

Collaboration as a Tool for Creating Sustainable Natural Resource Based
Economies in Rural Areas

By:

Dawn V. Godwin

Major Paper submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

MASTERS OF
URBAN AND REGIONAL PLANNING

APPROVED:

Dr. John Randolph, Chair

Dr. James Bohland

Dr. Richard Rich

May 1999

Blacksburg, Virginia

COLLABORATION AS A TOOL FOR CREATING SUSTAINABLE NATURAL RESOURCE ECONOMIES IN RURAL AREAS

DAWN GODWIN

(ABSTRACT)

The earth and its global economy are faced with many environmental considerations. Among those are limited resources such as food, energy, and water, as well as a myriad of complex issues including global warming and population growth. These environmental problems are not recent developments, and in attempting to remedy them in the past we have created solutions within the existing scientific and economic framework. However, in recent decades it has become apparent that these problems encompass more than simply science and economics, and an innovative model is supplanting traditional decision-making methods. This new model is collaborative environmental planning, and it is being used increasingly as an approach to solving resource issues and problems.

This paper begins with an introduction to the history and theoretical components of collaborative environmental planning in Chapter Two, and then defines the concept by operationalizing several elements of the model in the subsequent chapter. Chapter Four examines rural communities, specifically the issues many currently face, and how collaborative environmental planning is assisting in the revitalization of faltering resource-based economies. Chapter Five provides an in-depth look at three rural collaborative environmental planning efforts, and the uncertainties and accomplishments of each. The final chapter provides lessons that can be applied to collaborative environmental planning and sustainable rural development.

COLLABORATION AS A TOOL FOR CREATING SUSTAINABLE NATURAL RESOURCE ECONOMIES IN RURAL AREAS

CHAPTER ONE: INTRODUCTION **1**

CHAPTER TWO: THEORETICAL ASPECTS OF COLLABORATIVE ENVIRONMENTAL PLANNING AND SUSTAINABLE RURAL ECONOMIES **2**

A Brief History of Environmental Management in the U.S:	2
Established Paradigms_ Give Way to New Ideas:	2
An Emerging Paradigm: Collaborative Decision-making	3
A Scientific Approach Enhanced by Citizen Participation and Dialogue	3
Defining Sustainability- What is Meant By A "Sustainable" Rural Resource-based Economy?	5
Concluding Comments	6

CHAPTER THREE: ELEMENTS OF COLLABORATIVE ENVIRONMENTAL PLANNING **7**

Situations Which Encourage Collaborative Efforts	7
Elements Relevant To The Collaborative Planning Process	9
Engagement Issues Relevant to Collaborative Planning	9
Process Issues Relevant to Collaborative Planning	11
Outcome Issues Relevant to Collaborative Planning	13
Concluding Comments	14

CHAPTER FOUR: THE NATURE OF RURAL COMMUNITIES **16**

Environmental Collaboration and Rural Communities--A Good Match?	19
Concluding Comments	20

CHAPTER FIVE: THE PRACTICE OF COLLABORATION IN RURAL SUSTAINABLE DEVELOPMENT **22**

The Keweenaw Region of Michigan	22
The Applegate Partnership, Oregon	27
the Clinch Valley of Virginia and Tennessee	32
Comparison of Cases	36

CHAPTER SIX: CONCLUSION **39**

Lessons Learned	39
-----------------	----

CHAPTER ONE:

INTRODUCTION

Collaborative environmental planning differs from traditional problem solving methods in several critical ways. It goes beyond economics and science, incorporating values and norms. Collaborative planning views problems not as belonging to a single discipline, but rather in a holistic, multi-disciplinary manner. In addition, collaborative approaches focus on the *process* of problem solving, which means involving all stakeholders--in an effort to produce better solutions.

The collaborative process ensures that all interested parties (stakeholders) have a voice in shaping solutions. This necessitates incorporating various competing interests from the beginning, thus framing problems in a different manner. Allowing stakeholders to participate and contribute their perspectives means that problems are defined differently than if one or two "experts" look at the same situation. It means that solutions are not necessarily defined by the "experts", or agencies, but within and from the community. Currently, we see this practice manifest in many community initiatives and it seems to be spreading. State and federal agencies are participating in collaborative partnerships as well, and the idea of collaborative planning is infusing into the mainstream of policy and planning.

One area of particular interest with regards to collaborative environmental planning is rural resource-based economies. Many of these locales have many inherent features, such as strong ties to the land, that can create a successful platform from which to launch collaborative efforts. Many such communities suffer from resource depletion, loss of economic base, environmental degradation and a host of other resource issues, and face a rather unique situation. These communities depend on the environment in a way urban areas do not. For rural resource-based economies, the environment provides their livelihood and they must change the way that they interact with that environment. These areas must view environmental protection and economic development as one in the same, rather than as two irreconcilable goals. Collaborative environmental planning is using resources which exist within rural communities to create a new problem-solving framework in an effort to create self-sufficiency and positive change.

CHAPTER TWO: **THEORETICAL ASPECTS OF COLLABORATIVE ENVIRONMENTAL PLANNING AND SUSTAINABLE RURAL ECONOMIES**

TRADITIONS¹ IN ENVIRONMENTAL PLANNING & MANAGEMENT

Traditionally, environmental planning has been based predominantly on the interdisciplinary study of environmental systems, based mostly in the sciences and economics. The underlying value system has essentially been an economic market model. Some researchers believe that this existing approach does not capture the wide range of societal values and concerns about the environment and are suggesting a more multi-disciplinary approach that emphasizes long-term resource management and sustainability (Slocombe, 1993; Cortner and Moote, 1994).

A BRIEF HISTORY OF ENVIRONMENTAL MANAGEMENT IN THE U.S: ESTABLISHED PARADIGMS _ GIVE WAY TO NEW IDEAS:

The field of environmental planning emerged in the 1960's largely in response to the grassroots movements of that era. Since that time, environmental problems and planning have been considered the domain of a number of specific disciplines including ecology, engineering, planning and political science (Briassoulis, 1989).

Historically, the dominant paradigm in management of *public* lands and resources has been multiple use and sustained yield, which assume the values of human consumption to be dominant and, therefore, the goal of providing a long-term source of goods for public consumption (Cortner and Moote, 1994). While environmental awareness grew during the 1970s, public resource management agencies did respond to environmental concerns, but public outcries for species and resource protection were still viewed as "constraints to output maximization rather than the goal of resource management" (Cortner and Moote, 1994, p. 168).

The National Environmental Policy Act (NEPA), passed in 1969, constituted a hallmark in environmental planning because it advocated a more proactive and comprehensive approach to the solution of environmental issues. NEPA addressed possible impacts on the environment before action took place, rather than reacting to those impacts and trying to mitigate them.

The 1970s, in response to this new environmental awareness, saw more governmental intervention and spending, which gave rise to a number of regulatory and tax-supported federal programs. These included the Clean Water, Clean Air, and

¹ Such traditions are also referred to as *paradigms*. A paradigm can be described as the set of beliefs or truths that are accepted and underlie a given discipline. Thomas Kuhn defined the concept as follows, it: "consists of the set of values, theories, methodologies, tools, and techniques that is sanctioned and utilized by a professional community (as cited in Cortner and Moote, 1994, p. 167).

Endangered Species Acts, which are characterized as "command and control" measures (Randolph and Bauer, 1999). Several factors necessitated such an approach: environmental problems cross political or geographical boundaries, the sources of environmental problems often lie outside of the affected area, and the costs of dealing with environmental issues are often so high that many offenders would only correct situations if forced to. "Command and control" measures did assist in protecting the environment, but actualized many administrative and legal costs.

The 1980s saw a more conservative federal administration. Increased budget deficits and a move toward deregulation and private property rights meant that past remedies and methods were no longer applicable (Randolph and Bauer, 1999). By the end of that decade the increased activity of non-governmental entities, as well as an increase in mediation and other alternative dispute resolution techniques, provided the foundation for heightened public participation in environmental management (Randolph and Bauer, 1999).

Briassoulis (1989) describes why traditional planning approaches-- incremental, adaptive, and others do not work with regard to environmental issues. "Environmental problems are metaproblems (Cartwright, as cited in Briassoulis, 1989), that is to say, problems described by a large number of variables, many of which are difficult to explain" (p. 390). Problems of this nature are too complex to be handled by a "pure" approach, a synthesis must be used.

AN EMERGING PARADIGM: COLLABORATIVE DECISION-MAKING A SCIENTIFIC APPROACH ENHANCED BY CITIZEN PARTICIPATION AND DIALOGUE

New approaches are emerging that combine interdisciplinary science, ecological economics, integration of biophysical and social sciences, and perhaps most important, collaborative processes which aim to integrate a wide range of values and perspectives in environmental management.

It is evident that many people are beginning to embrace new ways of handling environmental problems (Behan, 1990; Burton, 1988; Carins & Crawford, 1991; Eriksen, 1990; Margerum, 1996, Margerum, 1997; Mitchell & Hollick, 1993; Schrubsole, 1990, as cited in Margerum, 1999; Slocombe, 1993; Cortner and Moote, 1994; Randolph & Bauer 1999), but there is still much discussion about what the new paradigm in environmental planning and management will look like. Cortner and Moote (1994) assert that: "While a new paradigm has yet to be accepted, the emerging paradigm appears to be based on two principles: ecosystem management and collaborative decision-making" (p. 167).

The ecosystem approach, focuses on a new *scientific* framework from which to examine environmental problems, it focuses on an expanded definition of ecosystem. Similarly, Bioregionalism is the political, social, and managerial approach which incorporates humans and their environment within the same planning model, rather than belonging to separate ecosystems.

Collaborative environmental planning is the broader *knowledge and value* framework from which to examine environmental problems. Not only are issues studied

from this new scientific perspective, non-scientific considerations are paramount as well. These components reflect a new model for environmental decision-making.

COLLABORATIVE PLANNING

Simply defined: "Collaboration is a process through which 'parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible (Gray, as cited in Margerum, 1999, p. 181).

London (1995) asserts that collaboration must be democratic and inclusive, in addition it must be horizontally structured; the process must include all parties who have a stake in the problem; it requires building 'social capital'; the networks and norms of trust and reciprocity that promote civic cooperation.

It is evident that collaborative decision-making is no small task, however it is being applied to environmental planning and management (Innes, Gruber, Neuman, & Thompson, 1994; Selin & Chavez, 1995, as cited in Margerum, 1999). It is complex process, consuming of time and resources, and often involving intense conflict. However, as Collins and Dukes (1998) emphasize : "Conflict is a natural part of community life. It can give rise to productive dialogue, increased understanding among community members, problem resolution, and improvements in community life." This revelation about conflict illustrates the power of collaboration as a problem solving tool. It can take that inherent conflict and create a dialogue, which in turn produces new perspectives for examining and solving problems.

It is true, that conflict, while an inevitable part of collaborative environmental planning is unpredictable. In some instances, conflict may help decision-making efforts, while in others it may hinder them. Porter and Salvesen (1995) found that: "Collaborative planning generally is undertaken in circumstances where concerns have flared into conflicts and attitudes have ripened into mind-sets, virtually guaranteeing a difficult and lengthy consensus-building process (p. 275)." In addition, politics may play a role in the decision-making process, and may be an insurmountable obstacle to collaborative efforts. However, the results--as illustrated with the case studies in Part II--can be positive. As Portner and Salvesen concluded: "Collaborative planning is worth the effort if it succeeds in reconciling otherwise intractable environmental and development issues (p. 275)."

There are several components that seem to be present in collaborative efforts which have been successful in achieving their goals. These factors affecting collaborative environmental planning are highlighted in the following chapter. The difficulty lies in determining which of these factors are present in a community, and which are necessary for that community to solve its problems collaboratively.

DEFINING SUSTAINABILITY- WHAT IS MEANT BY A "SUSTAINABLE" RURAL RESOURCE-BASED ECONOMY?

There are many definitions for sustainability, but the most succinct is put forth by the Bruntland Commission (also known as the World Commission on Environment and Development, WCED) in 1988: "[meeting] the needs of the present without compromising the ability of future generations to meet their own needs."

Sustainability can be characterized as a way of planning, managing, and living that strives to achieve five basic objectives, which can be characterized as the five "E's"--economics, environment, social equity, political engagement, and eternity (the future) (Randolph, personal communication, 1999). Planning for sustainability takes all of these facets of community into account--the political system, economic system, social system and the environment that is common to all of them in an effort to plan for the future. While accomplishing all five objectives seems to be a daunting task, they are necessary components in achieving sustainability. This concept of sustainability is adopted by a wide range of interest groups from environmental to social. However, each group may operationalize the notion in a different manner, leading to conflict and controversy.

This paper examines collaboration as an approach for rural areas in planning for sustainability, which is a goal. All of the case studies discussed involve rural areas that have historically depended on natural resources as an economic base, and are trying to switch to more sustainable economic development.

Rural areas that rely on resources in this way sometimes face many long-term problems. There is often an underlying conflict between the economy and the environment. Unfortunately, in some cases dependence creates a situation where the environment is compromised to sustain and strengthen the economy. Areas which depend on timber or coal extraction are often left with depleted resource bases and degraded environmental qualities when the extracting industry leaves. There is nothing to take the place of the resource industry, the citizens know no other way of life, and the area begins to decline (Power, 1996; The Nature Conservancy, 1996).

Many of these rural areas are looking for new ways to strengthen their economies, not through exploiting the environment, but by embracing it and diversifying economic activities associated with it. The Nature Conservancy describes how these economies function: "It has many sources of income--agriculture, forestry, manufacturing, tourism, crafts. If any one sector is ailing, others can sustain the region" (The Nature Conservancy, www, 1996). Industries such as eco-tourism and environmentally friendly resource harvesting are providing a way to create more sustainable rural economies. Such activity involves creating industry and enterprises that will bring money into the community, rather than depending on the extraction of resources and capital from the community. This in turn, protects the environment, and perhaps most importantly creates a sense of self-dependence which allows communities to solve future problems.

In short, as applied in this paper, a sustainable rural resource based economy is one that maintains a healthy economy on a long-term basis, protects the environment and natural resources, and does this in a self-sufficient manner.

CONCLUDING COMMENTS

It is evident that there is a new paradigm emerging in environmental management and planning--a paradigm which sees man and the environment not as separate entities, but forces acting upon each other in an interrelated, communal manner. This shift involves several different ways of thinking. First, environmental issues should be examined from a more holistic scientific approach; man and his natural environment as part of the same ecosystem, rather than man dominating his environment. Second science and economics serve only as *part* of the decision-making process, not a basis for decision-making. In addition, we must switch from relying on the existing framework for decision-making and problem solving to incorporating innovative methods, such as collaboration and joint decision-making. Finally, preserving natural resources for the future must become the principal that guides resource management, rather than short term use. Sustainability should be a goal with respect to rural environmental management and planning, and ecosystem approaches combined with shared decision-making can be an effective way of achieving that goal.

The next chapter discusses how these different ways of thinking manifest themselves in the model of collaborative environmental planning.

CHAPTER THREE: **ELEMENTS OF COLLABORATIVE ENVIRONMENTAL PLANNING**

SITUATIONS WHICH ENCOURAGE COLLABORATIVE EFFORTS

Collaborative planning occurs in many places for many different reasons. However, there seem to be three circumstances which repeatedly emerge in the case study literature as catalysts which encourage collaborative environmental planning. These include: having a commonly perceived problem or threat, having some outside stimulus--such as a non-profit--which encourages action, or having some person or group within the community who has a vision for change.

These situations explain why collaborative efforts start in some places and not in others, as well as why collaborative planning is successful in some places while it fails in others.

The first situation, having a commonly perceived problem or threat, is demonstrated in the case study of the Keweenaw Region. The citizens united in an effort to stop the threatened lowering of water quality standards, a common threat to their way of life.

In the case of the Applegate Partnership, there were two men from diametrically opposed groups who had a vision of how the watershed should be managed and how working relationships between stakeholders should function--they shared a vision of the way things should be and acted upon that vision to create the partnership.

Finally, in the case of the Clinch Valley Sustainable Development Initiative, there seemed to be an outside force--in the form of The Nature Conservancy--which acted to promote change through collaboration in that region.

Collaborative environmental planning, by nature, is unique to each area where the model is used. In fact, there is one characteristic of collaborative environmental planning which I found generalizable to all efforts--collaboration is a place-based effort which relies heavily on what has been termed *shared capital* (Innes, Gruber, Neuman, & Thompson, 1994 as cited in Margerum, 1999)..

In addition to these catalysts, There is one underlying characteristic that seems to be a necessary precursor for collaborative planning, a sense of community.

The idea of *sense of community* is very hard to operationalize. In the context of this paper, I define it as an attachment to the place of residence which gives citizens a feeling of belonging and devotion to their community, and in turn makes them inclined to participate actively in that community. This notion should be distinguished from the term *community*, which is a social, behavioral construct. *Sense of community* is an internal sentimentality that gives citizens the disposition to take action on behalf of the whole community.

Sense of community serves as the foundation for what Innes et al. (1994) refer to as *shared capital*, including;" social capital in the form of trust, norms, and networks; intellectual capital in the form of agreed upon facts, shared definitions, and

mutual understanding; and, to varying degrees, political capital in the form of alliances and agreements that can improve the possibility of implementation" (Margerum, 1999, p. 184).. Whereas *sense of community* refers to a personal relationship, *shared capital* refers to interpersonal relationships within the community. *Shared capital* implies a sense of shared ownership. It refers to those resources such as community, public trust, security, cooperation, reciprocity and equity, within the community. These shared resources are built through the process of collaboration and dialogue, and can be relied upon and can grow in the future, thus the name *capital*.

Without *shared capital*, it is hard to bring diverse interests to the table. When stakeholders are invested in their community, they can come together to solve problems. When they see it as just a place to live or work, they have no *sense of community*, cannot build or strengthen *shared capital*, and collaboration will be difficult.

When referring, then, to the *sense of community* present in these rural areas, I am speaking of those ties to place which create a close-knit citizenry, in which people rely on each other and have an interest in their community which goes beyond simply residential ties. This attachment serves as a foundation for building and strengthening *shared capital* in the form of networks and resources, which provide the support and resources that allow collaboration and implementation to work.

This *sense of community* was seemed to be present in all three communities examined in this paper. Interest in the community, and what happens to it in the future, encourages citizens to become active participants in problem solving, and helps them build shared capital.

ELEMENTS RELEVANT TO COLLABORATIVE PLANNING

The collaborative process is an iterative one; there is no formula or linear progression of events. There are however, some elements that seem to be relevant to collaborative efforts. These elements are not mutually exclusive, but instead, each encompasses the others. In addition, there may be other unique factors that affect collaborative planning. The following discussion does not attempt to provide a complete, theoretical conceptualization of collaboration, but rather to discuss elements of the approach which manifested themselves in the three case studies contained in Chapter Five.

These elements have been divided into three relatively broad categories: engagement issues, process issues, and outcome issues. Engagement includes those elements-- stakeholder participation, learning through collaboration, and capacity building--which involve developing relationships. These elements seemed to be most critical to the success of the collaborative efforts examined in the case studies.

The next category, process issues, includes goals and vision, effective leadership and organization, and building partnerships. These are elements which involve the institutions and arrangements necessary to engage in collaborative planning.

Finally, there are outcome issues. This group includes elements such as innovative solutions and measuring success, which focus on the outcomes of the collaborative planning effort.

Each of the three groups is discussed briefly in this chapter. It seemed evident from the case studies that developing relationships--the engagement issues--were very important in all three cases. However, it is important to point out that the importance of each element does vary from case to case, and in different stages of the planning process. For example, building partnerships--a process issue--seemed to play an important role in the *implementation* of the collaborative planning efforts in the case studies.

ENGAGEMENT ISSUES RELEVANT TO COLLABORATIVE PLANNING

Stakeholder Involvement

The cornerstone of collaborative environmental planning is engagement--involving numerous groups and "stakeholders" to address problems in a bottom up manner. Hierarchies have no place in collaboration, it is a discourse among stakeholders with differing interests, who seek a common ground upon which to take action.

Stakeholders are defined as any people or groups who have a direct interest in the issue or problem that is being studied. Stakeholders often include private citizens, governmental entities, community service organizations, student groups at schools and universities, conservation groups, industry, businesses, and anyone else with an interest in the issue. Stakeholders provide insight and diversity to the situation, and ensure that all the possible voices will be heard and considered. Collaborative planning efforts should attempt to involve all stakeholders when seeking to manage resources, leaving any one out may cause the process to be unsuccessful.

Identifying stakeholders and getting them involved in the process early is critical to the success of the collaborative effort. "Engaging people from all key stakeholder groups as soon as possible produces many benefits. People are much more likely to work together

successfully if they are involved from the beginning rather than after decisions are made" (EPA, 1997, p. 2-5).

Another element of stakeholder involvement should be authority and self-governance. It is important that stakeholders have authority to make decisions and act upon those decisions. Stakeholders need to feel that their decisions will be taken seriously. In addition, there should be a sharing of power, all stakeholders need equal access and equal voice in the process. Finally, everyone should get credit for successes and take credit for failures as a group. This sharing of power, authority, and outcomes invests stakeholders in the process, producing more support and better results.

Involving stakeholders, however, is sometimes easier said than done. Groups or citizens who have opposing views may be reluctant to sit down at the table together. The key is having stakeholders realize that although they may have different opinions or interests, they are working toward understanding each other and finding a goal that everyone can support.

Developing trust should be an integral part of group deliberation and discourse. Stakeholders must trust each other and feel that everyone involved is operating for the good of the community, not pursuing a private agenda. It allows those involved to engage in another important factor affecting collaborative environmental planning, collaborative learning.

Learning through Collaboration

Building trust may take time and effort, but it is essential to the process of learning through collaboration. Learning through collaboration can be defined as stakeholders being able--through trust, shared responsibility, and discourse--to move beyond initial perceptions, learn from each other, and to often to discern commonalities between their differing viewpoints. This learning process allows problems to be framed differently, and new solutions to emerge. "Articulating perceptions and hidden agendas can lead to identification of shared values, a new problem statement, and creative solutions" (Randolph and Bauer, 1999, p. 9).

Learning through collaboration played a major role in the Applegate Partnership, which is discussed in Chapter Five. Two groups, environmentalists and timber industry representatives had been at odds for years. Engaging in dialogue allowed the groups to learn that they were both concerned about the same thing--forest ecosystem health. This learning process allowed them to clear up misunderstandings and move beyond initial perceptions to work on a successful collaborative forest management plan. Stakeholder involvement and this process of collaborative learning form the basis from which the process can move into implementation. This involvement revolves around developing goals and solutions, which is often a very complex task. It is important, however, that the stakeholders and the community should develop this vision, so that the effort will achieve results that (1) will be mutually beneficial, and (2) that everyone can support. Stakeholder participation does not always produce consensus, but it provides everyone involved with an opportunity to voice opinions, gain a better understanding of the issue, and examine the issues from differing perspectives.

Community Resources-Capacity Building

The success of any collaborative effort depends upon the community being able to mobilize resources to tackle issues and solve problems. This is often true in rural communities, which may not have the financial or technical resources of their urban

counterparts. Capacity building is defined as "increasing the ability of people and institutions to do what is required of them" (Newlands, as cited in Murray, 1996, p. 21).

Rural communities, as discussed in the next section, have a unique set of resources to build upon in problem solving--the most important resource being citizens (Stokes, et al, 1997). Organizing these citizens, and working to realize and mobilize other resources, sometimes requires the help of an outside facilitator, someone who may be able to recognize strengths within the community and help focus the citizens around those strengths. It may be a time consuming process, but allowing the community to solve its own problems will hopefully build a successful collaborative planning effort.

Communities see many benefits when engaging in capacity building and these have been summarized by Luther and Wall (as cited in Murray, 1996, p. 22):

1. Evidence of strategic thinking by community leaders, which draws upon historical strengths and an appreciation of new opportunities.
2. The presence of an entrepreneurial spirit, which is prepared to be creative in community problem solving.
3. An orientation towards positive attitudes and action, based on a confidence that local people can make a better future for themselves.
4. Evidence of a planned program for community improvement, which may include responding to the challenge of economic development through organized action.
5. A thoughtful approach to the future which is concerned with wider quality of life issues in the local economy.

Capacity building is important because it allows communities to become more self-sufficient. Often, when communities become aware of what they can do, they become more proactive in their efforts. They may realize they can indeed resolve some of the issues that seemed too daunting before they came together and began to organize.

PROCESS ISSUES RELEVANT TO COLLABORATIVE PLANNING

A Unified Vision and Goals

Developing a vision of where stakeholders want to go with the collaborative process should be another very important step. Stokes, Watson, and Mastran (1997) emphasize that identifying values and concerns a primary task in developing a community vision: "Community change is inevitable, but with a clear vision, citizen groups can guide change: with a vision, communities can take positive action instead of reacting to outside forces" (p. 8).

Visioning and goal setting are complex tasks which necessarily begin with a definition of the problem at hand. This involves determining the type of problem. Miller (1994) distinguishes two different types of problems that exist in managing rural natural resources: (1) problems that call for action, and (2) intricate unsettled questions. Figuring out what type of problem exists will allow you to choose a framework for solving that problem. Once the problem has been defined, it is necessary to establish a vision and goals to guide the collaborative problem.

The vision defines what the community will look like in the future. For this reason, it is especially important that all stakeholders be involved in the visioning process. The product should be a picture of the future that everyone can support and work toward.

"Goals link the vision or mission of an organization with its activities or program" (Stokes, et al, p.72). As part of goal setting, a way to measure achievement must be established. It is important that all stakeholders have input on how to measure achievement. This should be done early so that there is some level of control and direction to the collaborative process, and so that everyone involved is working from uniform set of assumptions about what should be achieved.

The way to work toward established goals is to involve stakeholders in setting out objectives. "Objectives are the specific outcomes that together will meet a group's goals" (p. 72). Stokes et al emphasize that it is critical that: "Objectives should be realistic and precise and help a group to measure its effectiveness in meeting its goals" (p. 72).

Another concept associated with goal setting is developing indicators or benchmarks. These measures allow the community to monitor the progress continually. Environmental indicators are defined as a level or some value derived from that level (through an index for example): "which provides managerially significant information about patterns or trends (changes) in the state of the environment, in human activities that affect or are affected by the environment, or about relationships among such variables" (EPA, 1995). Benchmarks are similar to indicators in that they set some level of achievement which can be monitored and quantified or measured.

This process of reaching consensus to identify a vision, goals, and objectives not only requires stakeholder involvement, but should also rely upon effective leadership and organization.

Effective Leadership & Organization

"Leaders who are most effective in addressing public issues are those who have the credibility to bring together the right people to create visions and solve problems. Collaborative leadership is necessary in today's world where public issues are increasingly more complex and cannot be solved by traditional community problem-solving methods" (National Civic League, 1998).

Collaborative efforts necessarily involve a wide range of organizations and groups, and therefore require leadership and facilitation to act. Murray (1996) describes leadership as the "catalyst for collaboration" (p. 26). The role of leadership in this context is not to make decisions or to direct the action of the group. The leaders in collaborative efforts should serve to facilitate and guide, to ensure that every stakeholder has a voice, that the process has been defined and goals established, and to help the community identify and use its existing resources.

Leadership may come from within the community or from outside, but it is important that the leaders have knowledge of the community, and the issues that it faces. Stakeholders need to feel included in the decision making, and confident that their leader is also pursuing similar goals.

Organization is another important component of successful collaborative efforts, which by nature involve wide ranging interests. Collaboration does not always work smoothly with large groups, so organization should be a critical part of ensuring a smoother process. Organization is also necessary to ensure representation of all stakeholders and not just those interests who may already be established and active. Finally organization helps in setting up the institutional mechanisms

necessary to continue the collaborative process--task forces, study groups and other structures that may be important in the process, but do not already exist.

Building Partnerships

Another critical element of collaborative planning efforts should be creating sound partnerships both within and outside of communities. Partnerships between public entities, private entities and citizen groups. There are two basic types of partnerships: (1) partnerships aimed at resolving conflicts (2) those designed to develop and promote shared visions of the future (London, 1995).

The first type, conflict resolution partnerships, are common when there is some immediate threat or problem that needs to be addressed. These types of partnerships are more short term, they form to solve a specific problem and disband once the problem is solved. The Applegate Partnership, discussed in Chapter Five began in this way.

The second type, those collaborative partnerships that form to develop and promote a common vision, tend to be ongoing processes. They may develop initially from a conflict, as in the case studies discussed in this paper. The two other cases examined in this paper--the Clinch Valley Sustainable Development Initiative (CVSDI) and Friends of the Land of Keweenaw (FOLK)--can be characterized as this type of partnership.

Partnerships serve many functions including exchange of resources, management strategies, information and other resources. In addition, partnerships can also form beneficial networks and create new systems. Murray (1996) asserts that: "Collaboration tends to reverse agency and community value systems which traditionally are based on independence and competition" (p. 27). For example, a community may have grand ideas but no resources to fund them, or carry them out on a large scale. Governmental and private entities may have the capital or resources necessary to make a project happen, but need the expertise of local groups who are familiar with local problems and can better solve them.

OUTCOME ISSUES RELEVANT TO COLLABORATIVE PLANNING

Innovative Solutions

Another element that often occurs within this evolving model of collaborative decision-making and management is examining new solutions. Looking at alternatives that lie outside existing statutory and regulatory structures, and creating new institutions and other innovative ways of solving environmental issues.

A feature of collaborative environmental planning is that it often takes a more proactive, and innovative approach to solving environmental problems and issues than traditional environmental planning. For example, the Quincy library group, a grassroots group in California dedicated to protecting the watershed of Plumas County, drafted its own management plan for surrounding forest areas and presented it to the Forest Service in 1993. Funding was eventually approved by that agency to implement the group's proposal. In 1997 the Quincy Library Group bill (HR 858/S 1028) was introduced by the group, proposing that the plan be tried for five years.

This example illustrates the shift to more proactive approaches designed locally to solve environmental problems. As this shift becomes more mainstream many questions will be raised, and many remain unanswered.

Measuring Success

Another issue is measuring the success of collaborative efforts. There are temporal components. How can we measure whether or not efforts are going to be successful and sustainable in the future? How long should these processes take--one year, ten years--how can we know how long they *should* take? In some cases, outcomes may not be quantifiable for a long period of time.

There is also the question of *process* versus outcome. Is a collaborative effort to be considered successful if stakeholders are involved, and collaboration takes place--even if nothing comes of it? How do you account for collaborative efforts which produced an outcome, but it was an inappropriate solution?

As discussed earlier, setting up benchmarks and indicators is one way to quantify successes in collaborative efforts. However, there may be a need for more quantifiable success--to justify funding for example.

Measuring success is a difficult process, and there are many questions that remain with regard to this issue.

CONCLUDING COMMENTS

Collaborative environmental planning involves people coming together to act collectively in addressing problems. The elements presented in this section were important parts of the collaborative efforts examined in Chapter Five, and provide a basic framework from which to begin to examine such collaborative environmental planning efforts in rural areas.

As discussed at the beginning of the chapter, collaborative planning efforts begin for a number of reasons. In addition, there are a number of elements that are relevant to collaborative planning, which have been discussed in this chapter. These elements take on varying levels of importance in collaborative planning efforts, or may not be present at all. However, they provide a framework from which to examine the rural collaborative case studies in Chapter Five. Clearly, it is difficult to predict whether such an approach will be successful in other rural communities.

There are also many issues that need to be addressed before this collaborative model becomes an accepted practice. One such issue is organization--how to handle the new structures that are created to implement decisions. How to treat citizen groups drafting legislation, the Quincy Library Group, for example? What changes in existing legal, legislative and regulatory structures will be necessary to handle collaborative situations between NGOs, governmental agencies, and private citizens? What sort of power should these collaborative entities have?

Questions raised by collaborative environmental planning are interesting and hard to answer because each collaborative initiative is different. It remains to be seen how these questions will be answered.

Table One provides the framework from which to compare the case studies in Chapter Five. These factors affecting collaborative efforts were present in all three cases examined in this paper.

Table 1: Elements of Collaborative Efforts

	Elements of Collaborative Efforts	
Engagement Issues	Stakeholder Participation	Who was involved, to what extent? Were all stakeholders represented? Did stakeholders make decisions? Was there strong community support?
	Collaborative Learning	Did parties engage in dialogue? Was there an increased sense of respect and understanding?
	Community Resources/Capacity Building	Was the community able to mobilize assets and resources? Where were they successful? Where did they fall short?
Process Issues	Unified Vision/Goals	How were goals defined? What were the goals? Was there common ground and agreement, or was it difficult to establish goals?
	Leadership & Organization	Who were the leaders? How was the collaborative effort organized?
	Partnerships	What types of partnerships were involved? Did they play a major or minor role?
Outcome Issues	Innovative Solutions	What innovative solutions did the collaborative effort produce?
	Measuring Success	How was success measured? Was the collaborative effort successful?

CHAPTER FOUR:

THE NATURE OF RURAL COMMUNITIES

ISSUES FACING RURAL AREAS TODAY

In 1992 the Southern Rural Development Center hosted a conference entitled, "21st Century Survival of Rural America" in Jackson, Mississippi. There were 3 basic objectives of the conference: (1) to provide information regarding rural development; (2) to provide interaction between public and private entities; and (3) to identify promising sources of jobs and income to the rural regions of the United States. A needs assessment and several round table discussions were conducted during the conference and participants (including public officials, rural development specialists, and land grant university faculty) were asked to rank several rural development issues in order of importance. Table Two indicates the responses of the participants:

Table 2: Ranking Importance of Rural Issues

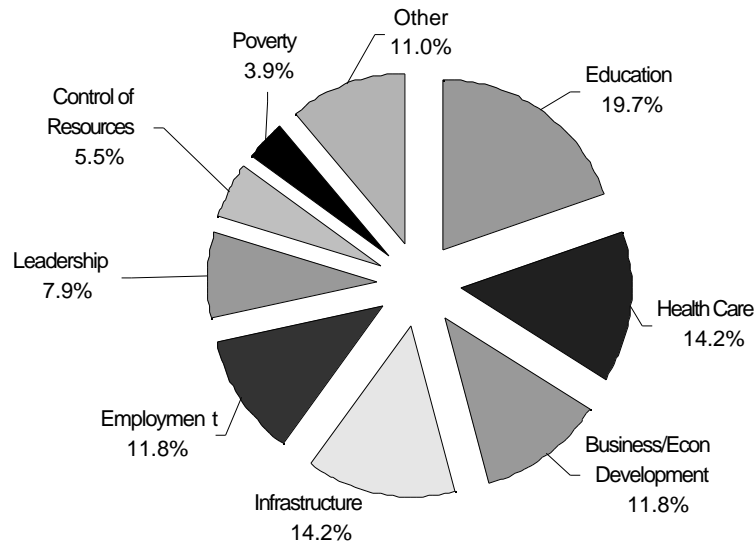
Issue	Very Important	Somewhat Important	Not Important
Financing Sources	19	4	--
Infrastructure (bridges, roads, sewer, water)	16	7	--
Health Care	17	6	--
Telecommunications	2	18	3
Job Creation	19	4	--
Local Capacity /Leadership Development	17	6	--
Environmental Concerns	8	14	1
Natural Resource Development	5	17	1
Education, Training	20	3	--
Poverty	8	14	1
Other: Daycare, Crime/Drugs, Housing, Exporting, Agricultural Development			

Source: Southern Rural Development Center, 1992

In addition, when asked to rank the top three problems facing rural residents, participants consistently offered the following responses: education, job creation, local capacity, infrastructure, health care, and finance (SRDC, 1992). Graph 1 illustrates those findings.

Graph 1:

What Are the Three Most Critical Problems in Respondents State?



The percentages represent the relative frequency with which each of the problems was mentioned as a survey response. The survey respondents were state extension public policy and rural development specialists from each state. Source: Southern Rural Development Center, 1992.

It becomes obvious that rural areas perceive a wide ranging set of challenges today. It is interesting to note also is that environmental issues are not of critical importance to these particular rural respondents. However, they are incorporated indirectly in several of the areas--infrastructure, employment, and health for example--mentioned as problematic by survey respondents.

While rural communities do perceive similar problems, there are two distinct issues that emerge almost at opposite ends of the spectrum. One difficulty that some rural areas face is the struggle to accommodate new growth. The other quandary that some areas grapple with is economic stagnation and decline caused by over-reliance on natural resource extraction or agriculture (or perhaps reliance on a single manufacturer for jobs).

The first problem, accommodating new growth, plays out differently in rural areas. Often when people move into such areas, they necessarily have to "urbanize" to accommodate the growth. In addition, the addition of second home growth (which seems to be an issue in some rural areas) is not economically beneficial, because it requires additional services, but does not contribute to the tax base that must support this new development. These issues illustrates but a few of the myriad problems that face rural areas dealing with growth. It comes down to the fact that rural areas sometimes lack the resources, capital, infrastructure and economic base necessary to create sustainable communities.

The second problem is this: "With improvements in the technology of resource extraction, agricultural economies of scale, competition from foreign suppliers costs of pollution abatement, and resource depletion, employment in natural resource-based,

extractive industries has seriously declined" (Stokes, Watson & Mastran, 1997, p. 15). In addition, many rural areas rely on the existence of one or two big manufacturers in their county to provide jobs. As mentioned in Table Three, the decrease of manufacturing jobs in rural areas is expected to continue as cheaper labor in global markets lures companies away from the U.S. In addition, with technology and the resultant economics of harvesting resources making small private farms and timber producers obsolete, it is clear something has to be done to steady economies that were once based on natural resources.

Rural areas also grapple with problems such as poverty, jobs, and education. The Rural Policy Research Institute published the following statistics illustrating characteristics of rural areas and recent trends in those areas in 1988:

Table 3: Selected Statistics Describing Characteristics and Trends of Rural America

- ◆ As a whole, America's rural population has lower incomes, lower employment levels, and higher poverty levels than urban and suburban America.
- ◆ 23% of all non-metropolitan counties are considered persistently poor counties, because 20% or more of the population in these counties has been living in poverty from 1960-1990.
- ◆ In 1990, nearly 2/3 of rural poor families (64.6%) had at least one family member working, suggesting a large number of "working poor" in rural areas.
- ◆ Rural areas have historically depended upon farming and natural resource extraction for their economic livelihood. While the majority of this employment takes place in rural areas, there is only a small percentage of people in rural areas who make their living this way.
- ◆ Employment in farming made up 7.6% of all non-metropolitan employment in 1990. Many of those workers employed in farming are part-time farmers, and maintain a second job for supplemental income.
- ◆ In 1990 94% of metropolitan workers had a high school diploma, compared with 67% of non-metropolitan workers.
- ◆ In 1990, 21.6% of the non-metropolitan workforce was employed in services, 17.1% employed in manufacturing, with retail sales (a growing sector) comprising 16.5% of the non-metropolitan workforce.
- ◆ With increasing competition from low wage global labor markets, it is likely that manufacturing employment in non-metropolitan areas will continue to decrease.

Source: Rural Policy Research Institute, 1998

It becomes evident when looking at the statistics on rural employment that the nature of rural communities is changing. There is less agriculture and manufacturing, with services and retail on the increase. This seems to indicate that the focus is shifting from commodities leaving rural areas in the form of crops and manufactured goods, to increases in sectors like tourism and recreation. Such change necessitates that how rural areas handle their problems must change as well, and collaborative environmental planning efforts seem to be a positive way to do this.

ENVIRONMENTAL COLLABORATION AND RURAL COMMUNITIES--A GOOD MATCH?

There appear to be several reasons that collaborative efforts can be successful in rural areas. First, and most critical is the idea that rural areas seem to embody the *sense of community* defined earlier. Rural economic conditions--the fact that many people in a community all make a living from the same industry, serve to solidify the sense of community. Often many generations of the same family reside in the area, strengthening ties to that area. Residents often have direct attachment to the land, making a living from it and strengthening the bond. These factors create an investment and interest in what happens to the community, which means people may be more likely to work together in solving problems.

Many issues of concern in rural areas are environmental in nature. They range from having safe drinking water, to solid waste disposal, to destructive resource harvesting. The view of nature as the supplier of unlimited natural resources is fading. Concerns over diminishing supplies and degradation of environmental quality are bringing about a major shift in the way natural resources are managed, and many people and institutions now recognize that a more holistic or sustainable approach to natural resources management is necessary. Environmental problems in turn, create many of the economic problems that face rural areas

A second characteristic of rural communities that may be an important component of collaborative planning efforts is a sense of self-reliance. Sargent, Lusk, Rivera, and Varela (1991) in their work describe a process termed Rural Environmental Planning (REP). There are four basic assumptions underlying REP that emphasize this self reliance as an important component in planning for rural areas.

Table 4: Assumptions Underlying Rural Environmental Planning (REP)

1. Rural people place a high value on self-reliance and self-determination. They have experience with techniques for cultural and economic survival.
2. Rural people value cooperation as a guide to problem solving. This attitude has evolved from generations of experience in rural living, where cooperation is a major tool of survival and community maintenance.
3. Land ownership is valued not just for its market value but also for sustaining a way of life. Carrying capacity is important, it illustrates that uses may be different, but that physical and natural resources are finite and can bear only so much use.
4. A self-reliant community possesses the knowledge, skills, resources, and vision to identify changing conditions, locate appropriate technical assistance, and initiate actions in a manner that conserves the rural environment and distributes benefits in an equitable manner.

Source: Sargent, Lusk, Rivera, and Varela, 1991, p.5.

One economic development strategy for rural communities that Stokes (1997) characterizes is creating a sense of self-development, "which involves local organizations and local government, invests local resources, relies on local goods and services, and results

in an activity which is locally controlled--[and] is the most sustainable in the long run." (p. 257). This idea of self-development entails not relying on outside forces such as drawing in a big industry, but rather creating industry within the rural community. One way to accomplish this is through what are called "value added industries", which are defined as: "the difference between the final value of products and the materials and inputs used to manufacture them" (USDA Economic Research Service, 1998, p.5). Such industries are becoming an increasingly utilized method of rural revitalization, because they have the potential to bring additional economic growth to areas with farm and forest resources. For example, simply selling raw timber brings some economic gain. However, selling it to a local processing plant producing finished lumber creates jobs, and brings more economic benefit to the community, and so on. One characteristic of value-added industries is that they tend to buy local materials. The Economic Research Service estimates that on average, about 48% of rural value-added plants buy at least half their materials locally. "A manufacturing plant that buys its materials locally provides existing businesses and farms with a nearby customer and may attract new businesses to locate in the community" (USDA ERS, p.23). This type of dependence on the community itself, rather than factors outside the community is important to the revitalization of rural communities.

It is evident that many rural communities, as they become more reliant on themselves economically, are creating a framework which encourages them to rely on themselves to solve other problems--a tenet of collaborative environmental planning.

CONCLUDING COMMENTS

Many rural communities today face unique challenges. As Flora, et al (1992, p. 13) emphasize in their work: "Many are shifting away from resource economies that depend on extraction of natural resources, finding niches within the broader spectrum of economic activity". There are three basic factors that make collaboration a beneficial method to use in solving environmental problems and creating a more sustainable way of life in rural areas.

First, rural communities are realizing (as are other communities everywhere), that protecting environmental resources for the future is a very real concern and that management efforts need to take a more proactive, holistic and sustainable approach. Included in this paradigm shift is a realization that collaboration is an appropriate management strategy to address environmental issues.

Second, the sense of place, or attachment to community inherent in rural areas discussed in this section engenders many of the factors that contribute to collaborative planning processes. Citizens (stakeholders) are much more likely to become involved if they feel this is their place and they have some interest in what happens. In addition, rural communities face problems that allow stakeholders to form broad-based goals that are easy to agree upon--creating a sustainable economy for example.

Finally, the concept of self-development that some rural areas are working toward will necessarily involve building capacity and recognizing community resources. Perhaps this will give rise to better leadership and organization in rural areas. This concept establishes a framework of self-reliance which lends itself well to collaborative planning processes.

It is evident that rural areas have a number of complex issues to deal with, and the protection of natural resources and the environment seems to be low on the list of priorities. However, the environment plays a part in most of the issues that are perceived as problematic

in rural places. These areas need to begin to use those resources to build sustainable economies, and to incorporate the environment into rural development and planning. As the case studies in Chapter Five illustrate, this has the potential to be a very positive combination.

CHAPTER FIVE: **THE PRACTICE OF COLLABORATION IN RURAL SUSTAINABLE DEVELOPMENT**

RURAL AREAS DEPENDENT ON RESOURCES COLLABORATE TO CREATE MORE SUSTAINABLE ECONOMIES

The following section is an assessment of three case studies in collaborative environmental planning. All three cases are rural in nature and have historically been, and continue to be, heavily dependent upon natural resources as an economic base.

This section examines the findings of previously published case studies. For each case I have simply summarized the existing information and attempted to categorize each according to the framework developed in Section Two of this paper. The actual case study info is second source information, and was not collected by this author. The framework, and the adaptation of the case studies to that framework is the purpose of this assessment.

The case studies focus on three distinct projects: Friends of the Land of Keweenaw, a sustainable development initiative in Michigan; the Applegate Partnership, a watershed protection and economic development initiative in Oregon; and the Clinch Powell Sustainable Development Initiative, a sustainable development effort in Southwest Virginia and Northeast Tennessee.

The case studies were chosen according to several criteria. (1) The area had to be rural in nature. (2) The area had to have historically been dependent on natural resources--primarily timber, mining and other extractive industries--as an economic base. (3) The collaborative planning effort had to have some success according to the literature. The three case studies selected all fit this criteria.

THE KEWEENAW REGION OF MICHIGAN

The Keweenaw region is located in the western portion of Michigan's Upper Peninsula. It is bordered by Lake Superior to the north and Wisconsin to the south. Keweenaw County was established in the 1860's, during the heyday of mining in that area. The county itself has 65 miles of shoreline along Lake Superior, which makes it home to a number of recreational and scenic areas (MultiMag Michigan, 1997).

The region is described as having a "strong sense of community" (Sustainable Communities Network(SCN), 1996) which stems from a diverse citizenry who are united by a love for their land. Property values in the region remain relatively low, which means that residents come from a variety of socio-economic backgrounds, and there are many who have retired to the area for this reason. The three leading employers in Keweenaw County are: (1) Isle Royale National Park; (2) Rensen Products (copper rolling and drawing) and (3) Superior Crafts, which makes wooden furniture (University of Michigan, 1993).

The area is bounded by the Great Lakes, and much of the shore line along the lakes remains undeveloped, providing ample opportunity for recreation. In fact, Keweenaw County is home to the Isle Royale National Park (Fort Wilkins Historic Complex), the

Keweenaw Snowmobile Trail which runs for 179 miles, a number of recreational harbor facilities, and a number of other recreational opportunities.

The Keweenaw region has been plagued by environmental problems for decades. In the 1880's the world's largest deposit of copper was found in the region. This deposit was mined extensively, depleting the resource base in the area. There is however, no current mining activity in the region.

Timber harvesting followed a similar model in the Keweenaw area. What is described as: " One of America's finest hardwood forests" was harvested exhaustingly, "an action which has greatly reduced the forest's timber productivity for years into the future" (SCN, 1996). It is apparent to some residents of the region that this over-harvesting practice still occurs today. While these issues have been an ongoing concern to the residents of the Keweenaw region, they never seemed to unite the community into action.

Then something happened that did unite the community. As sustainability became more of a global focus, the Great Lakes region began to think about the future as well. The region is home to over 40 million people, as well as the second largest reservoir of fresh surface water-in the world (Waddell, 1995). Needless to say, this combination puts a great deal of stress on the environment. In 1972, the United States and Canada signed the Great Lakes Water Quality Agreement, in which both countries pledge efforts toward protecting and restoring the watershed ecosystem.

Despite this focus on ecosystem protection, a situation arose which united the stakeholders of the Keweenaw region in to action. In 1988, a group of developers proposed lowering Michigan's water quality standards in order to help attract a \$1.2 billion bleached kraft pulp and paper mill to the Upper Peninsula, situated near the Keweenaw Bay. Proponents for the mill stated that the new facility would generate hundreds of new jobs, which would be beneficial in an area where the unemployment rate was between 10-13 percent (SCN, 1996).

In spite of the perceived economic benefits, citizens of the region were concerned about the continuation or perhaps worsening of clear-cutting forest resources, chemical contaminants such as dioxin, and disposal and landfill issues (according to the 1990 census data there is no landfill in Keweenaw County, University of Michigan, 1993).

These concerns generated community action and in 1989 citizens created a group called FOLK, Friends of the Land of Keweenaw. FOLK was envisioned as a forum for discussions of the community's environmental concerns--the primary one at that point being the location of the mill. As a result of this dialogue, a petition opposing the location of the pulp and paper plant was presented, and over 2,000 residents signed on. The proposal was eventually withdrawn, but through FOLK many citizens had become aware of a larger problem in the Keweenaw region. The character and environmental quality of the region was suffering and it became evident that the economic development that was desperately needed must be combined with protection of these environmental resources, or else the Keweenaw region would be changed forever.

STAKEHOLDER PARTICIPATION & COLLABORATIVE LEARNING

FOLK was formed by, and consists entirely of, a diverse group of concerned residents and interests within the Keweenaw region. The governor of Michigan has openly supported FOLK and has been an advocate of joining together collaboratively to solve regional problems.

An extended stakeholder group has formed around a FOLK proposal to establish the Regional Center for Sustainable Development. This neoteric group first met on July 13, 1993 and was comprised of thirty participants representing environmental, academic, and

business interests. They met to form a vision for the Center, which would become an outreach tool. Those involved from the beginning wanted even more stakeholders to join in developing and promoting the regional sustainability model. The discussion soon grew to include members of over seventy organizations--local grassroots groups, public health agencies, Native American organizations, civic organizations, and governmental entities to name a few.

With regards to collaborative learning, there was some education going on. However, most of the residents shared a common perspective and goal--to protect their watershed. Those with conflicting goals did not participate in FOLK dialogues.

UNIFIED VISION AND GOALS

This specific concern over the threat to water quality standards and mill development, combined with a sense of community served as a catalyst for this collaborative effort which united citizens around more sustainable development in their region. FOLK published a 42 page report in the spring of 1990, which focused on the need for sustainable development in the Keweenaw region, and recommendations for how the area could work toward such development. These ideas included expanding job opportunities and employment security in smaller businesses, improving resource efficiency and maintaining ecosystem health (SCN, 1996). FOLK specifically outlined a three-step process to achievement of sustainable development in their area: (1) Stop the unnecessary outflow of money and talent from the area, (2) support existing businesses and local control of business, and (3) encourage responsible business efforts and recruit appropriate new businesses.

Further, the group working on the Regional Center for Sustainable Development (which is comprised of FOLK, plus the expanded community participants) identified a list of criteria that needed to be met for regional sustainability. Table Five highlights these criteria.

Table 5: Criteria for Sustainability in the Keweenaw Region

1. Respect and protect biodiversity
2. Consider the effects of continued, exponential human population growth on the environment, and accept responsibility for controlling our numbers
3. Recognize the importance of preventing-not just managing pollution
4. Recognize the importance of switching, where possible from non-renewable to renewable resources
5. Respect the environmental imperative to reduce, reuse, and recycle
6. Understand the relationship between socioeconomic justice and environmental quality
7. Recognize that our environmental problems are cultural, not simply technological; hence, solutions must be cultural, not simply technological.
8. Become more aware of and question some of our basic assumptions; such assumptions are often encapsulated in "ultimate terms" such as progress, efficiency and growth.
9. To the extent that technological fixes contribute to reducing environmental problems, we must not let the allure of high-tech solutions blind us to potential contributions of appropriate, tradition or innovative low-tech solutions.
10. Consider environmental impacts not only at the point of production, but also of resource extraction, transportation, use and disposal; that is consider the impact of the entire life cycle of a product or service.

Source: Sustainable Communities Network, 1996

These goals for sustainability were finalized after much dialogue and debate. The visioning process began with a discussion of sustainability and an effort to define it. Some

thought the recently published Bruntland Commission definition (meeting the needs of the present without compromising the ability of future generations to meet their needs) was not clear enough to serve as a starting point. Others felt that the group may become stuck trying to define the concept and be unable to move ahead. The group compromised, agreeing to use the existing definition as a working definition, and to define sustainability more appropriately for their context as the dialogue continued. The group agreed to begin the visioning process there, with the view that they could find common ground between economic and environmental interests, improving upon that view through collaborative discussion.

STRONG LEADERSHIP AND ORGANIZATION

At its inception, FOLK had no clear leader but rather was--and continues to be-- comprised of a wide range of community members. The group is structured so that a steering committee serves to coordinate the rest of the members.

FOLK does have some leadership from outside of the community. Craig Waddell, who has facilitated discussions regarding sustainable development in the past at Michigan Technological University, suggested that the group try to revisit and reinforce regional dialogue about sustainable development, keeping it on the agenda. The group invited Waddell to facilitate this process for them (Waddell, 1995).

FOLK has used what Waddell terms the "Social Constructionist Model" to organize discussions and stakeholder input. This model allows technical information to flow freely between the "experts" and "public", thus blurring the distinction between the two. The model is defined as: "view[ing] risk communication as an interactive exchange of information during which *all* participants also communicate, appeal to, and engage values beliefs and emotions" (Waddell, 1995, p. 207).

USING COMMUNITY RESOURCES AND BUILDING CAPACITIES

The Keweenaw community can certainly be described as using its existing resources and building its capacities. All of the work so far has been conducted by members and groups within that community. There is much support and a seemingly wide range of "experts" (Craig Waddell from nearby Michigan Tech, for example) and a wide range of citizen groups with varying interests and motivations, all of which have contributed to the planning process thus far. The Regional Center for Sustainable Development will draw on staff and citizens familiar with the area to conduct planning and outreach activities.

There is one domain that seems to require resources beyond the capacity of the community, and that is securing adequate funding for the Center. FOLK has applied for and received several grants, but outside funding and partnerships will be necessary to finance the entire project.

BUILDING PARTNERSHIPS

Formal partnerships, to this point, have not played a major role in the collaborative effort of the Keweenaw region. There are, however, plans in the works to partner with some area groups in the future. These plans include working with the National Park Service to develop eco-tourism opportunities and create more responsible tourism with Isle Royale National Park. There is also discussion of creating an inn-to-inn network of cross county ski trails, since the area is known for other winter sports such as snowmobiling. In addition, there is a consensus that the region needs to work with timber companies and harvesters to foster more responsible extraction practices, and perhaps create some value-added industries. A regional crafts cooperative has been proposed, and finally, there will be greater partnership and academic support from nearby Michigan Technological University which will be starting a Masters Program in Environmental Policy soon. Finally, FOLK is looking for partners to help fund the Regional Center for Sustainable Development.

INNOVATIVE SOLUTIONS

FOLK has come up with a number of innovative solutions to accomplish their goals of keeping people in the area, strengthening their economic base, and protecting their environment. While not all of these solutions have been implemented as of yet, they reflect time and energy spent in attempting to creatively solve the region's problems.

The first idea, is the "Keweenaw Reunion", a business development program designed to help attract residents who previously left the region for better employment opportunities. In addition, local businesses that are hiring outside the community could be surveyed to find out what skills local workers lack, and then training programs set up to address those deficiencies. A whole set of courses ranging from teaching entrepreneurial skills to environmental ethics is also envisioned.

Secondly, "buy local" programs which encourage governments to give preference to local businesses when bidding for projects could be advanced. These ideas would cut production costs and create more local jobs, thus strengthening the local economy.

The most interesting and innovative solution to come from this collaborative effort is the planned Regional Center for Sustainable Development, with its goal of designing promoting a regional model for creating a sustainable relationship between man and his environment. The Center would serve as the locus for sustainable planning activities, serving as a central point for outreach efforts and information. The Center will be involved in several critical areas: wilderness protection, sustainable forestry, environmentally responsible recreation and tourism, and recycling and waste reduction--including groundwater protection.

MEASURING SUCCESS

To this point, FOLK has achieved more qualitative success than quantitative. FOLK and other concerned citizens have successfully raised sustainability as a viable option for the region, and people have become aware of the need for such development patterns. FOLK and others have defined the concept of sustainability and created a working definition for their area. They have brought sustainability from a vague concept to a mainstream way of thinking and planning for the region. Beginning to change the way people view their environment and economic system is the first step on the road toward sustainability.

Right now the future of the collaborative efforts within the Keweenaw region is in question for one overarching reason: funding. To implement the solutions that stakeholders have envisioned, it will take more than grant money. FOLK is in the process of soliciting funding for the Center and other projects.

However, there is one more obstacle in the way of the sustainability efforts of the Keweenaw citizens. The disdain that some who are currently benefiting from unsustainable development practices in the region have shown for such efforts. In fact, some sustainability advocates have received threats to coerce them into dropping land development issues.

The big success is that the stakeholders in the region have created a new agenda to guide their planning efforts from now on. That is no small achievement. As Craig Waddell emphasizes "The players may change but hopefully the story will continue" (SCN, 1996).

THE APPLGATE PARTNERSHIP, OREGON

The Applegate River watershed, which encompasses approximately 500,000 acres, is located in the southwestern corner of Oregon. The watershed is contained within two Oregon counties, Jackson and Josephine, and is also part of Siskiyou County in northern California. The area is one of the most biologically, botanically, and geologically diverse regions in the country (Community Works Toolbox, www, 1999).

The watershed area is home to around 7,000 households with approximately 12,000 residents. A majority of the land in the region--approximately 69-70%--is owned by the federal government (39% Forest Service and 31% Bureau of Land Management), the rest is in private ownership. There are towns, but no incorporated communities in the watershed region. The Applegate Trail, known as the southern route of the Oregon trail, runs through this area

The main industry in the region is forestry and forest products, and some practices associated with this industry have created environmental damage over time. Intensive logging, extensive road building (for transportation of forest products), fire suppression and a decade of drought have taken a toll on the forest area. The result has been overcrowding of young forests, intense insect damage, altered species diversity, and elevated risk of catastrophic fire. In addition, the water quality in the watershed has declined.

In 1992, environmentalist Jack Shipley and long-time logger and co-director of the Aerial Forest Management Foundation, Jim Neal came together to discuss resource management issues in the region. The two men were growing increasingly frustrated with gridlock over resource management decisions. The region had a history of "us" against "them"--"environmentalists" versus "industry. They envisioned having the parties involved in these decisions sit down face-to-face and start working on solutions.

In the summer of that year, Shipley and Neal began to disseminate their idea for an alternative way of managing the Applegate watershed, through collaboration and communication. The two men drafted a white paper, outlining their management ideas. These ideas included practices such as, responsible extraction, no clear cutting, and no pesticide usage. Shipley presented the paper to environmental groups and landholding agencies in the region (BLM and Forest Service) and asked for comments while Neal did the same with various industries.

They surprisingly found a great deal of agreement between environmental groups and industrial interests. This agreement centered around the anxiety each group had about the long-term preservation of watershed quality and soundness of local economies. Shipley and Neal then arranged a meeting for October, inviting neighbors, community groups, environmental groups, government agencies, and industry representatives. This group of sixty concerned citizens became the Applegate Partnership, dedicated to managing their watershed in economically and environmentally sustainable way.

STAKEHOLDER PARTICIPATION & COLLABORATIVE LEARNING

The group that originated as the Applegate Partnership was comprised of sixty concerned citizens and other stakeholders. This group, which symbolized a range of interests, decided to elect nine representatives and nine alternates to sit on a board of directors. The main function of the board was organizational--to get the collaborative effort up and running. Currently, it is this board of directors which meets to discuss and decide upon action for the group, and these meetings are open to anyone wishing to attend.

Membership on the board is based on " a willingness to work toward solutions, leave partisanship at home, put ecosystem health in front of private agendas, and have time to

participate in meetings" (The Watershed Management Council, 1998). While it should be emphasized that association plays no part in board election. the nine representatives and nine alternates on the board of directors represent vastly different interests. The board includes representatives from the North Applegate Watershed Protection Association, the Rogue Institute for Ecology and Economy, the Applegate Watershed Conservancy, the Southern Oregon Timber Industry Association, one timber company, an independent logger, an independent farmer, Southern Oregon State College, the Farm Bureau, and Thomson Creek Residents for Ecological Education (TREE) (SCN, *Applegate Partnership*,1996).

Currently, the Partnership is working to increase local support by addressing more local scale issues. The Partnership feels that by having frequent meetings (four times per month) the group provides much opportunity for community participation. In addition, people with strong ideas, or who are committed to their ideas are often asked to chair a subcommittee and "run with it".

There is a great deal of exchanging ideas and collaborative learning occurring as part of this collaborative effort. Environmentalists and timber representatives, who had never before engaged in a dialogue sat down and discovered the commonalties between their positions. This was the beginning of a new learning, working relationship between the two.

UNIFIED VISION AND GOALS

The Partnership was formed out of frustration over the lack of consensus regarding management activities within the watershed area. Therefore, an underlying goal was already in existence, which served to unite the various stakeholders: "Managing for healthy forests was something everyone could agree on. Forest health brought the Partnership members together because they all wanted healthy, resilient forest ecosystems" (SCN, *Applegate Partnership*,1996).. The sense of community in this area seems to be less of a factor than with FOLK. There is no common "place"--this regional effort is defined by a common watershed, not as much by a sense of community.

The board of directors authored the following vision statement, which defined this underlying theme which had inspired the Applegate Partnership:

- The Applegate Partnership is a community-based project involving industry, conservation groups, natural resource agencies, and residents cooperating to encourage and facilitate the use of natural resource principles that promote ecosystem health and diversity.
- Through community involvement and education this partnership supports management of all land within the watershed in a manner that sustains natural resources and that will, in turn, contribute to economic and community stability within the Applegate Valley (The Watershed Management Council, 1998).

The vision developed gave rise to specific objectives for the Partnership which are listed in Table Six.:

Table 6: Objectives for the Applegate Partnership

Ecosystem Health	Improve the health of the forest using techniques that mimic natural processes. Maintain & enhance biological diversity. Maintain old-growth forest. Restore degraded forest lands. Enhance habitat of threatened/endangered species. Protect soil productivity & minimize erosion. Improve water quality & riparian zones. Implement a scientifically sound research & monitoring program to document existing conditions & future practices & changes.
Economic Well-Being	Encourage stable production of sustainable amounts of a variety of forest products to assure local, long-term employment opportunities in forest product industries. Create new jobs in manufacturing of finished wood products. Encourage use of local labor. Identify & inventory non-timber resources & develop markets for them. Create employment in research & restoration projects. Maintain & improve recreational facilities
Community Involvement	Encourage community participation in planning & implementing. Involve the community in research and monitoring programs sponsored by the Partnership & agencies. Provide opportunities & encourage private landowners to participate in Partnership projects. Provide educational programs to improve understanding of ecosystem health.

Source: Community Works Toolbox

STRONG LEADERSHIP AND ORGANIZATION

The Applegate Partnership can be characterized as having very strong leadership. It was conceived and created by two men, Jack Shipley and Jim Neal, each of whom represented a large interest group. Shipley was the environmental leader, while Neal represented industry interests. Both men were determined and succeeded in bringing together two groups who historically harbored a great deal of animosity toward each other for nearly two decades. The two leaders coordinated meetings, got stakeholders involved and created an unlikely partnership on their own.

Once the Partnership became active, leadership switched to an elected board of directors, who were charged with getting things off the ground. This board currently meets four times a month.

There are no officers (other than the board) and no chairperson, and each meeting is facilitated by a different convener.

The Partnership is designed as a relatively short-term institution, not to last more than a few more years. Its primary purpose has been to serve as a forum to bring together diverse interests who would not normally engage in dialogue.

USING COMMUNITY RESOURCES AND BUILDING CAPACITIES

Most of the project work that the Partnership sponsors is made possible through community volunteerism. For example, there are currently projects designed to improve access roads in an effort to combat soil erosion, and irrigation ditch projects underway. The group has provided free fencing to those trying to protect riparian habitat, as well as 60,000 trees which have been planted on over 100 private properties thanks to the help of over 500 volunteers. (SCN, *Applegate Partnership*, 1996).

In addition, there have been a number of cooperative studies done with surrounding universities, local agencies and the timber industry which have enhanced the work of the Partnership as well. The Partnership, in conjunction with federal agencies, has hired local high school students to perform various watershed projects.

One resource that seems to come primarily from outside the community is funding, in terms of project capital, which comes from a partnership with the Applegate Watershed Commission.

BUILDING PARTNERSHIPS

Currently, the majority of the money and expertise that supports management projects within the watershed comes from the Applegate Watershed Council. The board of directors of the Applegate Partnership and other concerned citizens sit on the council. The council receives money from lottery sales (currently over \$500,000) to cover the costs of watershed restoration projects, and to publish the *Applegator* newsletter several times a year (The Watershed Management Council, 1998).

The Applegate Partnership has applied for non-profit status, and is currently applying for project-specific grants from the various levels of government. To this point, the Partnership has received money through its member organizations that have non-profit status.

The Partnership is also part of a group called the *Lead Partnership*, an assembly of watershed commissions who meet monthly to discuss national and international issues in watershed management.

INNOVATIVE SOLUTIONS

There have been some very tangible projects sponsored by the Applegate Partnership, including fencing and planting activities mentioned in the previous section. In addition, there have been a number of public-private partnership projects between the Forest Service, BLM, various universities, and private landowners, including a community assessment. GIS systems have been incorporated into many of the analytical processes of watershed management.

The creative solutions generated by the partnership which it feels are most important are qualitative. Building a sense of trust and open communication, building positive relationships which will hopefully become the model for future problem solving efforts. Part of this trust resulted from leaving the media and politics out of early stages of the process, the opposite of what many groups seek to do--gain notoriety. The Partnership met for approximately a year without any publicity, which allowed groups to build trust without fearing that their opinions or ideas would be misrepresented by the press, or that mistakes would be highlighted by the media instead of successes.

MEASURING SUCCESS

The Applegate Partnership has been recognized by the Clinton Administration, as well as being chosen by the Department of the Interior as a model for its Administrative Management Areas.

At a more local level, the criteria for project success has been how well the projects respond to the community developed goal of forest health and community economic stability. The Partnership considers this community vision--which has been translated into action--a success due to its collaborative nature.

Related to this success has been the success which the Partnership feels is its biggest--a change of attitude. Participants stress that the Applegate Partnership can be called a success "simply because it moved beyond people and issues and the deeply ingrained gridlock that had been pervasive in the Applegate watershed to positive relationships developed between polarized groups, agencies and the community" (The Watershed Management Council, 1998). The effort has brought together groups that have historically been opponents and the result has been a commonly defined goal of forest and economic stability. Many new relationships have been formed that will allow the region to engage in future resource management discussions collaboratively.

There have and continue to be some setbacks as well. National and regional environmental groups have withdrawn support because they feel that local initiatives often run counter to national organizational goals. Federal Agencies (BLM and USFS) have also become apprehensive of local control usurping their power. Finally the Federal Advisory Committee Act (FACA) required that all federal representatives withdraw from the board of directors, due to the strict regulations regarding public sector employees and their constituents. Forest Service District Ranger Su Rolle explains that FACA has "thrown a wrench into partnership-building" (Community Works Toolbox, 1999).

THE CLINCH VALLEY OF VIRGINIA AND TENNESSEE

The Clinch and Powell River watershed encompass ten counties, and spreads more than 2,200 square miles through southwestern Virginia and northeastern Tennessee. The watershed area is rural in nature and has some characteristics that make it very unique. The area has an abundant resource base and has traditionally relied on timber harvesting, mining, and coal and gas extraction as a source of economic stability. In addition, the area has been designated by The Nature Conservancy as "one of the 40 last great places on earth" due to its plentiful supply of species. The Clinch Valley watershed is home to "one of the highest concentrations of rare and endangered species in the United States." (CCED, 1997). There are at least 136 such species found in the Clinch Valley Bioreserve, which is owned and managed by The Nature Conservancy and encompasses much of the 2,200 square mile watershed. However, this abundance of resources has led to an economic dependency on resource extraction--mining, oil, gas, and timber--which in turn has led to serious degradation of those resources and the environment in the Clinch Valley.

Unfortunately, another characteristic of the area is extreme poverty and unemployment--approximately 40% of the residents in the watersheds live below the poverty line (SCN, 1996). In addition, there is much absentee land ownership, meaning that owners are sometimes not aware of what is happening to their land, and often are not as strongly motivated to correct adverse situations. There are also problems arising from the shift to a global economy, which may cause wages to be lower and jobs to leave the area in search of cheaper labor markets.

The economic history of the region has been boom and bust, as resources are exhausted and then regenerate to some extent. However, all of these issues have combined in recent decades to create economic instability, and a mentality of the environment versus jobs in the Clinch Valley region.

Concerned residents, aware that their region was in a state of decline and struggling economically, began to look for ways to turn these problems around. In 1993, a group comprised of more than 35 participants came together to discuss ways to go about the restoration of the Clinch Valley. This group included representatives from more than 20 organization including: the Virginia Chapter of The Nature Conservancy, regional community groups, regional business interests, and public agencies including the Tennessee Valley Authority. In April of the following year, that forum culminated in the publication of *Sustainable Development in Northeast Tennessee & Southwest Virginia*, which was a strategic plan that gave rise to the Clinch Powell Sustainable Development Initiative (CPSDI). This group is a non-profit organization that promotes sustainable development in the area of the Clinch Valley watershed.

STAKEHOLDER PARTICIPATION & COLLABORATIVE LEARNING

The CPSDI began as a stakeholder initiative and continues in that fashion today. Members range from hunters and fisherman, to local environmental groups, to governmental entities, to the national environmental organization, The Nature Conservancy to name a few. All stakeholders participate on local initiatives, and there seems to be much local involvement and input. One illustrative example is the Russell County Vision Forum, which was formed in 1995 to create a strategic plan for the county. With the support of The Nature Conservancy and outside consultants, the community identified areas of concern and developed very specific action steps to take in achieving their goals for sustainable economic development.

There are many local initiatives--such as the Russell County Vision Forum--that make up CPSDI, all of which rely on grassroots support to move from vision to reality. There are representatives from almost every group existing in the region involved in CPSDI. While CPSDI is not a group per se, it is an umbrella organization which provides direction and support to a number of diverse stakeholder groups.

Collaborative learning is part of CPSDI to a great extent. It is different in that much of the exchange of ideas revolves around "experts" teaching local citizens how to become more sustainable.

UNIFIED VISION AND GOALS

The participants of the CPSDI all work toward a common goal--"improving the quality of life and the economic situation of the community, while maintaining a close bond with the land" (SCN,1996). The mission statement of CPSDI encourages development that works toward:

- Promoting values and underlying a respect for people, nature, community and culture
- Enabling communities to meet their own needs
- Establishing ecologically sensitive businesses, and
- Utilizing strategies building upon regional strengths (SCN, 1996).

This mission statement gave rise to a vision of life in the Clinch Valley which includes: "A quality and diversity of forests, land and waterways which were protected through an economic life greatly diversified and controlled" (Sustainable Development for Northeast Tennessee and Southwest Virginia, p.3 as cited by SCN, 1996). This vision also included: " a respect of the connectedness of the human and natural communities, and a system in which economic decision-making is more inclusive, democratic and effective" (Sustainable Development for Northeast Tennessee and Southwest Virginia, p.3 as cited by SCN, 1996).

Finally, this mission and vision gave rise to a set of values: "to seek development that is good for people, especially those economically left behind; to seek development that is sustainable; to seek development that is locally rooted; and to seek development that meets real needs" (SCN, 1996). There were three task forces developed to work toward these values: Sustainable, Value added wood products; Sustainable and Diversified Agriculture; and Nature Tourism.

This collaborative effort is similar to the others in that it started when individuals of a close-knit community perceived that their economic and property interests were in serious trouble. Unlike FOLK, there was no specific event catalyst, and unlike the Applegate Partnership, there was not a long history (although perhaps a shorter one) of environment against industry. Environmental concerns seem to be relatively recent additions.

STRONG LEADERSHIP AND ORGANIZATION

The CPSDI is a non-profit organization, with a director and full time staff. While these members coordinate activities within CPDSI, the initiative is organized around local initiatives such as the three above-mentioned task forces. The task forces were selected because the resources to put them into action were already present locally in the form of support, leadership, and expertise. For example, the wood products task force is led by local sawmill operators, horse loggers, wood products entrepreneurs, and conservation organizations.

All of these local groups are coordinating with each other to achieve their goal of sustainable development in the Clinch Valley. Using local leaders and experts, combined with much stakeholder support many of these initiatives have already been put into action.

USING COMMUNITY RESOURCES AND BUILDING CAPACITIES

As previously mentioned, much of the work within the CPSDI is grassroots volunteerism. The community has a number of resources, and building upon these existing resources is the theme of the sustainable development initiative. The three task forces-- Sustainable, Value added wood products; Sustainable and Diversified Agriculture; and Nature Tourism--all build upon resources the community already possesses.

The Clinch Valley is trying to build a sense of self-dependence through working from within. Creating value added industries will keep money in the community. Nature tourism will stimulate the economy without significant capital outlays. The CPSDI has done an excellent job of identifying local resources and capacities and building upon them.

BUILDING PARTNERSHIPS

The CPSDI has a number of partners who have enabled various projects to become realities. In the early stages, the Virginia Environmental Endowment and the Pew Charitable Trust provided strategic funding. In addition, The Nature Conservancy and its subsidiary the Center for Compatible Economic Development have provided staff and financial support to many of the ongoing projects--most specifically the species protection and forest bank projects.

While much of the local project work has been accomplished by residents within the Clinch Valley, much economic support has come from partnerships with outside non-profit organizations.

INNOVATIVE SOLUTIONS

CPSDI has given rise to a host of innovative programs and solutions. The task force on Sustainable Wood Products has constructed a solar kiln, taken steps to promote horse logging of timber, and developed and extensively promoted education programs regarding timber certification standards.

The task force on Sustainable and Diversified Agriculture has successfully developed a network of local growers who direct market their organic produce to consumers and restaurants. They have developed and promoted educational programs in conjunction with Virginia Tech, University of Tennessee, Virginia State University, and Co-op Extension, which focus on agricultural education and apprenticeship, and value-added food industries. In addition, they have started several Community Supported Agricultural Groups, including Highlands BioProduce, Hancock Farm Project, and Holly Creek Farm.

The Russell County Vision Forum has developed several educational programs, developed "buy local" campaigns, and initiated several projects in the various task force areas. These include a small business development center, comprehensive plan for the county, farm wineries, and a recreation facility feasibility study.

Finally the Center for Compatible Development and The Nature Conservancy are working to establish a "forest bank" for local timber landowners. The owners will provide their trees to be harvested responsibly by these groups, earning a return on their investment each year.

Many of these innovative projects have stemmed from stakeholders who have a vision for their area, and who have received the support to turn these visions into projects.

MEASURING SUCCESS

There are a number of projects within the CPSDI which have achieved success according to their various indicators and benchmarks, and have added to economically

stability in localities. However, the collective impact of these local initiatives may not be evident in the region immediately. The Nature Conservancy summed up a different view of the CPSDI success: "In the Clinch Valley, the success of ecologically compatible development will eventually be judged not by what we did in the 1990s, but by what sort of world we leave to our children and grandchildren" (TNC, 1996).

As with the other case studies, the problem is not with enthusiasm or stakeholder involvement, but with securing funding for the necessary projects. One advantage that CPSDI does seem to have is that many projects can be implemented through local partnerships and with local support--educational campaigns, and Community Supported Agriculture for example.

COMPARISON OF CASES

In conclusion, it seems that each collaborative partnership contained to some degree the elements set forth in the framework for collaboration. With FOLK, the catalyst was a perceived threat to the community. In the case of the Applegate Partnership, a vision from within the community gave rise to the collaborative planning effort. Finally, with CPSDI, the impetus from collaboration came from outside the community from The Nature Conservancy. All three groups were concerned not only for their current well being, but for the future of their community, and its sustainable development.

Table Seven provides a summary matrix comparing each of the three case studies with the framework for collaboration established in Chapter Three. The results can be generalized into several observations.

First, it seems that there are very different reasons behind each of these collaborative planning initiatives. Once started, the stakeholders were able to engage in learning through collaboration, and there was a resulting change in attitude.

Another factor that seems to be illustrated by the case studies, is that no one particular leadership or organizational style is more successful than another in effective collaborative planning efforts. Each initiative has a somewhat different style, and each has succeeded in its basic goals.

In addition, it seems apparent that one element which does influence the continued progress and success of these collaborative efforts is the ability to build partnerships both within and outside the community. These partnerships in many cases provide the necessary financial support, which unfortunately is the one resource most of these rural communities lack.

While it is safe to say that each of these collaborative environmental planning efforts has been successful on some level, the continued success of each remains questionable. FOLK will not make any future progress toward education and outreach until it has the necessary funding for the Regional Center for Sustainable Development, which has seemingly become the main focus of its efforts. The Applegate Partnership, while creating a framework for better relationships and more open communication has been hurt by the withdrawal of federal agency personnel and input. Finally, the Clinch Valley while having achieved much local project success faces serious challenges in trying to restore its ecology and economy which have suffered for decades.

Table 7: Summary Matrix of Case Study Assessment

		FOLK	Applegate Partnership	CPSDI
Engagement Issues	Impetus for Collaborative Planning	Commonly perceived threat	Vision within community	Outside influence-TNC
	Stakeholder Participation	Grassroots initiated (citizens); much grassroots participation--strong community support	Stakeholder participation focused mainly on environment v industry--more representative participation	Stakeholder initiated, (some outside forces--TNC); much grassroots participation--strong regional support
	Collaborative Learning	Some collaborative learning, many shared similar ideas	Great deal of learning between environmentalists and timber representatives	Some collaborative learning; mostly "experts" teaching citizens
	Community Resources/ Capacity	Much local support, expertise; little or no local funding	Much local support, expertise; funding available from within the state	Much local support, expertise; funding available from a range of outside sources
Process Issues	Unified Vision/ Goals	Started over a specific issue--developed into long term project/way of thinking Common property rights involved	Started over general concerns; designed to be a more short term "relationship building" structure. Economic and common property rights involved	Started over general concerns; designed to be long-term project/way of thinking Economic and common property rights involved
	Leadership & Organization	No clear leader, organized around forum/meetings	Strong leadership; highly organized--meets regularly; central decision making body	Central organization; project work more decentralized & localized; CPSDI as "umbrella"
	Partnerships	Working on partnerships, do not play a role currently	Partnerships important for technical work, funding, project support	Partnerships important for technical work, funding, project support
Outcome Issues	Innovative Solutions	Regional Center for Sustainable Development--has a host of programs, outreach	Community based watershed management plan--using community to enact the plan	Wide ranging project work--forest bank, mostly economic development with CPSDI *

Measuring Success	Success qualitative at this point--change in attitude toward sustainability ; continued success depends on funding	Success qualitative & quantitative at this point--change in attitude toward collaboration, created sense of trust between adversaries which was the goal of the initiative; project work to restore watershed has been aggressive	Success qualitative & quantitative at this point--change in attitude toward self-dependence & sustainability; project work has been aggressive, may take a while to measure success.
Obstacles to Future Success	Funding; convincing economic interests that sustainable development can benefit them	FACA--loss of support from fed groups, some funding issues, loss of national environmental support	Some funding issues; shifting economy away from resource dependence to sustainability

Source: Author * There is much work being done by the nature conservancy regarding habitat protection that has not been addressed in this paper

CHAPTER SIX: **CONCLUSION**

LESSONS LEARNED

A key lesson from this assessment is that collaboration does work on many levels. It provides a forum for open communication, and as illustrated in the case studies *can* bring adversarial groups together and create positive relationships where gridlock has historically prevailed. Involving community members, while time consuming in some instances, provides local knowledge and expertise and new ways of examining and solving problems.

It is evident that the complexity of modern environmental problems is causing people to examine them from a different perspective. The emerging paradigm in environmental management involves two components: a multidisciplinary scientific approach combined with citizen engagement and shared decision-making. In addition, environmental management is moving away from an economically based value system toward long-term planning and sustainability. Most importantly, we as humans are beginning to see ourselves *as part of a whole not apart from the whole* and manage our actions as such.

Collaborative environmental planning plays a part in this new approach to managing resources. As these case studies illustrate, there are several important things which seem to result from collaborative planning. First, is a change in attitudes. In each of the three cases examined, this change in attitudes is considered one of the main successes.

Second, is the building of shared capital. Again, in each of the case studies examined, there was an evident building of shared capital in the form of trust, norms, networks, agreed upon facts, shared definitions, and mutual understanding

Finally, collaborative planning brings people together to address issues and problems. The resulting dialogues

Rural areas, which often face unique challenges with regard to the economy and the environment, inherently possess some of the elements relevant to collaborative planning. Many rural areas, as well as programs to revitalize those areas, are focusing on the protecting the environment as a way to sustain their economy, instead of using it as an expendable commodity to provide short-term economic gain. Collaboration, as illustrated by the case studies is a good tool to use in beginning to change attitudes and perceptions about the future

In conclusion, rural areas are dealing with some complex problems regarding their economy and the environment. The nature of these problems, combined with many inherent characteristics of rural areas make collaborative environmental planning a good model to use in planning. There are, however, a number of considerations which must be mentioned regarding collaborative environmental planning, and some questions which can only be answered as part of the evolution of the process.

First, it may be hard for collaboration to become a mainstream approach because there are no guidelines or formulae for implementation. It is a unique process that must be tailored to each situation. In addition, many of the factors described in this paper are intangible. It is hard to know if a community possesses them, or if not how they can be "created". There is also much emphasis today on performance measures, criteria for success, and other ways to justify the use of a certain methodology. It is hard at this point to quantify the successes associated with collaborative environmental planning. It may be hard to justify expending the resources, if a community can't point to its success.

In addition, there are some situations in which collaborative environmental planning simply will not work. If there are legal or regulatory issues at stake, collaboration is not an appropriate alternative. In addition, if there are a large number of stakeholders or large number of competing interests, it may be very difficult to reach some common ground. Perhaps most difficult will be intractable problems, or problems in which "core values" are at stake. In situations where there are distinct positions which are entrenched, collaboration is not an appropriate solution.

Finally, what happens next? Implementation is often complicated, and in some cases never happens. Recent literature on this subject (Margerum, 1999) suggests that while many communities are highly successful at the collaborative process, they are not using their shared capital effectively to implement strategies.

Margerum lists several factors which he titles "common implementation weaknesses", including: "poor communication, problems with resolving conflicts, personality differences, extremely difficult problems, long histories of antagonism, and inadequate funding to support implementation" (p. 184). He also asserts that many efforts lack strategic direction, still focusing only on the shorter-term, many collaborative efforts lack community participation in the *implementation* phase, and that there is a lack of stakeholder (ie agency) participation in the implementation phase as well.

These weaknesses can be overcome, but it takes more work. Implementation must be guided by a "common information set", a "cooperative plan or policy", and "joint decision making" (Margerum, 1999, p. 188).

Collaboration is proving that it is worth the effort and that it a successful problem solving tool . The applicability of the approach depends upon the amount of time and resources a community is willing to invest, and what the community is willing to accept as success. If it is an immediate solution, collaboration may not be the best method. However, in long-term planning for rural economic development--which often involves changing attitudes and perceptions, and building shared capital--collaboration seems to be a beneficial problem-solving technique.

Bibliography

- Bernard, T. & Young, J. (1997). *The Ecology of Hope: Communities Collaborate for Sustainability*. Gabriola Island, BC, Canada: New Society Publishers.
- Briassoulis, H. (1989). Theoretical Orientations in Environmental Planning: An Inquiry into Alternative Approaches. *Environmental Management*, 13 (4), 381-392.
- Center for Compatible Economic Development. (1997). *The Clinch Valley*. CCED publication.
- Collaborative Partnership Handbook*. Retrieved from the World Wide Web March 11, 1998: <http://Ag.arizona.edu/partners>.
- Community Works Toolbox. *The Applegate Partnership*. Retrieved from the World Wide Web February 16, 1999: <http://www.toolbox.org/Tvtools/app-appbroc.html>.
- Cortner, H. J. & Moote, M. (1994). Trends and Issues in Land and Water Resources Management: Setting the Agenda for Change. *Environmental Management*, 18 (2), 167-173.
- Davis, J.E. (1991). *Contested Ground*. Ithaca, New York: Cornell University Press.
- Dukes, E.F & Collins, R.C. (1998). Institute for Environmental Negotiation. *Planning in Virginia 1998*, Virginia Chapter of the American Planning Association. Midlothian, VA.
- Flora, C.B, Flora, J. Spears, J.D., & Swanson, L.E. (1992). *Rural Communities: Legacy & Change*. Boulder, CO: Westview Press.
- Holmberg, J. (Ed.) (1992). *Making Development Sustainable: Redefining Institutions, Policy, and Economics*. Washington, DC: Island Press.
- London, S. (1995). *Building collaborative communities. A paper prepared for Pew Partnership for Civic Change*. <http://www.pin.org/library/ppcc.htm>
- Miller, S.E., Shinn, C.W. & Bentley, W.R. (1994). *Rural Resource Management: Problem Solving for the Long Term*. Ames, IA: University of Iowa Press.
- Murray, M. & Dunn, L. (1996). *Revitalizing Rural America: A Perspective on Collaboration and Community*. Chichester, England: John Wiley & Sons.
- MultiMag Michigan. (1997). *Keweenaw County, Michigan*. Retrieved from the World Wide Web February 25, 1999: <http://multimag.com/county/mi/keweenaw>
- National Civic League (1998). *Healthy Communities Toolbox*. Retrieved from the World Wide Web December 8, 1998. <http://www.ncl.org/ncl/toolbox.htm>.

- Power, T.M. (1996). *Lost Landscapes and Failed Economies: The Search for a Value of Place*. Washington, DC: Island Press.
- Randolph, J. & Bauer, M. (1999) Improving Environmental Decision-making through Collaborative Methods. Manuscript submitted for publication in *Policy Sciences Review*. Virginia Polytechnic and State University.
- Rural Policy Research Institute. (1998). *Rural Policy Context: Diversity in Rural America*. Retrieved from the World Wide Web January 21, 1999: <http://www.rupri.org/ruralcontext/diversity>.
- Sargent, F.O, Lusk, P, Rivera, J.A, & Varela, M. (1991). *Rural Environmental Planning for Sustainable Communities*. Washington, DC: Island Press.
- Slocombe, D.S. (1993). Environmental Planning, Ecosystem Science, and Ecosystem Approaches for Integrating Environment and Development. *Environmental Management*, 17 (3), 289-303.
- Southern Rural Development Center. (1991). *21st Century Survival of Rural America*. (SRDC publication no. 157). Jackson, MI: Author.
- Stokes, S.N, Watson, A.E. & Mastran S.S. (1997). *Saving America's Countryside: A Guide to Rural Conservation*. Baltimore, MD: Johns Hopkins Press.
- Sustainable Communities Network (SCN) Case Studies. (1996). *Applegate Partnership*. Available at: http://www.sustainable.org/casestudies/oregon/OR_epa_applegate.html
- Sustainable Communities Network (SCN) Case Studies. (1996). *Clinch Powell Sustainable Development Initiative*. Available at: http://www.sustainable.org/casestudies/virginia/VA_af_clinch.html
- Sustainable Communities Network (SCN) Case Studies. (1996). *Investing in the Keweenaw's Future-Moving Toward Sustainable Development*. Available at: http://www.sustainable.org/casestudies/michigan/MI_af_keweenaw.html
- The Nature Conservancy. (1996). *People, Jobs, and Nature: Ecologically Compatible Development in Southwest Virginia*. *Virginia Chapter News 12/96*. Retrieved from the World Wide Web February 6, 1998: <http://www.tnc.org/Virginia/vasp1.htm>
- The Watershed Management Council. (1998). *The Applegate Partnership*. Retrieved from the World Wide Web January 15, 1998: http://glinda.cnrs.humboldt.edu/wmc/news/sum_95/applegate.html
- United States Environmental Protection Agency. (September 1997). *Community Based Environmental Protection: A Resource Book for Protecting Ecosystems &*

- Communities*. (EPA publication no. 230-B-96-003). Washington, DC: US EPA Office of Policy, Planning & Evaluation.
- United States Environmental Protection Agency. (April 1995). *Conceptual Framework to Support Development and Use of Environmental Information in Decision Making*: Document Number 239-R-95-012, Washington, DC. Available:
<http://www.epa.gov/indicator/>
- United States Department of Agriculture, Economic Research Service. (1998). *Rural Conditions and Trends: Rural Industry*, 8 (3). Washington, DC: Author.
- University of Michigan, Mlink. (1993). *Community Profile for Keweenaw County, Michigan*. Retrieved from the World Wide Web February 25, 1999:
http://mlink.umich.edu/MI_counties/keweenaw.html
- Waddell, C. (1995). Defining Sustainable Development: A Case Study in Environmental Communication. *Technical Communication Quarterly*, Spring 1995, 4 (2). Pp. 201-216.

My name is Dawn Godwin, and I am a Master's student in Urban and Regional Planning at Virginia Polytechnic Institute and State University. My concentration is in Environmental Planning, specifically natural resources planning. My academic interests focus on creating ways to get citizens more involved in natural resources planning and management. I grew up in Roanoke, Virginia and have spent time living in Washington, D.C. and Jackson, Wyoming. I will graduate in May of 1999 as an MURP.