to these groups. These members can be dues-paying members or those that signed up to be on a mailing list. Either way, information about the group or an issue is disseminated to a number of people. Newsletters and regular meetings are some of the ways members stay informed. Usually, during the meetings, the groups will have a guest speaker present on a related issue. Staying in touch with members is also important in terms of receiving information. Members of environmental groups are often in more than one organization or in different professions and are likely to have their own information networks through work or other organizations. This diversity of information is critical for environmental groups to be able to mobilize resources.

Alabama Rivers Alliance

The most important actor with whom information is exchanged is the Alabama Rivers Alliance, which is a statewide organization that began in 1997 to focus on grassroots organizations and building alliances. The Alabama Rivers Alliance was formed by a member of another professional environmental group who saw the importance of water in the state and the need for a group to address water issues. The Alabama River Alliance's staff of three full-time and two part-time people work

throughout the state to provide grassroots organizations tools they need to be successful. The Alabama Rivers Alliance brings together various water related environmental groups in the state and has about seventy grassroots organizations as part of their alliance. Water issues are important in Alabama because of the abundance of waterways in the state. One environmental group explained that water is an issue that goes up to higher levels and comes down to the local level and everything is connected to water. The Alabama Rivers Alliance is critical for other environmental groups since they help provide tools and resources environmental groups need to address water issues. The Alabama Rivers Alliance is centrally located in the state in the state's largest city, Birmingham. One reason this group may be so successful at being an information resource for other environmental groups is they are able to transcend the ideological boundary and be political, litigious, or neutral depending on the situation and the group they are working with. Almost one third of the groups in Alabama work on water issues and it seems logical for these groups to exchange information with a professional group that focuses on water issues.

Media

The second set of actors with whom environmental groups exchange information is the media. Media includes newspapers, radio, and television. Media is an important way environmental groups give out information because they can reach a broader audience. The media can help groups create awareness among the general public about an issue. The media is a key way environmental groups receive information about

upcoming events, proposals, ordinances, etc. Forty-four percent (eighteen) of the paid environmental groups exchange information with media and only 25 percent (twenty-four) of the all-volunteer groups exchange information with media. The paid environmental groups likely have more resources to do press releases and have the activities that may appeal to the broad media. Paid environmental groups are also likely to be the sources that the media turns to for press statements.

Environmental groups had both positive and negative feelings about the media. Some environmental groups explained they had a great relationship with the local newspaper and the newspaper would save them space once per month for an article on recycling or litter. Another stated that the media calls them for information more than they contact the media. One of the birding groups has a member that works at the local newspaper and he writes a weekly column about birding. He also helps the group get their schedule in the newspaper.

Other groups had difficulties with the media. For example, one group said they send information to the newspaper, but the newspapers never ends up doing anything. Another group leader felt it is necessary to educate the media on why something is going on. This group found that if they are working on a project that is positive and beneficial to the community, it will not come out in the news. Since this group does not work with controversial issues, it is difficult for them to get their message into the newspaper. Another group felt that the media was "bought and paid for" and therefore could not be objective. So while the media may be an effective way for environmental groups to get their message out, other interests control what gets released.

Local Government

The third set of actors with whom environmental groups exchange information is local government. The term local government includes county commission, city or county council, mayors, politicians, planning commission, recreation departments, etc. Roughly one-fourth of the paid and all-volunteer environmental groups said they exchange information with local government. Local government is important because they can affect zoning, development, waste management, and other activities in the area. It is critical to have this exchange of information so that informed decisions can be made at the local level. Some groups have had successful relationships with local government such as working together on water or conservation issues. Other groups maintain open communication with city and county officials.

Alabama Department of Environmental Management

The fourth organization environmental groups exchange information is the Alabama Department of Environmental Management (ADEM). ADEM is the state environmental regulatory agency. Environmental groups primarily receive information from ADEM or work with ADEM. Only three groups said they gave information to ADEM. Environmental groups receive information on permit notices or access ADEM's files to review violations. Information exchange with ADEM is important because they have the ability to issue permits or fines. ADEM also sets limits for environmental regulations. ADEM is currently a source of frustration for many environmental groups. As a result, environmental groups have formed the ADEM Reform Coalition (discussed

later) to address some of these frustrations.

Alabama Water Watch

The fifth actor with whom environmental groups exchange information is Alabama Water Watch. Alabama Water Watch is a program through Auburn University that began in 1992 with a grant from the Environmental Protection Agency and ADEM to start a community-based water program. Alabama Water Watch has cumulatively 240 citizens groups who have monitored 800 water bodies at 1,700 sites (interview with Alabama Water Watch). They currently have sixty-five active groups including lake associations, school groups, and environmental groups. At this time, they have five employees who work eight to twenty hours per week. Alabama Water Watch provides training, technical backstopping, and data management.

Environmental groups work closely with Alabama Water Watch. Environmental groups that participate in water monitoring submit about 80 percent of their data online to Alabama Water Watch. If these water monitoring groups have questions or see a change in their water monitoring results, they contact Alabama Water Watch for assistance. As part of a university, Alabama Water Watch has the staff and technical expertise to provide neutral assistance to these groups. They have also been extremely effective at getting citizens involved in water quality issues.

ADEM Reform Coalition

The sixth actor environmental organizations exchange information with is the ADEM Reform Coalition. The ADEM Reform Coalition was formed in 2002. They currently have thirty-eight member organizations consisting of a variety of nonprofit and grassroots groups. One of the reasons the ADEM Reform Coalition formed was environmental groups wanted to be proactive and not always reacting to situations. Frustration with ADEM is an issue most environmental groups face. The ADEM Reform Coalition was influential in replacing the previous ADEM director. They also made it easier for citizens to access public records at ADEM. They have allowed for citizens and environmental groups to speak during ADEM's Environmental Management Commission meetings where environmental policies are developed and permit hearings are conducted. The members of this coalition are working toward the same goal of ADEM reform and have become familiar with the member groups as part of this process. Even if groups in the coalition have different ideologies on other issues, they come together and "make decision by consensus" and "will put up a common front." As a whole, one group leader described the ADEM Reform Coalition as :

> Taking the path of not being sensational. They are just truthful. They have a good reputation . . . When they go to meetings, they dress nicely and speak well. They try to keep the middle ground.

Opportunities and Constraints to Information Exchange

There are other factors besides a group's identity and ideology that may affect information exchange. Certain opportunities allow for easier information exchange among environmental groups. Environmental groups that have affiliations with national organizations, work with sister organizations in other states, or are a chapter to a national group may provide opportunities for information exchange.

Affiliations

Environmental groups that are affiliated with national or state groups can supply information on the organization, activities in the surrounding area, and educational information. The national or state chapters are likely to have the same outlook or ideology on addressing an issue which may allow for easier information exchange. For example, one group explained that the national Land Trust Alliance provides local groups with information on policies and procedures, enables groups to apply for grants, and lobbies for them in Washington, D.C. Another group explained the National Wildlife Association provides information on activities in surrounding states. Environmental groups also receive information from national groups through conferences and workshops. For instance, one of the local water environmental groups explained the River Network and American Rivers are their primary sources of information and once a year these two groups hold an informative workshop/conference.

Sister Organizations

Sister organizations also provide opportunities for environmental groups to exchange information. Sister organizations often have similar activities and identities of neutral, political, or litigious, but operate under different conditions in other areas. One of the statewide environmental groups stated sister organizations like the Oregon Environmental Council, Georgia Environmental Council, and the Tennessee Environmental Council are useful.

Environmental groups are often specialized and do not have similar organizations in the state. Therefore, when these environmental groups need information or ideas, they may turn to groups in neighboring states. For example, one group explained that the Georgia Falconers Association is the closest group to them and they will work together. Another group explained, while there are other groups similar in the state, they just are not the same size and therefore, they work with groups of similar size outside the state. Another group discussed the benefits of meetings with groups in the surrounding states.

Chapters

Environmental groups can also be a chapter to a national organization. The national chapters are likely to have a similar ideology or approach to situations and can provide useful information to the local chapter. One group explained that being part of the Waterkeeper Alliance is vital to being a successful organization because it allows their group to take on more powerful issues. The Waterkeeper Alliance provides resources groups would not otherwise have. Several groups explained the Waterkeeper

Alliance has an excellent listserve, is the leading expert on clean water, and will help with everything except funding. The Waterkeeper Alliance groups in Alabama work closely together and have similar activities so they understand issues each group faces. Another group explained that information exchange among the state affiliates of Keep America Beautiful is excellent and the Alabama and Mississippi groups work great together.

Groups leaders I interviewed reported that national organizations like the Sierra Club and Audubon Society are starting to pay more attention to the state and local levels. This makes it easier for them to exchange information with the local groups. Another benefit mentioned concerning national organizations is local members receive significant information through the national group and their publications.

Not all environmental groups want to work under an umbrella group or with a larger organization. These groups are afraid they will lose their identity. Also, another environmental group felt national organizations have an apocalyptic or doomsday approach and did not find this approach effective.

Geographic Location

Even in an era of rapid electronic communication, physical proximity remains a factor in effective communication. Groups that are geographically close will work together. In addition to reaching groups quicker, local groups will support each other. One group stated "there is a common thread running through the organizations and by staying connected, they can help each other . . . They can't be a stand-alone organization." Another group felt that most of their issues are regional or local issues and they do not

really work with state groups. One group explained that at some point they have worked with all the groups in the area. There is a familiarity and knowledge about groups located in a particular area.

Overlapping Memberships

Overlapping memberships may provide opportunities for information exchange. Zald and McCarthy (1987, p. 174) hypothesize that "the more SMOs [social movement organizations] have overlapping constituencies, the more they should be constrained toward cooperation." Local organizations may have several people belonging to similar groups and this clustering is created through interpersonal networks (Zald and McCarthy 1987, p. 174). Similarly, Dalton (1994) noted that individual group members may also belong to other groups and networks and thereby establish links between these groups and networks. I found memberships do overlap especially in the local group areas. Information is regularly exchanged between groups through their members. One group I interviewed has members in other groups like Audubon Society and World Wildlife Fund and this helps with what they do in their environmental group. Another group explained their members are interested in conservation and tend to join the same hiking, birding, and wildflower groups. Another group expressed that because so many members are in other groups they end up working with these other groups too. This overlapping of members enables groups to be more informed.

Trust

Many environmental group leaders said that trust was a factor in working together with other groups, but it takes time to build trust. One group explained that after seven years, they are just getting people to work together and build trust. Another group felt that once you build a level of trust, one is able to get a lot of information. Another group explained the groups compete but if they trust you and like you then there will be more information exchange. This lack of trust, as one respondent mentioned, can come from personality, how they started, or because of different ethical standards. Lack of trust may also stem from the different ideologies groups possess.

Several of the groups expressed interest in getting to know other environmental groups in their area or in the state. A common suggestion was to get people from the groups together over a beer or food and not bring them together over a hot issue. Environmental groups see trust as a challenge and lack of trust can become an obstacle to information exchange.

Time Constraints

Whether for environmental groups with paid staff or all volunteer, time can be a constraint to information exchange. Diani (1995, p. 8) states that "Building alliances is, in fact, a costly activity, and substantial efforts and time may have to be devoted to this purpose. SMOs will therefore have to select between a number of potential partners, thus reducing the complexity of their environment." In Alabama, environmental groups do not have time to establish new linkages and exchange information. Just because ideologies

match, does not mean groups are able to overcome the obstacle of time.

One group explained they are staffed by volunteers and have to pull back from a project if they do not have enough people or money. Another group stated:

> At the grassroots level people are busy and it's harder to find people with time. If there is not an issue in their backyard, it's hard to get them involved. People get discouraged and it's harder for them to keep going. People get burnt out.

Even environmental groups with a paid staff explained that: "We have a small staff and we don't have time to communicate with the community . . . It's hard for small not-for-profit to develop relationships with local officials and companies." Many environmental groups want relationships with other environmental groups, but they do not have the time to develop them. For example the groups expressed:

- We want to do more at larger level, but get sucked into the minutia of things here.
- We want more information on grants or organizations to partner with but we have our hands full right now.
- We have strong relationships with the allies, but we don't spend enough time with the builders or elected officials.
- We are so busy with things now. But there will be a time when we will work with other groups.
- It's just him there and he has to be picky about what is a good partnership. He doesn't want to be spread too thin.

If environmental groups do not have the time, it makes it difficult to foster new relationships or explore other useful sources for information exchange.

Conclusion

As the resource mobilization theory states, organizations need resources to survive and these resources are not distributed evenly (Edwards and McCarthy 2004). This research shows that resources, such as time, funding, and knowledge, have an impact on how the information resource is exchanged. The ideologically structured action framework is important in explaining why certain groups choose to exchange information with whom they do. For Alabama, most groups identify themselves as political, neutral, or litigious and this can affect with whom groups exchange information. Many environmental groups want to stay neutral and that often means not working with groups that are litigious or political. Another difference of how a group's identity affects where they get their information is funding. Many environmental groups are cognizant of where other groups receive their funding and do not want to work with groups that are "too cozy with the big polluters." Environmental groups feel those funded by the big polluters have compromised their identity.

The structure of environmentalism in Alabama, with respect to information exchange shows that to the extent that groups have similar identities or ideologies, groups in similar regions exchange information and groups with a similar focus exchange information. Groups that are central to information exchange in Alabama have more resources and are sought by groups with fewer resources for information. Groups that are central to this information exchange are fluid and able to move across ideological domains, depending on the issue. Groups such as the Alabama River Alliance are flexible and adaptive. But just because a group has resources, does not mean

environmental groups will automatically work with them to exchange information. Even if groups want to exchange information with others groups, lack of time can prohibit information exchange and similar ideologies may not be enough to overcome all obstacles.

CHAPTER 4

RESOURCE MOBILIZATION AND INFORMATION EXCHANGE FOR FORESTRY NONPROFITS IN ROMANIA

Throughout the last century, Romania experienced significant political changes that have had a substantial impact on Romania's forest land owners. Forest land went from private ownership before 1949 to complete state ownership during the communist era and, for almost forty years, forest land remained state-owned. After the fall of communism in 1989, the new government began a slow process of restitution, giving forest land back to the pre-1949 owners. Under a new law passed in 2000, forests were given back to community forest owners, as well as to individuals and churches (Lawrence and Szabo 2001). In response to these new regulations, forestry nonprofits have been created to manage forests and provide a voice for these new forest owners.

This research examines three main types of forestry nonprofits in Romania to understand the importance of information as a resource, including the social structure of information exchange and the type and method of information exchanged. Resource mobilization theory is used to understand how information resources are mobilized. According to resource mobilization theory, organizations must obtain a variety of resources from inside and outside their organization to survive (McCarthy and Zald 1977). Examples of these resources include legitimacy, support, tacit knowledge about

specific tasks, labor, skills, expertise, money, equipment and supplies (Edwards and McCarthy 2004). These resources are unequally divided among social groups and resource mobilization theory provides a framework to examine how these groups "overcome prevailing patterns of resource inequality" (Edwards and McCarthy 2004, p. 118).

This research contributes to the literature on resource mobilization theory by using social network analysis to document the flow of information between actors. Information is often mentioned as a necessary resource, but few studies provide the rich detail on the type of information exchanged (Pierce et al. 1992; Shrestha and Britt 1997). Shrestha and Britt's (1997) research on community forests in Nepal and India stress the importance of examining resource management networks to develop a better understanding of how groups are linked and the patterns of information exchange.

Examining information exchange among forestry nonprofits and their social structure is important to understanding how these social institutions operate. Brock and Banting (2001) explain that in order to understand the importance of the nonprofit sector and how it functions, it is critical to understand the nonprofit's relationship with other actors and organizations in society and the economy. The Romanian case is interesting in part because for the first time in forty years, their society has the ability to form nonprofit organizations (Johnson and Young 1997). Gallagher (2005, p. 7) suggests that:

> "Under communism, civil society was pulled up by the roots . . . most citizens grew accustomed to being centrally directed by the state. Fear of the state and reluctance to dispute its authority, at least openly, meant that after 1989 there was

still a strong reluctance to form or join interest groups, and associational autonomy in Romania was stunted."

During the last fifteen years, organizations have begun to form and civil society is taking root. This is certainly true for environmental nonprofits in Romania, which are playing a critical part in protecting natural resources (Buza et al. 2001). The newly established right to establish nonprofit organizations and the return of forest land to private ownership after forty years of centralized control are reshaping the face of Romania's forests. New owners and new actors are starved for information. Thus, it is important to understand the structure of information exchange among forestry nonprofits and their relationships with other actors and organizations. Understanding who the actors are, what and how information is exchanged, and the needs of these organizations are critical to effectively managing Romania's forests. Lawrence and Szabo's (2001, p. 14) work on community forests in Romania suggest that "fundamental internal change is taking place" and it is important to understand the "implications for actors' value systems, roles and relationships." Additionally, Bouriaud (2001, p. 143) makes the point that "A greater understanding of private owner behavior and a bottom-up approach of policy measures are needed, especially in the context of the new changes in the forest ownership structure."

The overall purpose of this research is to use resource mobilization theory to explain information exchange among forestry nonprofits in Romania. The main objectives are to examine three types of forestry nonprofits in Romania by 1) examining the attributes of each nonprofit type; 2) exploring the type and method of information

exchanged; 3) using social network analysis to show the social structure of information exchange; and 4) discussing the limitations of information exchange.

Methods

Vrancea County was chosen as the focus of this research because of personal familiarity with the area developed during five visits from a previous research project on community forestry[1]. Since the structure of private forestry is the same throughout Romania, with private forest districts, forest associations, and community forest owners, I would argue that other forested counties in Romania would have similar forest nonprofit relationships to those in Vrancea County. Vrancea County is located in southeastern Romania and has a total surface area of 4,857 km^2 (Vrancea County Council 2004). In 2000, Vrancea County had more than 390,000 inhabitants, with 62 percent of them living in rural areas (Vrancea County Council 2004).

Vrancea County is rich in flora and fauna with almost 1,500 species of plants and fauna such as the eagle, bear, lynx, and wild boar (Vrancea County Council 2004). Vrancea has sixteen natural reservations, or protected areas, with a surface of 2,862 hectares. Forestry and agriculture are the main sources of the county's economy (Vrancea County Council 2004). Table 4.1 shows the forest ownership for Vrancea County, Romania.

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[1]The two previous projects occurred from 2001 - 2003. One project was titled *Private Forests Sustainable Management Project with Auburn University and Composesorat Zetea (CompoZ)* and was funded by World Learning Romania-American Sustainable Partnerships Umbrella Grant Program. The second project was titled *Support of Sustainable Natural Resource Management Policies in Romania: Forest Ownership and Management Awareness* and was funded by the United States Department of Agriculture and the South-East Consortium for International Development.

Table 4.1 Approximate forest ownership for Vrancea County, Romania, 2005

Ownership type	Area (hectares)	Percent of forest in Vrancea County
Obste (community forest)	62,000	32
Monasteries	1,000	<1
Private Individuals	28,000	15
State	100,000	52
Mayors	1,400	<1
Total	192,400	100

Source: Territorial Authority of Forestry & Hunting (*Inspectoratul Teritorial De Regim Silvic şi Vânatoare*), interview 2005

Five weeks were spent in Romania during May and June 2005 collecting data for this paper. Four weeks were spent in Vrancea County and one week in the capital city of Bucharest. A key informant from Vrancea County assisted in identifying the forest nonprofits in Vrancea County and arranging interviews. Face-to-face, semi-structured interviews with leaders of forest nonprofits were the primary method of data collection. An interpreter was used to conduct these interviews. The interpreter was a Vrancea County resident who recently received a degree in English. Interviews were not tape-recorded but detailed notes were taken during the interviews and written up immediately afterwards. Therefore, the interview discussions provided in this paper are paraphrased comments from the respondents and not direct quotes.

The number of people that participated in each interview ranged from one to seven, with interviews lasting from forty-five minutes to several hours. Thirty-three interviews were conducted with organizations mainly in Vrancea County and a few

national organizations in Romania. The interviews included local forest associations, local private forest districts, local forest landowner groups, local and national environmental nonprofits, local and national government institutions, a funding agency, and forestry universities.

Data was collected on the attributes of the organizations (e.g., goals, structure, and activities). Data was also collected on how organizations exchange information. For the purpose of this research, information sharing or information exchange is the giving or receiving of information that supports the goals of either organization. Exchange of information can occur through face-to-face contact, phone calls, emails, newsletters, websites, seminars, conferences, etc. I focused on information related to an organization's goals because in order for organizations to survive, they need to attain the goals they set for themselves (Gross 1969).

Social network analysis was used to determine the network structure of information exchange. Social network analysis examines a collection of actors, either individuals or organizations, and the ties between them (Wasserman and Faust 1994). Social network analysis allows researchers to understand relationships, not just attributes, of an individual or organization. Identifying these networks helps provide a bridge between structure (institutions) and agency (individuals) (Passy 2003; Halperin 1994). By looking at the ties or relationships between actors we can understand which environmental groups play central roles in information exchange. Centrality is measured by the number of actors to which each group is tied (Diani 1995). The more central an actor, the higher the degree of interaction with others in the network (Tindall 2002).

Diani (1995, p. 108), in his work on the Italian environmental movement network, explains that "Central actors will obviously be in a better position than peripheral ones to act as co-ordinators between the different segments of the network. They will be able to pool and distribute mobilization resources, to spread information, to promote mass campaigns more quickly and effectively than more isolated groups and organizations." By knowing how these actors interact and how they exchange information among themselves, as well as outside organizations, we can begin to understand how to ensure these actors are getting information they need or are providing others with necessary information for managing Romania's natural resources and being a voice for Romania's forest.

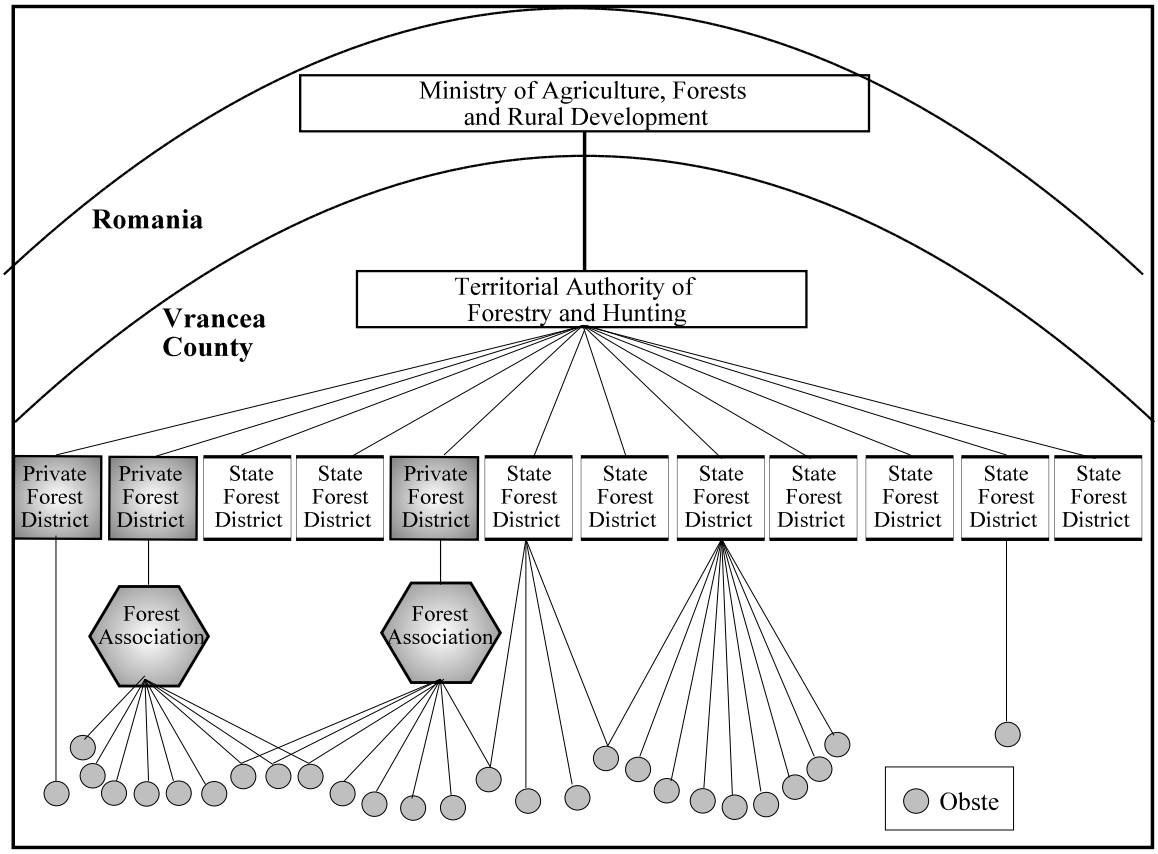
The social network analysis software, Ucinet 6.109, was to describe the information exchange of these nonprofits (Borgatti, Everett, and Freeman 2002). Ucinet's Freemen Degree calculation was used to calculate the number of connections or ties a group has. Knowing the degree, or number of connections of a nonprofit may indicate groups that are exposed to more and diverse information, may be more influential, and may have other ways to satisfy their needs (Hanneman and Riddle 2005). Tindall (2002) explains that the more central an actor, the higher degree of interaction they have with others in the network. Degree is used to explain how information resources are exchanged with the forest nonprofits in Vrancea County, Romania.

Results and Discussion

There are three main types of forest nonprofits in Vrancea County, Romania. First is the *obste,* a nonprofit community forest landowner organization whose ownership type is classified as undivided private ownership. The members of this group all have equal rights or shares to the revenue from the forest. Second is a forestry landowner association which is a nonprofit organization typically consisting of several *obste* with forest land less that 10,000 hectares, whose main purpose is to form a private forest district. The law states that in order to have a private forest district one must have at least 10,000 hectares of forest land. Once the forest district is formed, the forest landowner association then becomes a collective voice for the *obste* belonging to that association. Third is the private forest district, a nonprofit whose main purpose is to manage the forest lands in accordance with the laws and wishes of the forest landowners. In essence, private forest districts are the technical extension of the forest association with trained, paid staff to managed the forest. Figure 4.1 shows the relationship of these groups to other forest actors in Vrancea County.

Outlined below is a description of these actors in Vrancea County, Romania. The three types of groups are presented below as case studies, describing the attributes of the group and the type and method of information exchanged. The network structure of information exchange for the three nonprofit types is described. Finally, the limitations to information exchange for these groups are discussed.

Figure 4.1 Relationship of the three forest nonprofit organizations in Vrancea County, Romania



Obste

Obste, which means "community" in Romanian, is a type of community forest land ownership where the forest is classified as undivided private ownership[2]. There are twenty-six *obste* in Vrancea County and leaders of thirteen *obste* were interviewed for this research. *Obste* have an average of about 2,000 hectares of forest land each and comprise almost one-third of the total forest ownership in Vrancea County. The *obste*

[2]Romania has two types of private undivided community forests called an *obste* and a *composesorat*. The main difference between an *obste* and a *composesorat* is how the revenue from the forest is divided among the members. Both types of community forests can be managed by a private or state forest district. There are no *composesorats* in Vrancea County.

began around 2000-2001 when their land was given back during the restitution process.

Although the contemporary *obste* are new, many of the rules for their organization existed prior to the 1950s when the communist government took over their land. Most of the *obste* were officially formed around 1921 and as an organizational form *obste* date back to 400 years ago when Stephen the Great was ruler. One *obste* leader explained the origin of their *obste* rules:

> There are very few rules left from the early 1920s to tell them how to run the *obste*. But the *obste* took some ideas from the elders. Some of the rules of the *obste* are the same that existed before 1949. It's actually like we lost fifty years of doing nothing.

Another respondent noted that their *obste* was originally formed in 1921 and most of the rules and borders are the same from 1921. A third explained that the original rules from the past are still good but have to be adapted to meet contemporary legal requirements.

The main purpose of the *obste* is to work for the benefit of the community and protect their forest land for future generations. The *obste* want good results from the forest so they can bring benefits to the community. One *obste* leader explained that the purpose of their *obste* was to develop forest activities for the benefits of the community. Another stated that their purpose was taking care of the woods, harvesting them, and giving the forests to future generations. The theme of caring for the forest for future generations was expressed in several of the interviews. Another respondent explained that the purpose of their *obste* was to administer the property they have and to work for the benefit of the community and to maintain the forests for the benefit of future

generations.

The *obste* are structured organizations with well-established operating systems. The structure of the *obste* are uniform, with a Council of Administration and a Commission of Chancellors. Usually this Council of Administration has a President, Vice President, Secretary and two to three members. The Commission of Chancellors has three to four members whose main function is to handle finances and contracts of the *obste*. The Council of Administration and the Commission of Chancellors are elected by the General Assembly every two to five years, depending on the *obste*. The General Assembly consists of every member of the *obste*. For the majority of the *obste*, every member in the General Assembly has equal rights and votes are by secret ballot. The Council meets once per month and the General Assembly will meet once per year unless a special case arises.

The number of members in an *obste* varies from around 400 to 3,000 members. The membership requirements vary with each *obste,* but in general to be a member, you must be eighteen and live in the area (village, communa, or town). Both males and females can be members. If someone moves from the area, they lose their rights to the *obste*.

The activities of each *obste* also vary. Usually, the *obste* will use the revenue from harvesting their forest and give money or wood to each member. They will also use the revenue to repair roads, build a cultural center or health center, and give money to the church and school. The activities of the *obste* depend on existing resources of the community. For example, some areas already have decent roads, schools, and a health

unit. Therefore, revenue from the forest for these *obste* would go directly to the members in the form of cash or firewood. However, in other communities with fewer resources, the *obste* may use the revenue from the forest to build and repair roads and bridges, or bring running water to the area. One *obste* leader explained:

> Each member receives 1.5 m^3 of wood. If they don't want wood, they can have the counterpart in money. The rest of the money is invested for the benefits of the community. They give money to the church. They brought cable TV to the area. With the money they have they will also build two new bridges and they hope to have them finished this year. They also have two sawmills that belong to the *obste*. If a person dies then the *obste* gives 5,000,000 lei [about 200 U.S. dollars] to the family. They also supply free wood for young people that want to build houses. They give them 10 m^3 of wood for the house. If a house is damaged by fire or floods they will also give them wood.

Overall, the main purpose of the *obste* is to provide benefits to the community from the forest. The *obste* regularly, daily or weekly, exchange information (regulatory, economic, and technical) on forest activities with the forest landowner association and the private forest districts. Regulatory information includes rules, new laws, and pending legislation. Economic information relates to the prices and value of wood as well as the financial status of the *obste*. Technical information includes amount of wood cut, planting of trees, protection of land, status of activities, and general forest management. *Obste* depend on the information from the private forest districts since there are currently no education courses in Romania for private owners (Bouriaud 2001).

Obste also provide information to their members concerning present finances and budgets, results of revenue from the forest, quantities of wood to be cut, and status of activities and accomplishments. The *obste* have mechanisms to give and receive information to their several hundred members. *Obste* have annual meetings where the entire General Assembly, all members of the *obste*, are invited. In some areas, the *obste* are comprised of every adult member in the village. The Council of Administration presents the General Assembly with the activities and finances of the *obste* for the year. They also discuss what future activities the *obste* will carry out over the next few years.

If the *obste* are a member of a forest association, their Council of Administration will meet monthly with the forest association to discuss various activities. The presidents of the *obste* will meet weekly with the private forest districts to discuss the activities in the forest.

The *obste* usually exchange information through telephone, fax, face-to-face, through meetings, churches, schools, or posters. For example, one *obste* describes the various ways they let their members or General Assembly know if there is something new:

> They let them know through the post office. Also decisions of the council are posted outside the *obste* headquarters and they can see every decision. They will let the newspapers know if they are having an election. They also use the church and the priest will tell the people.

Another *obste* distributes information to the members by putting up posters within the church, as well as going house to house to let people know. Other *obste* will post written

messages in public places by the churches or schools.

The *obste* have little access to internet and email and therefore are unlikely to have connections at the national or international level. They do have direct access to almost every member of the village and are well informed about the needs of their village. As time goes by, it is likely that the *obste* will have computers and access to internet and email. The *obste* are a key link to the local residents of an area and can have local knowledge that provide outside organizations with critical information about how the villagers are using the forest resources. The *obste* are also a conduit to distribute educational information on new legislation or sustainable forestry practices to essentially entire villages.

Forest Landowner Associations

Obste are unable to manage their forest land themselves. By law, their land must be managed by a private forest district or a state forest district. *Obste* are required to have a contract with a forest district, state or private. *Obste* may choose to have their land managed by which ever forest district is closest. However, there are some that do not want their land managed by the state and they will have their land managed by a private forest district no matter how far away they are.

If the *obste* have their land managed by a private forest district, then the *obste* usually belongs to a forest association. There are two forest associations in Vrancea County and interviews were conducted with representatives of both groups. These two associations are called Association of Obşti of Putna Valley (*Asociaţia Obştilor Vãii*

Putna) and Association of Obşti in Vrancea (*Asociaţia Obştilor Vrâncene*). These associations were formed because the law says a private forest district must manage at least 10,000 hectares.

The main purpose of the forest landowner association, outside of forming a private forest district, is to be a collective voice for the *obste*. One of the associations explained that forest associations represent *obste* to the authorities. Another explained "They formed the association so they can have a bigger voice. With a bigger association, they are a bigger force. They also receive information better."

Most *obste* belong to just one association. There are three *obste*, however, that belong to two associations for geographic reasons. In these cases, part of their forest land is on one side of the mountain, near one private forest district, and the other part of their land is on the other side of the mountain, near the other private forest district. There is not a good road to get to the two sides of the mountain. I asked if there were differences in the two forest districts and one *obste* explained that they are satisfied with both districts, but are closer to one of the associations and contact them more often.

The forest landowner associations have a Council of Administration which is made up of a president from each *obste*. They also have a president, vice president and a secretary, who is usually the chief of the private forest district. The members of the forest landowner associations are the *obste* that belong to that association.

The main purpose of the forest landowner associations is to represent *obste* interest in managing their land. The forest landowners associations primarily exchange information with *obste* and private forest districts. Information they exchange with *obste*

and private forest districts relates to the forest activities or new forest legislation. One *obste* leader explained that every *obste* has a plan and it gets sent to the association. The association sends the information to the other *obste* so all the *obste* know what the others are doing.

The forest associations have direct access to several *obste*, which have access to almost every member of the village, and are well informed about the needs of the villages. Therefore, the forest association is knowledgeable of the needs of these community forest owners and are able to voice the concerns of the *obste* or relay information to the national forest land owners nongovernmental organization called the Association of Forest Owners in Romania (APPR) (*Asociaţia Proprietarilor de Păduri din România*). The forest associations normally provide information to the APPR even if they do not agree with everything the APPR does. However, the forest landowner associations do not receive much information from the APPR and are currently unsatisfied with this organization that is supposed to represent private landowners' interests. The one benefit of the APPR that the forest associations mentioned pertained to legislation. The forest associations are able to give the APPR information about laws they do not agree with.

The forest associations receive local knowledge from the *obste* and are able to transfer this information to the forest districts. The forest associations also receive regulatory and technical information from the forest districts and pass the information to the *obste*. Once a month, the *obste* meet with the forest association to exchange information on legislation or discuss problems and actions that need to be addressed. If the government needs to give the *obste* information, it is not sent directly to the *obste*, but

to the forest association.

Private Forest Districts

The purpose of the private forest districts is to assure protection of the forests and work in accordance with the Forestry Code of Romania. All forest land, whether state or private, must be managed by a forest district which must comply with the same rules outlined in the Forestry Code. The private forest districts consist of a chief, or head, of the forest district and around twenty-five to thirty employees, including forest engineers, technicians, rangers, and chief rangers.

There are twelve forest districts in Vrancea County. Nine are forest districts operated by the state and three are private forest districts. I interviewed all three private forest districts and one of the state forest districts. For a private forest district to form they must have a minimum number of hectares they manage, about 10,000 hectares for the mountain region. If a single landowner (e.g., an *obste*) does not have enough hectares to meet this requirement, they must combine with other landowners to form an association. This forest association, which is discussed in the previous section, is then able to form the private forest district.

The three private forest districts in Vrancea County are Forest District Naruja (*Ocolul Silvic Năruja*), Forest District of the *Obstea* Tulnici (*Ocolul Silvic Obştea Tulnici*), and Forest District Tulnici (*Ocolul Silvic Tulnici*). Of these three, one of them, Forest District of the *Obstea* Tulnici, is operated by one *obste* that has enough land on its own to form a forest district without having to form an association first. This is the largest

obste in Romania and the first to have their own forest district. Forest District Naruja is composed of nine *obste* and also manages communal forests that belong to two mayors. Three *obste* have portions of their land managed both by the Forest District Naruja and by the Forest District Tulnici. Forest District Tulnici consists of eight *obste* and one association of private individuals. This association of private individual land owners is the only one of this kind in Vrancea.

The three private forest districts began between 2002 and 2004. Prior to being a private forest district, most were state forest districts and many have the same employees as when it was a state forest district. These private forest districts have been successful at making the transition from state to private forest districts. Just because many of the private forest districts were former state forest district employees, does not mean they still have ties to the state forest district organization, RomSilva. In fact, one of the private forest districts said they did not want to work with RomSilva at the local or national level.

One of the private forest districts is well-connected to several groups at the local, national, and international level. The chief of this private forest district, a graduate of the main forestry university in Romania, is participating in discussions with the national government and other organizations on the creation of a new forest law. This same individual has participated in forest workshops and meetings throughout the world. His forest district was the first private forest in Romania to become certified under the Forest Stewardship Council's forestry certification program. The chief is well-respected throughout Romania and has been elected to serve on the Association of Forest Administrators (discussed later). The chief also has regular interaction with national and

international organizations, such as World Wildlife Fund, and maintains regular contact with the Romanian Ministry of Agriculture, Forests, and Rural Development (*Ministerul Agriculturii, Pădurilor, Dezvoltării Rurale*) (Ministry) and these contacts allow him to disseminate critical information to several organizations in Vrancea County and throughout Romania.

Generally, the forest districts work primarily with *obste* and forestry associations, the regional government forest office, a national forest organization, local mayors and private companies. The private forest districts are in regular contact with the *obste.* They have monthly meetings with the presidents of the *obste* to discuss the activities for the next month. They provide regulatory, economic, and technical information to the *obste.* Also, every Monday, the *obste* presidents come to the forest district offices to discuss the activities for the week. Whether through face-to-face meetings, phone, fax, or letters the forest districts are in constant communication with the *obste.* The private forest districts exchange some information over the internet with organizations outside Vrancea County.

The private forest districts give technical information pertaining to forestry activities such as amount of wood cut and plantings to the Territorial Authority of Forestry & Hunting (*Inspectoratul Teritorial De Regim Silvic şi Vânatoare*) (ITRSV). The ITRSV, in turn, sends this information to the Ministry.

The private forest districts also work with the national forest organization called the Association of Forest Administrators (*Asociaţia Administratorilor de Păduri)* (AAP). The AAP is an organization that works with forest managers of the more than ninety private forest districts in Romania. The two main objectives of the AAP are to provide

sustainable forest management in private forests and provide dialogue between the forest administration and the Ministry in order to be involved in legislation. One private forest district said the AAP was the best voice to cover problems in the private forest districts. The information exchanged with the AAP usually relates to changing forest legislation. One AAP leader explained that profound changes are happening to forestry legislation and AAP regularly updates their members on this legislative change through email. Bouriaud (2001) explained that the 1996 forestry law does not distinguish between private and public management and only recently have there been efforts to create rules for private forestry.

Private forest districts receive regulatory information from the Official Monitor (*Monitorul Oficial al Romaniei*), which publishes regular updates to the Romanian legislation. Private forest districts also receive information through email, letter, phone, fax, and in person. Private forest districts have some access to the internet and email and thus are better able than the *obste* to communicate or receive information from national and international groups. They also communicate regularly with the *obste* and the forest associations to receive local knowledge and concerns as well as distribute technical or regulatory information. The private forest districts have access to both the local village people as well as national or international groups.

Network Structure of Information Exchange

Looking specifically at each of the organizations in Vrancea County, it is important to understand who works with whom and which groups are central in the information

exchange network. In addition to qualitative information used to describe how information is exchanged, quantitative data can provide additional insight to these exchanges. Social network analysis is used here to help paint a picture of the information exchange occurring in Vrancea County.

Representatives of each organization interviewed were asked who they give information to and who they receive information from. The respondents often rephrased the question and responded with information regarding groups with which they had worked, implying a two-directional relationship. Therefore, to get an overall understanding of information exchange responses to the give, receive, and work with questions were compiled into an "exchange" category. The resulting information exchange category is the focus for this discussion.

Figures 4.2 and 4.3 represent two of the network structures of information exchange for the three types of forest nonprofits (*obste*, forest association, private forest district). Table 4.2 is the key code to the list of organizations shown in figures 4.2 and 4.3. Figure 4.2 shows the network structure of information exchange only among the three forest nonprofit groups interviewed. The structure of information exchange shows that private forest district and forest associations overlap and are essentially one and the same when looking just at the forest nonprofit groups. The forest associations, forest districts, and *obste* represent a hub and spoke structure with the *obste* being at the end of the spoke. The two outliers of this group represent the *obste* which has enough land by itself to have its own forest district. The forest districts and forest associations are at the center and thus are key figures in this information exchange network.

Figure 4.2 Structure of information exchange among only the three nonprofit types interviewed in Vrancea County, Romania

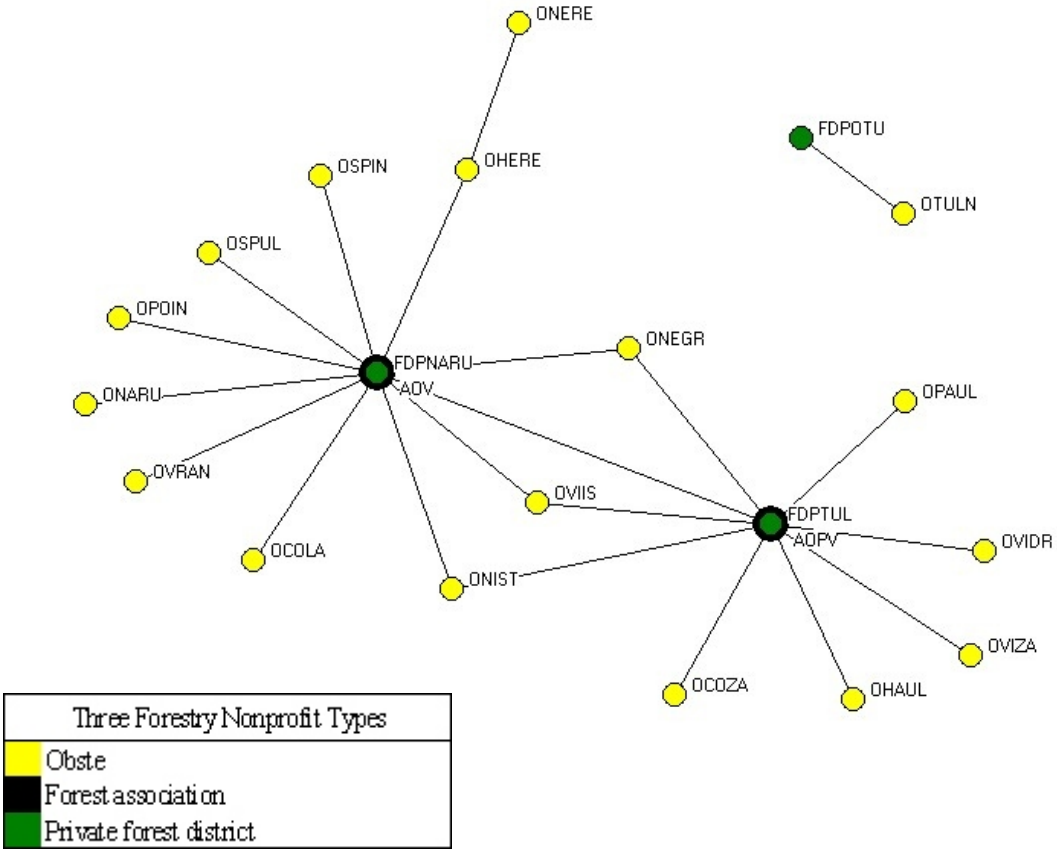


Figure 4.3 Information exchange networks of the three nonprofit groups interviewed based on the degree or number of ties of an actor

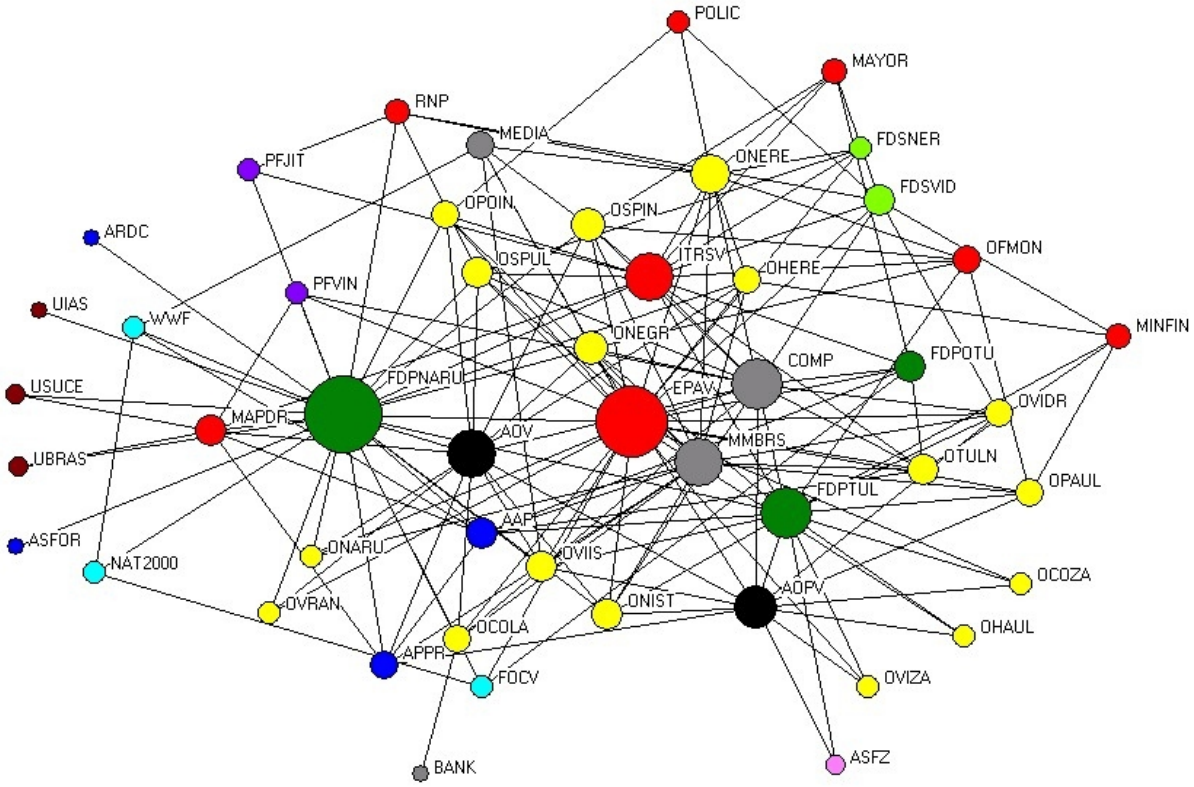


Table 4.2 Key code to the list of organizations shown in Figures 4.2 and 4.3

Code	Organization Name	Type of Organization
AAP	Association of Forest Administrators	nongovernmental organization
AOPV	Association of Obsti of Putna Valley	forest association
AOV	Association of Obsti in Vrancea	forest association
APPR	Association of Forest Owners in Romania (APPR)	nongovernmental organization
ARDC	Romanian Association of Community	nongovernmental organization
ASFOR	Romanian Forestry Association	nongovernmental organization
ASFZ	Asociatia Fitionesti Zabrauti	forest association of private individuals
BANK	Bank	other
COMP	Companies	other
EPAV	Environmental Protection Agency in Vrancea	government
FDPNAR	Forest District Naruja	private forest district
FDPOTU	Forest District of the Obste Tulnici	private forest district
FDPTUL	Forest District Tulnici	private forest district
FDSNER	Forest District Nereju	state forest district
FDSVID	Forest District Vidra	state forest district
FOCV	Assoc. for Sustainable Development 'Focul Viu'	environmental nongovernmental organization
ITRSV	Territorial Authority of Forestry & Hunting	government
MAPDR	Ministry of Ag., Forests, & Rural Development	government
MAYOR	Mayors	government
MEDIA	Media	other
MINFIN	Ministry of Finance	government
MMBRS	Members	other
NAT2000	Nature 2000	environmental nongovernmental organization
OCOLA	Obste Colacu	obste
OCOZA	Obste Coza	obste
OFMON	Official Monitor	government
OHAUL	Obste Haulisca	obste
OHERE	Obste Herestrau	obste
ONARU	Obste Naruja	obste
ONEGR	Obste Negrilesti	obste
ONERE	Obste Nereju	obste
ONIST	Obste Nistoresti	obste
OPAUL	Obste Paulesti	obste
OPOIN	Obste Poiana	obste
OSPIN	Obste Spinesti	obste
OSPUL	Obste Spulber	obste
OTULN	Obste Tulnici	obste
OVIDR	Obste Vidra	obste
OVIIS	Obste Viisoara	obste
OVIZA	Obste Vizantea	obste
OVRAN	Obste Vrancioaia	obste
PFJIT	Private forest in Jitia	private forest
PFVIN	Private forest in Vintileasca	private forest
POLIC	Police	government
RNP	National Forestry Administration (RomSilva)	government
UBRAS	Faculty of Forestry of Braşov	university
UIAS	Faculty of Forestry Iasi	university
USUCE	Faculty of Forestry of Suceava	university
WWF	World Wildlife Fund	environmental nongovernmental organization

Figure 4.3 shows the information exchange networks for the three forest nonprofit groups interviewed based on degree or number of ties (i.e., those with more exchange relationships have a larger circle). As shown in this figure, the Private Forest Districts of Naruja and Tulnici, along with their forest associations of Putna Valley and Vrancea are some of the central actors in this network. The local government organization of the ITRSV and Environmental Protection Agency in Vrancea (*Agenţia De Protectie a Mediului Vrancea*) are also central actors in the network. Companies and members of the *obste* (General Assembly) also have high degree or number of ties. Companies, such as saw mills, is a collective term to represent all forest companies with whom the respondents exchange information.

Figure 4.3 shows the Private Forests Districts of Naruja and Tulnici are central in the network and thus are in a position of power because, of the three forest nonprofit types, they are connected to the most actors. These central actors are likely to have more information, more influence, multiple perspectives, more knowledge, more power and a variety of choices to satisfy their needs (Hanneman and Riddle 2005). These two private forest districts exchange information with organizations at the local and national level. This is important to recognize since Romanian forestry legislation is undergoing changes to include rules adapted to private forestry. It also important to understanding that the private forest districts receive multiple perspectives on forest management through their connections to other private forest districts that belong to the AAP. The private forest districts have knowledge from both top-down (Ministry and AAP) and bottom-up (*obste* and villagers) perspectives. The private forest districts are also able to be a larger voice

to the Ministry for these new changes in legislation and are in touch with the *obste,* who are in turn in communication with the majority of the villagers or people in the town. Private forest districts have paid professionals who work full-time just on forestry.

Limitations of Information Exchange

One of the limitations to information exchange for these actors is trust of other groups. In the social capital literature, the concept of bridging and bonding is discussed where bonding occurs within groups that have shared identities and bridging connects different types of groups (Healy 2003; Putnam 2000). The three types of forestry nonprofits generally have trust among their own organization. Issues of trust usually appear when dealing with outside groups or groups of a different identity. This distrust seems to stem from the forty years of communist rule and the different perspectives individuals have on how current issues are handled.

Badescu, Sum, and Uslaner (2004, p. 316) explain that Romanians "do not trust other citizens and certainly do not trust political authorities. They have little faith in their democratic institutions and do not display the tolerance that is the hallmark of the democratic citizen." Mishler and Rose's (1997, p. 419) work on trust and distrust in post-communist societies explain that "The immediate problem is overcoming the abiding cynicism and distrust which are the predictable legacy of Communist rule. Citizens in Central and Eastern Europe have good reason to distrust political and social institutions."

Issues of trust were present in interviews with all three types of actors. For example, one *obste*, whose land is managed by a state forest district, stated that "people

don't trust private forest districts. People are afraid to move on and develop. They want to take things slow so they feel more safe with the state." Others don't trust the state to manage their land. One forest district leader raised a concern about trust, saying it is difficult because of all of the years of the police and *securitate* (secret police). People are not willing to, or are slow to, open up to others. It is also difficult to build networks and relationships if the trust factor is not there. Even the possibility that through democratic reforms there would be changes proved unsettling to one respondent, who said "it is hard when every four years the government changes and people change. It is difficult to establish relationships and get things accomplished." Another individual explained that "Few people give other people real information. People will tell them half of the truth. Often they have to search for the truth themselves and this can get them in fights. There are people that want to give them misinformation."

It is also difficult to build trust when these organizations are so young. Even within government agencies this occurs. One government official explained their agency is a young institution, founded in 2000, and they have suffered a lot of changes as they try to find their place. Issues of trust with state and private actors affect with whom groups exchange information.

In addition to issues of trust, there are also difficulties getting access to information. The Ministry said people have access to all of the laws and can make comments about proposed laws. They also explained that all of the information is on the internet. But few *obste* members have access to the internet. This is one reason it is so critical for the forestry associations and private forest districts to give information to the

obste. It is hard for the *obste* in the villages to get information, as one *obste* member explains that "Education is poor and so people are easily influenced by political issues. It's hard to receive information. The *obste* try to make things better."

When I asked leaders of the forest associations who they want to work with, their responses revealed frustration caused by isolation. Many communities are very isolated and without the internet, how would they know with which groups to work? Some of the villages are just now getting telephones in their homes. Even if they do not have access to information, they still would like more information. One respondent indicated that there are groups they want to work with. They just do not have information on other groups. They don't know names of groups or any information. They do think it is in their benefit to learn from the most developed countries. They are willing to have this experience in order to improve the conditions in their communities. These are the types of issues they want to collaborate with.

The *obste* are eager to work with other organizations that may be able to help them. Most of the people I interviewed in Vrancea County grew up in the local area. The benefit to this is that they are familiar with the area and strong relationships have likely been established. However, one of the down sides is they may not have contacts or resources outside of their local area. One said they would like to collaborate with anyone, but no one comes to their village. Many of the *obste* wanted information on infrastructure and roads. They also want information on processing wood. For example, one *obste* suggested they would work with anyone that is available, whether it is economically, culturally, or whatever and are open to any initiative. Another *obste* leader

stated:

> We would love to work with other groups but these other groups are not interested in them. For example, we would like to work with an organization that deals with management. We want to get information on how to have better infrastructure and how to have better collaboration. We would like to see if there is a better way to run the *obste*. We would like to collaborate with tourism organizations. Because in 2007, when we become a part of the European Union, then we may not be allowed to cut wood and then we would need tourism. We would like to partner with *obste* outside of the county that are similar to them. We would like to partner with other towns outside the country. We are isolated for now.

I also asked the organizations if there are groups they do not want to work with. A few said they do not like working with political groups. The *obste* will avoid companies that give them trouble. A few of the organizations said there are particular individuals they do not want to work with. But mostly there are no organizations they avoid.

Conclusion

Romania's political and social structures are still adjusting to the new form of government. Although relatively new, forest nonprofit organizations in Romania can have a tremendous impact on Romania's rich natural resources as well as new forest legislation created for private landowners. Taking one slice of Romania, Vrancea County, and examining information exchange among the nonprofit groups that pertain to the environment may help us better understand how to effectively transmit information.

Information is an important resource for these forest nonprofits. As the resource mobilization theory explains, resources such as information are needed for organizations to function. These resources can come from inside or outside the organization. This research examined the types of information the three types of forest nonprofits possess and need as well as the methods they use to exchange information. The *obste* have detailed local knowledge but need to be kept informed of the forest regulations and technical aspects that impact their forest. The forest association and private forest districts are a key information resource for the *obste* to obtain this regulatory and technical information. The forest districts are the central link for local and state agencies and are able to share regulatory and technical information with the *obste* and forest associations.

Social network analysis showed that the private forest districts and their forest associations are critical for getting information from the Ministry to the *obste* and vice versa. The private forest districts, with their paid, full-time professionals have the resources to work on key issues such as new forestry legislation for private forest owners. The private forest districts work closely with the *obste* to know how forestry legislation will impact the community forests. Involvement of the local residents (members of the *obste*) is important because as Buza and Turnock (2004, p. 140) cite (Ioras et al. 1999) and state "the involvement of communities in forest management is now considered a realistic option to limit fragmentation and retain the forest as a complex and valuable natural resource system while allowing decentralization so that local interests benefit."

Although this study is in Vrancea County, there are other community forest organizations throughout Romania that have well-organized structures and established means of disseminating information. It is likely that the more than ninety private forest districts in Romania and their associated forest associations and community forests exchange information in similar ways.

This research examines how the information resource is exchanged and may provide insight for national and international organizations that need to reach the local levels in Romania. International networks often have difficulty reaching the local level (Colchester et al. 2003). Understanding how information is exchanged for forest nonprofits may enable the national or international networks to reach the local level. Also, understanding the method of information exchange may help outside organizations to transmit information in an appropriate manner, realizing that email, letters, faxes, and websites, will reach some and not others.

CHAPTER 5

CONCLUSION

This research consisted of two separate studies - environmental groups in Alabama and forest nonprofits in Vrancea County, Romania - using similar methods and research questions. For both studies, I consider information to be a key resource and use resource mobilization theory to examine how organizations in these two areas exchange information.

As the resource mobilization theory suggests, organizations need certain resources to survive. For environmental groups information - scientific, regulatory, and local knowledge - is central to changing policy, informing citizens and influencing industry. Technical information, both regulatory and scientific, is needed to have an impact on policy. In Alabama, environmental groups with paid staff have more resources available to them such as time, funding, and information. On the other hand, environmental groups that are all-volunteer often have limited time, funding, and technical knowledge but have important local knowledge of their area. This research found that the all-volunteer groups turn to the paid, professional environmental groups for technical information. When addressing broader policy issues, local knowledge is not central for the professional groups but does enhance effectiveness.

Other factors besides being all-volunteer or having a paid staff impact information exchange. Using the ideologically structured action framework, I show that ideologies and identities of a group affect information exchange in Alabama. Environmental groups in Alabama perceive themselves and other groups as political, litigious, or neutral. An environmental group's perception of another group's identity or ideology will affect information exchange. Many neutral groups do not want to get involved with political or litigious groups. Other environmental groups do not want to associate with environmental groups who are funded by the "big polluters." Effective environmental groups are able to transcend these ideological boundaries, depending on the situation, and work with a range of environmental groups.

This research is important for non-environmental groups such as government, industry, or academia because it shows how diverse environmental groups are in their ideology and shows how their identity evolves over time. Industry and government should recognize that environmental groups are diverse. Some environmental groups are open to collaborating with government or industry while others are more inclined to protest or sue them. Trust and getting to know individual environmental groups and group leaders is important to facilitate working together on environmental issues. Many environmental groups posses local knowledge that could be beneficial to government, industry, and academic sectors.

The Romania research showed that the *obste* have local knowledge about the needs and wants of the community but require information on forest regulations and technical aspects of their forests. The information resource is important to the *obste* and

they need to work with the forest associations and forest districts to get this technical information about their forests. Understanding that the private forest districts are a central point in information exchange may be useful to national and international nonprofits that need to distribute information to local communities as well as obtain local knowledge from these communities. This research also shows that with this new nonprofit system in Romania, trust is an issue for both the government and other nonprofits.

Even though this research consisted of two distinct studies, environmental groups in Alabama and forestry nonprofits in Romania, there were similarities in the social structure. In both the Alabama and the Romania work, the paid professional groups had technical and regulatory knowledge and were at the center of the social structure for information exchange. The groups on the periphery of the social structure were the groups with the local knowledge. Trust and getting to know the groups was a factor in information exchange in both Romania and Alabama.

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APPENDIX A

Appendix A. Alabama environmental groups sorted by main focus

Agriculture

Alabama Sustainable Agriculture Network
Heifer International
Jones Valley Urban Farm

Education

Black Freedmen's Living Historical Farm for Children
Camp McDowell Environmental Center
Legacy, Inc. Partners in Environmental Education
Project C.A.T.E. (Conservation Action Through Education)
Ruffner Mountain Nature Center

Forestry

Alabama Forest Resources Center
Alabama TREASURE Forest Association
Alabama Urban Forestry Association
Friends of Tuskegee National Forest

General

ADEM Reform Coalition
Airport Neighbors United
Alabama Coastal Foundation
Alabama Environmental Council
Alabama Environmental Council -- Jubilee Chapter
Alabama Environmental Council - Tuscaloosa Chapter
Alabama Natural Heritage Program
Alabama PALS (People Against a Littered State)
Alabama Watch
Ashurst Bar / Smith Community Organization
Bama Environmental News
Common Ground
Community Against Pollution
Concerned Citizens for Social Change
Conservation Unlimited
Earth Fest
East Central Alabama Alliance for Quality Living
Families Concerned about Nerve Gas Incineration
Friends of Ebenezer Swamp
Friends of Forever Wild

Friends of Keel Mountain
Friends of Moss Rock Preserve
Friends of Rural Alabama
Keep Athens-Limestone Beautiful
Keep Vestavia Green
Lawrence Countians for a Safe Environment
Little Lagoon Preservation Society
Lowndes Citizens United for Action
Muscle Shoals Parrot Head Club
Nature Conservancy - Alabama Chapter
PLACE - Partnership for a Livable Auburn Community
Portersville Revival Group
Project Awake
Sand Mountain Concerned Citizens
Scenic Alabama
Serving Alabama's Future Environment
Shoals Environmental Alliance
Sierra Club - Alabama Chapter
Sierra Club - Alabama Coastal Group
Sierra Club - Cahaba Group
Sierra Club - Mobile Bay Group
Sierra Club - Montgomery Group
Sierra Club - North Alabama Group
Sierra Club - Southeast Chapter
Sierra Club - West Alabama Group
SIFAT (Servants in Faith and Technology)
The Friends of a Clean and Healthy Rural Chambers
Village Creek Human and Environmental Justice Society
Village Point Foundation
Weeks Bay Reserve Foundation
Wild South

Land Trust

Alabama Land Trust
Black Warrior Cahaba River Land Trust
Coastal Land Trust, Inc.
Land Trust of East Alabama
Land Trust of Huntsville and North Alabama

Other

Alabama League of Environmental Action Voters

Birmingham Regional Transit Advocacy Group
Region 2020
Waste Reduction and Technology Transfer Foundation
WildLaw

Plants

Alabama Invasive Plant Council
Alabama Wildflower Society
Alabama Wildflower Society - Bibb County Citizens
Alabama Wildflower Society - Blanche Dean Chapter
Alabama Wildflower Society - Cullman Chapter
Alabama Wildflower Society - Huntsville Chapter
Alabama Wildflower Society - Shoals Chapter

Recreation

Alabama Hiking Trail Society
Alabama Trails Association
Appalachian Trail Club of Alabama
Auburn Outing Club
Baldwin County Trailblazers
Birmingham Canoe Club
Birmingham Grotto of the NSS
Central Alabama Grotto of the NSS
Coosa River Paddling Club
Cullman Grotto of the NSS
Huntsville Canoe Club
Huntsville Grotto
Mobile Bay Canoe and Kayak Club
Montgomery Grotto of the NSS
National Speleological Society (NSS)
Tuscaloosa Canoe and Kayak Club
Vulcan Trail Association

Water

Alabama Clean Water Partnership
Alabama Rivers Alliance
Alabama Water Watch Association
Big Escambia Creek Association
Black Warrior Riverkeeper
Cahaba River Society
Cahaba River Society - Judson College Chapter

Cahaba Watershed Project
Canyon Lakes Neighborhood Association
Choctawhatchee Riverkeeper
Coalition of Associations of Lake Martin
Coastal Conservation Association of Alabama
Committee for the Preservation of the Lake Purdy Area
Conecuh/Sepulga Watershed Alliance
Dog River Clearwater Revival
Escatawpa River Society
Fairhope Water Watch
Fellows and Advocates of the Little Cahaba, Organized
Flint River Action Team
Flint River Conservation Association
Friends of Chewacla Creek - Uphapee Watershed
Friends of Hurricane Creek
Friends of Perdido Bay
Friends of Shades Creek Watershed
Friends of Terrapin Creek
Friends of the Little Cahaba River
Friends of the Locust Fork River
Friends of the Mulberry Fork River
Friends of the Pisgah Gorge
Friends of the Tensaw River
Gadsden Area Water Watch
Lake Jordan Home Owners and Boat Owners Association
Lake Martin Resource Association
Lake Mitchell Home Owners and Boat Owners
Lake Watch of Lake Martin
Lake Wedowee Property Owners Association
Lay Lake Home Owners and Boat Owners Association
Logan Martin Lake Protection Association
Marshall County RSVP (Retired and Senior Volunteer Program)
Middle Chattahoochee River Stewards
Middle Tallapoosa River Conservation Association
Mobile Baykeeper
Neely Henry Lake Association
Northwood Lake Association
Paradise Lake Homeowners Association
Save Our Saugahatchee (SOS)
Save Our Unique Land and Streams (SOULS)
Smith Lake Civic Association

Smith Lake Environmental Preservation Committee
Society to Advance the Resources of Turkey Creek
Valley Creek Preservation Society
Weeks Bay Watershed Protective Association
Weiss Lake Improvement Association
Wilcox Friends of the River
Wolf Bay Watershed Watch

Wildlife

Alabama B.A.S.S. Federation
Alabama Ornithological Society
Alabama Waterfowl Association
Alabama Wildbird Conservation Association
Alabama Wildlife Center
Alabama Wildlife Federation
Audubon Society - Birmingham Chapter
Audubon Society - Cullman Chapter
Audubon Society - Mobile Bay Chapter
Audubon Society - Shoals Chapter
Audubon Society - Tennessee Valley Chapter
Falconers and Austringers of Alabama
Friends of Bon Secour National Wildlife Refuge
Mobile County Wildlife & Conservation Association
National Wild Turkey Federation - Alabama Chapter
North Alabama Bird Watchers Society

APPENDIX B

Appendix B. Semi-structured interview questions used in research

Attribute data questions*

When and how did the group begin?
What is the purpose or mission of the group?
Does the group belong to another group, is it a local chapter of a national organization?
What is the range of the organization?
Is the group a nonprofit?
How is the group funded?
How many members does the group have?
Does the group have paid staff members or is it all voluntary?
What are the main activities of the group?
What are the highlights or accomplishments or the organization?
What are some of the concerns of the organization?

Relational data questions

Who do you give information to?
What type of information do you give?
What method do you use to give information?
Who do you receive information from?
What type of information do you receive?
What method do you receive information?
Who do you work with?
Are there groups you would like to work with that you are not currently working with?
Are there groups that you do not work with or avoid working with?
In general, tell me about information exchange with your organization.

*Source: Simmons (1998)

APPENDIX C

Appendix C. Key code for the Alabama environmental groups

ABF	Alabama B.A.S.S. Federation
ABSCO	Ashurst Bar / Smith Community Organization
ACF	Alabama Coastal Foundation
ACWP	Alabama Clean Water Partnership
AEC	Alabama Environmental Council
AECJC	Alabama Environmental Council -- Jubilee Chapter
AECTC	Alabama Environmental Council - Tuscaloosa Chapter
AFRC	Alabama Forest Resources Center
AHTA	Alabama Hiking Trail Society
AIPC	Alabama Invasive Plant Council
ALALEAVS	Alabama League of Environmental Action Voters
ALPALS	Alabama PALS (People Against a Littered State)
ALT	Alabama Land Trust
ANHP	Alabama Natural Heritage Program
ANU	Airport Neighbors United
AOC	Auburn Outing Club
AOS	Alabama Ornithological Society
ARA	Alabama Rivers Alliance
ARC	ADEM Reform Coalition
ASAN	Alabama Sustainable Agriculture Network
ASBC	Audubon Society - Birmingham Chapter
ASCC	Audubon Society - Cullman Chapter
ASMBC	Audubon Society - Mobile Bay Chapter
ASSC	Audubon Society - Shoals Chapter
ASTVC	Audubon Society - Tennessee Valley Chapter
ATA	Alabama Trails Association
ATCA	Appalachian Trail Club of Alabama
ATFA	Alabama TREASURE Forest Association
AUFA	Alabama Urban Forestry Association
AW	Alabama Watch
AWC	Alabama Wildlife Center
AWCA	Alabama Wildbird Conservation Association
AWF	Alabama Wildlife Federation
AWFA	Alabama Waterfowl Association
AWS	Alabama Wildflower Society
AWSBCC	Alabama Wildflower Society - Bibb County Citizens
AWSBDC	Alabama Wildflower Society - Blanche Dean Chapter

AWSCC	Alabama Wildflower Society - Cullman Chapter
AWSHC	Alabama Wildflower Society - Huntsville Chapter
AWSSC	Alabama Wildflower Society - Shoals Chapter
AWWA	Alabama Water Watch Association
BCC	Birmingham Canoe Club
BCT	Baldwin County Trailblazers
BECA	Big Escambia Creek Association
BEN	Bama Environmental News
BFLHFC	Black Freedmen's Living Historical Farm for Children
BGNSS	Birmingham Grotto of the NSS
BRTAG	Birmingham Regional Transit Advocacy Group
BWCRLT	Black Warrior Cahaba River Land Trust
BWR	Black Warrior Riverkeeper
CAGN	Central Alabama Grotto of the NSS
CALM	Coalition of Associations of Lake Martin
CAP	Community Against Pollution
CCAA	Coastal Conservation Association of Alabama
CCSC	Concerned Citizens for Social Change
CG	Common Ground
CGNSS	Cullman Grotto of the NSS
CHEWUP	Friends of Chewacla Creek - Uphapee Watershed
CLNA	Canyon Lakes Neighborhood Association
CLT	Coastal Land Trust, Inc.
CMEC	Camp McDowell Environmental Center
CPLPA	Committee for the Preservation of the Lake Purdy Area
CR	Choctawhatchee Riverkeeper
CRPC	Coosa River Paddling Club
CRS	Cahaba River Society
CRSJCC	Cahaba River Society - Judson College Chapter
CSWA	Conecuh/Sepulga Watershed Alliance
CU	Conservation Unlimited
CWP	Cahaba Watershed Project
DRCR	Dog River Clearwater Revival
ECAAQL	East Central Alabama Alliance for Quality Living
EF	Earth Fest
ERS	Escatawpa River Society
FAA	Falconers and Austringers of Alabama
FALCO	Fellows and Advocates of the Little Cahaba, Organized
FBSNWR	Friends of Bon Secour National Wildlife Refuge
FCNGI	Families Concerned about Nerve Gas Incineration
FES	Friends of Ebenezer Swamp

FFW	Friends of Forever Wild
FHC	Friends of Hurricane Creek
FKM	Friends of Keel Mountain
FLFR	Friends of the Locust Fork River
FMFR	Friends of the Mulberry Fork River
FMRP	Friends of Moss Rock Preserve
FPB	Friends of Perdido Bay
FPG	Friends of the Pisgah Gorge
FRA	Friends of Rural Alabama
FRAT	Flint River Action Team
FRCA	Flint River Conservation Association
FSCW	Friends of Shades Creek Watershed
FTC	Friends of Terrapin Creek
FTCR	Friends of the Little Cahaba River
FTNF	Friends of Tuskegee National Forest
FTR	Friends of the Tensaw River
FWW	Fairhope Water Watch
GAWW	Gadsden Area Water Watch
HCC	Huntsville Canoe Club
HG	Huntsville Grotto
HI	Heifer International
JVUF	Jones Valley Urban Farm
KALB	Keep Athens-Limestone Beautiful
KVG	Keep Vestavia Green
LACUFA	Lowndes Citizens United for Action
LCFSE	Lawrence Countians for a Safe Environment
LGCY	Legacy, Inc. Partners in Environmental Education
LJHOBOA	Lake Jordan Home Owners and Boat Owners Association
LLHOBOA	Lay Lake Home Owners and Boat Owners Association
LLPS	Little Lagoon Preservation Society
LMHOBO	Lake Mitchell Home Owners and Boat Owners
LMLPA	Logan Martin Lake Protection Association
LMRA	Lake Martin Resource Association
LTEA	Land Trust of East Alabama
LTHNA	Land Trust of Huntsville and North Alabama
LWLM	Lake Watch of Lake Martin
LWPOA	Lake Wedowee Property Owners Association
MB	Mobile Baykeeper
MBCKC	Mobile Bay Canoe and Kayak Club
MCRS	Middle Chattahoochee River Stewards
MCRSVP	Marshall County RSVP

MCWCA	Mobile County Wildlife & Conservation Association
MGNSS	Montgomery Grotto of the NSS
MSPHC	Muscle Shoals Parrot Head Club
MTRCA	Middle Tallapoosa River Conservation Association
NABWS	North Alabama Bird Watchers Society
NCAC	Nature Conservancy - Alabama Chapter
NHLA	Neely Henry Lake Association
NLA	Northwood Lake Association
NSS	National Speleological Society
NWTFAC	National Wild Turkey Federation - Alabama Chapter
PA	Project Awake
PCATE	Project C.A.T.E. (Conservation Action Through Education)
PLACE	PLACE - Partnership for a Livable Auburn Community
PLHA	Paradise Lake Homeowners Association
PRG	Portersville Revival Group
RMNC	Ruffner Mountain Nature Center
RTT	Region 2020
SAFE	Serving Alabama's Future Environment
SAL	Scenic Alabama
SCAC	Sierra Club - Alabama Chapter
SCACG	Sierra Club - Alabama Coastal Group
SCCG	Sierra Club - Cahaba Group
SCMBG	Sierra Club - Mobile Bay Group
SCMG	Sierra Club - Montgomery Group
SCNAG	Sierra Club - North Alabama Group
SCSEC	Sierra Club - Southeast Chapter
SCWAG	Sierra Club - West Alabama Group
SEA	Shoals Environmental Alliance
SIFAT	SIFAT (Servants in Faith and Technology)
SLCA	Smith Lake Civic Association
SLEPC	Smith Lake Environmental Preservation Committee
SMCC	Sand Mountain Concerned Citizens
SOS	Save Our Saugahatchee (SOS)
SOULS	Save Our Unique Land and Streams (SOULS)
START	Society to Advance the Resources of Turkey Creek
TCKC	Tuscaloosa Canoe and Kayak Club
TFCHRC	The Friends of a Clean and Healthy Rural Chambers
VCHEJS	Village Creek Human and Environmental Justice Society
VCPS	Valley Creek Preservation Society
VPF	Village Point Foundation
VTA	Vulcan Trail Association

WBRF	Weeks Bay Reserve Foundation
WBWPA	Weeks Bay Watershed Protective Association
WBWW	Wolf Bay Watershed Watch
WFR	Wilcox Friends of the River
WL	WildLaw
WLIA	Weiss Lake Improvement Association
WRATT	Waste Reduction and Technology Transfer Foundation
WS	Wild South