1992

Planning model for rural community development

Rick Freeman

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A PLANNING MODEL FOR RURAL COMMUNITY DEVELOPMENT

by

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B.A., Montana State University, 1988

Presented in partial fulfillment of the requirements
for the Master's degree of Science
in Environmental Studies

University of Montana

1992

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_[June 2, 1992]_
Date
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INTRODUCTION

Much of the discussion about development—in the United States and internationally—has focused on economic development, and often on the development of the market economy. In many cases, the effects of economic development have been devastating. The World Commission on Environment and Development (1987) writes:

The process of economic development must be more soundly based upon the realities of the stock of capital that sustains it. This is rarely done in either developed or developing countries. For example, income from forestry operations is conventionally measured in terms of the value of timber and other products extracted, minus the costs of extraction. The costs of regenerating the forest are not taken into account, unless money is actually spent on such work. Thus, figuring profits from logging rarely takes full account of the losses in future revenue incurred through degradation of the forest. Similar incomplete accounting occurs in the exploitation of other natural resources, especially in the case of resources that are not capitalized in enterprise or national accounts: air, water, and soil. (WCED 1987, 52)

This theme is not new. Of market economy development in the nineteenth century, Polanyi writes:

What we call land is an element of nature inextricably interwoven with man's institutions. To isolate it and form a market out of it was perhaps the weirdest of all undertakings of our ancestors.

Traditionally, land and labor are not separated; labor forms part of life, land remains part of nature, life and nature form an articulate whole. Land is thus tied up with the organizations of kinship, neighborhood, craft, and creed—with tribe and temple, village, gild, and church. One Big Market, on the other hand, is an arrangement of economic life which includes markets for the factors of production. Since these factors happen to be indistinguishable from the elements of human institutions, man and nature, it can be readily seen that market economy involves a society the institutions of which are subordinated to the requirements of the market mechanism. (Polanyi 1957, 178)

And, over a century ago, Marx wrote of these effects of market-oriented economic development on land and humans:

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Capitalist production, by collecting the population in great centres, and causing an ever increasing preponderance of town population, on the one hand concentrates the historical motive-power of society; on the other hand, it disturbs the circulation of matter between man and the soil, i.e., prevents the return to the soil of its elements consumed by man in the form of food and clothing; it therefore violates the conditions necessary to lasting fertility of the soil. By this action it destroys at the same time the health of the town labourer and the intellectual life of the rural labourer. (Marx 1906, 554)

Tonnies, also writing from the nineteenth century, referred to a transition from Gemeinschaft to Gesellschaft, from community to society and from rurality to urbanity. He wrote of a transition from "real and organic life" to "imaginary and mechanical structure" (Tonnies 1988, 33):

All intimate, private, and exclusive living together, so we discover, is understood as life in gemeinschaft (community). Gesellschaft (society) is public life—it is the world itself. In Gemeinschaft with one's family, one lives from birth on, bound to it in weal and woe. One goes into Gesellschaft as one goes into a strange country. (Tonnies 1988, 33–34)

Modern writers refer to this argument as the "mass society thesis" (Martin 1989, Summer 1986). Nisbet, writing of a "quest for community" in the face of mass society, argues that "the outstanding characteristic of contemporary thought on man and society is the preoccupation with personal alienation and cultural disintegration" (1953, 3).

Though some argue that the mass society thesis is not completely valid (for instance, Summers 1986), social studies reveal that some change, whatever we call it, is evident. Specifically referring to the United States, Warren writes of the "Great American change":

It doesn't take much of a sense of history to recognize that the changes we see taking place today are simply today's momentary outcome of a series of changes which have been taking place not only in this country but—at various speeds—throughout the globe, changes which are directly traceable to the industrial revolution of the Eighteenth Century, if not back to the Renaissance. It is, of course, impossible to grasp their full complexity. It is perhaps convenient to
refer to the whole bundle of basic social changes as the great change. (Warren 1975, 3)

Writing on rural community development, Warren goes on to describe some aspects of this change: a "continuing process of division of labor"; a "greater diversity of interests and associations"; a trend of "local units in the community to become increasingly tied to organizations and systems outside the local community"; a "trend toward impersonal bureaucracies"; "the gradual transfer of functions out of the home and out of neighborhood groups and voluntary associations to profit enterprise and government"; a trend toward "urbanization and suburbanization"; and, a "change of values" (Warren 1975, 3–6). Stinson (1988) summarizes the argument: "[T]oday no community is independent. All are tied to the national economy, and all receive subsidies from the state and federal governments" (11).

Limits on rural community development

In many communities, this change has led to crises, to which rural (and non-rural) community development often responds (Summers 1986). Analogically, community development often responds to distrust of "extra-local" solutions (Timmons and McCall 1990). Warren argues that many community development practitioners implicitly or explicitly direct their efforts toward reversing the erosion of communities, but except for a few "smoldering trends" and failed attempts at revolutionary change, development tends to focus on adjusting within and mitigating these changes. Many authors demonstrate that forces affecting communities are, for the most part, out of reach of these communities, and several perspectives seeking to explain social change focus on the importance of extra-local political and economic influences (Batie 1988; Cloke 1985; Markusen 1980; Martin 1989; Mosely 1980; Stohr 1979; Warren 1975; Wilkenson 1986; Winter 1980). Mosely writes:

In short, most of the decisions which underlie the social and economic problems of rural areas are taken outside those areas.
This is not a crude indictment of 'urban colonisation' or a call for parish-pump democracy. Rather, it is a suggestion that we look to the workings of national and international bodies (private and public) to understand what is going on and to develop appropriate policies. (Mosely 1980, 97)

Wilkinson summarizes this view when he writes, "a strategy of RCD must come to grips with sources of rural problems in the larger society," while addressing "the distinctive contributions of rurality to community" (1986, 2).

The Political Dimension

Other constraints on rural community development can be more local. Specifically, rural community development will take place within a local political context. To begin with, most literature and rhetoric addressing community development is prescriptive and normative, in that it states what development should do to achieve certain ends (Hildreth 1972, Christenson and Robinson 1980, Gil 1980, Summers 1986). Even if certain strategies objectively correspond to certain ends, prioritizing ends is subjective and political.

Thus, community development will proceed according to political processes (Cumberland 1971, Christenson and Robinson 1980, Humphrey and Erickson 1989, Stone 1980, Summers 1986). As Edelman (1988) argues, problems (which are the foci of development) are social constructions, and articulating them often depends upon being predisposed to their solutions.

One of the most visible community development issues concerns economic development's role. In Markusen's view, "the development literature has been dominated by economists" (Markusen 1980, 406), and according to Summers, "economic development occupies a dominant position in the activities of professionals engaged in rural community development" (1986, 356). According to Batie (1988), state development agencies equate development with "creating a 'good business climate' and courting new industrial development," which usually means "cheap, docile nonunion labor, low taxes, and minimal government interference" (1098).
Humphrey and Erickson argue that this dominant position results from institutional forces favoring a narrow economic focus:

The prevalence of activities to promote local growth and revitalization reflects the emerging of interests inherent in the institutional fabric of nearly every American community. Large landholders, businesses, and public officials share a dependence upon economic growth, and the status and commitment of these groups to a community ensures that their interests are taken to be central in the organized development efforts of a place. (Humphrey and Erickson 1989, 625)

According to these authors, community leaders influence policy and attract investment by forming formal organizations and unifying community sectors to compete with other communities. "In this manner, business interests are able to co-opt government and labor leaders in a community, thereby gaining a wide variety of subsidies such as infrastructure grants, tax abatements, and wage concessions" (626).

According to Stone (1980), political influences can be more subtle. He argues that "systemic power," or indirect, unintentional power derives from socioeconomic status. That is, institutional biases towards relatively wealthy and powerful constituents favor community decisions that will favor these constituents. This subtle decision-making influence is more likely to occur in contexts that are relatively less visible and less subject to pluralistic politics; in development terms, the processes of choosing alternatives to consider and implementing plans are susceptible to such systemic power.

On the other hand, community members normally excluded from planning occasionally organize to demand broadened participation and specific development aims (especially neighborhood revitalization and improved service delivery). But, according to Crenson (1983), the occurrence and intensity of such mobilization depends upon many aspects of the community. For example, the socioeconomic mix of the residents, the degree of neighborhood decay, local history, among other factors, condition neighborhood mobilization. Because of the high number of variables, characterizing
which communities will mobilize and how they will mobilize is difficult.

The important lesson to gain is that each community will have its own circumstances that conditions how development will occur, and thus, development planning will vary across communities.

Scope of this paper

In this paper, I will assume that rural community development is constrained by extra-local processes and politics, but I will not address these issues beyond what comments I have offered. My main thesis is that, within these constraints, rural community development practitioners (voluntary organizations, governments, and so forth) will have to construct and confront their particular problems in their contexts and with their solutions. I offer a possible framework—the Hierarchical Planning Process—to help with the process, and I attempt to clarify the framework by sketching a hypothetical community model. The paper follows this basic outline:

In Chapter One, "Community and Rurality," I argue that various people have different meanings for the terms community and rurality. Some believe that communities do not exist, because society has subsumed their significant features. Others believe that communities do exist, and they have offered different perspectives of what they are. I argue that these perspectives have value, because they point to community characteristics that can be important to community members; they each describe features that significantly affect people, though these features will vary depending upon context. I apply the same arguments to rurality. Development planners should attend to the characteristics of community and rurality that have significant influence on rural community members. Ultimately, development participants will decide what aspects of their community and rurality they wish to protect or enhance, and these aspects should guide their planning.

In Chapter Two, "Rural Community Development," I argue that various
people view development in differing ways. Each community's develop-
ment will manifest its own mix of priorities; several possible concerns exist.
I discuss some of economic and ecological aspects of development as well as
roles of participation in planning. I also discuss a predominant debate
between substantive and procedural development perspectives in the
development literature. I argue, as do others, that rural community develop-
ment will include both foci, and practitioners will be more effective if they do
not try to separate the two. Rather than developing in terms of these labels
or in terms of other formulas, practitioners should develop in terms of their
communities' specific values, circumstances, and needs. Thus, rural com-
unity development practitioners need a methodology that will help them
identify their values, identify their circumstances and needs in relation to
their values, and guide and monitor the development process.

In Chapter Three, "Social Indicators," I respond to rural community
development practitioners' need for a framework to formulate their values
and plan development. Social indicators can be useful to community
development practitioners seeking to attend to these values. I discuss social
indicators, generally and as a means for understanding a community's needs
and circumstances in relation to its values. In using social indicators, the
practitioner must recognize that they derive from values. I conclude the
chapter by summarizing the uses and limits of community social indicator
models, stressing that social indicators ultimately derive from value struc-
tures and suggesting that a social indicator development framework should
explicate the relationship between community values, social indicators, and
action.

In Chapter Four, "The Hierarchical Planning Process (HPP)," I discuss a
framework for deriving social indicators from value structures and "action
variables" from social indicators. A social unit's value structure is analogous
to and determines its goal structure, which in turn determines social
indicators and actions that affect them. I argue that the HPP is an effective means for identifying action principles and explicating their relationships to community value structures. Though a planning group devised this methodology for regional water use planning, community development practitioners can adapt it for use in rural community development planning.

In Chapter Five, "The Hierarchical Planning Process Applied to Rural Community Development," I discuss the HPP as a means for rationalizing rural community development, and placing it within a possible planning context. Of course, this scenario is only one of any number of possible scenarios, but it provides a wider procedural context within which the HPP might work. Then, I demonstrate an application of the HPP to community development. I emphasize that while the HPP is only one alternative, it does provide a means for planning that is adjustable to subjective perspectives on community, rurality, and development.

Finally, I conclude by discussing some of the advantages that the HPP holds for meeting the needs of rural community development, and I tentatively suggest some ways with which communities can broaden their vision beyond the community.
CHAPTER ONE: RURALITY AND COMMUNITY

The concepts to which the terms rurality and community refer traditionally have been central to the social studies and they are relevant to rural community development. Sociological literature often discusses them in terms of their idealistic opposites, urbanity and mass society, pairings that derive from Tonnies' century-old gemeinschaft-gesellschaft dichotomy.

But, while social studies practitioners often use the terms community and rural, several authors have criticized their use. Few agree upon meanings for them, and some argue that these words do not refer to any significant phenomena.

Still, development studies can use concepts associated with the terms rural and community, because the terms can refer to factors that influence views on development and the quality of life. And, these factors do not necessarily exist exclusively to their traditionally paired opposites; social relations can include rural and urban, community and mass society influences.

For the purposes of rural community development, planning participants will choose what rural and community influences are important to them. They will have their own meanings for community and rurality in accordance with their own perceived environments and needs. This chapter discusses literature on community and rurality that might inform these perceptions. In the first section, I outline and discuss some perspectives on community, including whether or not community exists and what it is. In the second section, I discuss some arguments concerning rurality—whether or not it exists and why it is meaningful.

Community

Bernard (1973) asks the question, given the shortcomings of community paradigms, "[i]s the concept of the community necessary for an understanding of how our society operates?" (179) According to Bernard, many answer no to
this question, arguing that technology (i.e., advances in communication, transportation, mechanization, and the increased specialization and social distribution of labor), economic and political integration, and mass media have "eroded" the community such that it is no longer a meaningful object of study.

Summers (1986), writing on rural communities, refers to this argument as the "mass society thesis," claiming that many sociologists assume that communities have been "eclipsed by the great changes in mass society":

The basic argument was that social organizational changes wrought by these macroprocesses had robbed rural communities of local autonomy in their decision-making and had absorbed them into mass society. (Summers 1986, 349)

Yet, Summers continues, "[i]n recent years there has been a growing sense that the pronounced impotence of rural communities has been somewhat exaggerated" (Summers 1986, 349). In fact, many authors have not abandoned the idea of the community (Rossi 1968, Wilkinson 1986, Warren 1972, Bernard 1973). According to Rossi, the "daily lives of most people are contained within local communities...narrowly circumscribed areal limits," and, "[t]he local community is also the setting for the major events in the life cycles of individuals" (Rossi 1968, 87). Warren (1972) supports this argument, stating that, though the community concept is the focus of criticism, it still claims some validity in that "[t]he term 'community' implies something both psychological and geographical"; it implies "shared interests, characteristics, or association" and a "specific area where people are clustered." Bernard similarly argues that "[p]hysical boundaries are still meaningful to residents," and subjective meaning is important (Bernard 1973, 6).

While researchers have not forsaken community as an object of study, they remain cautious about using the term. Rossi, discussing community indicators, argues that "[t]he search for an adequate definition of the term community is in all likelihood another search for the Holy Grail" (Rossi 1968, 93).
According to Rossi:

The term "community" carries with it such a freight of meanings from vernacular usage that sociologists might be much better off to drop the term and invent new ones to cover the phenomena in question. . . . [Though] we all know what we mean...these meanings interfere with the comprehension of the term when it is used with more precise intentions. (Rossi 1968, 90)

Other authors make similar arguments. Bernard argues that current paradigms for studying the community are obsolete, and people are best off not trying to seek timeless definitions. Warren, in his discussion of American communities, writes that "[t]he idea of the American community is deceptively simple, so long as one does not ask for a rigid definition" and furthermore, "the traditional way of thinking about communities is no longer adequate, if it ever was, to describe American community life" (Warren 1972, 1). Wilkinson summarizes this point of view when he stated that "[t]he community is elusive as a scientific concept, and it is elusive as a social phenomenon" (Wilkinson 1986, 1).

While most social scientists and practitioners have agreed that comprehensive definitions for community are not available, several perspectives offer some insights on what community can mean to development planning. Generally, these perspectives are of four types: the community as a social membership; the community as a local ecology; the community as a social system; and the community as a subjectively perceived locality.

**The community as a social membership.** Definitions in this type focus on social structures—value structures, institutions (in the sense of Berger and Luckman 1966), and networks that are not necessarily attached to geographical localities.

Some see community as an ideal set of institutions—a set of agreements that, if it existed, would integrate a group of people and create a membership based on mutual tradition. Nisbet (1953) describes the decline of community institutions in the face of encroachment by the political state—an encroach-
ment characterized by social disintegration. He focuses on the erosion of community, resulting in "man's moral estrangement and spiritual isolation." He stresses the connection between social and individual separateness, writing that a "sense of cultural disintegration is but the obverse side of the sense of individual isolation"..."man's alienation from society's relationships and moral values" (Nisbet 1953, 10). Referring to a lost community ideal, he writes of a "vocabulary of community" that includes the concepts "[integration, status, membership, hierarchy, symbol, norm, identification, group...]" (Nisbet 1953, 23). Writing about returning to such social organization—what he calls a "quest for community"—Nisbet writes "[w]hat is involved most deeply in our problem is the diminishing capacity of organized, traditional relationships for holding a position of moral and psychological centrality in the individual's life." To the lost community, he attributes the functions we now describe as legal, educational, and economic, arguing that these functions were traditionally concomitant with the moral and spiritual (maintenance) functions, and thus, when the modern state took over the formal functions from the community, it displaced the community's role in maintaining the less formal functions (Nisbet 1953, 54).

Coleman (1961) focuses attention on behavior—specifically organizing activities. On one hand, he argues similarly to Nisbet that "the term community concerns things held in common"—"things" like common ideas, beliefs, and norms—as well as a "set of people" (Coleman 1961, 554). And, he emphasizes that "geographical clusterings" are not necessarily defining features for community, though people often refer to them as such: "Nothing in the definition of 'community' implies a geographic locality. Yet, we often speak of such a locality (a village, town or city) as a 'community'" (Coleman 1961, 557). But, for Coleman, the important feature of a community is its organization, or its membership's ability "to take action." Thus, "if a community can act collectively towards the problems that face it, then it
is well organized"; the salient feature of the community is its ability to perform "activities which men carry out pursuing their own ends" (Coleman 1961, 555-56).

The concept of social networks focuses on objects of organization—communication and resource allocation. Through their focus on the differences between neighborhood and community (separating community from spatial locality and normative unity), Wellman and Leighton offer an interesting focus for community organization:

We suggest that the network analytic perspective is a more appropriate response to the community question in urban studies than the traditional focus on the neighborhood. A network analysis of community takes as its starting point the search for social linkages and flows of resources. Only then does it enquire into the spatial distribution and solidary sentiments associated with the observed linkages. Such an approach largely frees the study of community from spatial and normative bases. It makes possible the discovery of network-based communities which are neither linked to a particular neighborhood nor to a set of solidary sentiments. (Wellman 1979, 365)

Almost all of the people we studied have many strong ties and they are able to obtain assistance through a number of close relationships. Yet only a small proportion of these "intimate" ties are located in the same neighborhood. . . .(Wellman 1979, 376).

While Wellman and Leighton emphasize that though communities do not have to correspond to a geographical location, sometimes they do. But, according to this concept, communities' important features are networks:

In sum, we must be concerned with neighborhoods and community rather than neighborhood or community. We have suggested that the two are separate concepts which may or may not be closely associated. In some situations we can observe the saved pattern of community as solidary neighborhood. In many other situations, if we go out and look for neighborhood-based networks, we are apt to find them. They can be heavily used for the advantages of quick accessibility. But if we broaden our field of view to include other primary relations, then the apparent neighborhood solidarities may now be seen as clusters in a rather sparse, loosely bounded structures of urbanites' total networks. (Wellman 1979,
From some perspectives, associating networks with boundaries is important. Planners often need a concept of an area to work within, and as systems perspectives suggest, propinquity does matter. Two community concepts that confront the relationship between the community and space are the ecological and central place models.

The community as a geographical area. Whereas the social interaction emphasizes social institutions as determining the community, human ecology emphasizes space as a determining, structural force; a geographical shape makes a community. The ecological model of community derives from biological models of spatial organization, using natural ecology's terms to explain social processes:

The cultural community develops in comparable ways to that of the biotic, but the process is more complicated. Inventions, as well as sudden or catastrophic changes, seem to play a more important part in bringing about serial changes in the cultural than in the biotic community. But the principle involved seems to be substantially the same. In any case, all or most of the fundamental processes seem to be functionally related and dependent upon competition. (Park 1966, 38).

According to Park, the settlement patterns that make up human communities result from "[t]he struggle of industries and commercial institutions for a strategic location" (37). This struggle results in dominance relationships, in which "[t]he area of dominance...is usually the area of highest land values." Park writes that land values "determine the location of social institutions and business enterprises [that] are bound up in a kind of territorial complex within which they are at once competing and interdependent units" (37). In human terms, such competition and dominance result in political conflict.

Eventually, however, communities reach "equilibrium," a condition in which the specialization of labor is relatively "stable":

Competition operates in the human...community to bring about
and restore the communal equilibrium, when either by the advent of some intrusive factor from without or in the course of its life-history, that equilibrium is disturbed.

Thus every crisis that initiates a period of rapid change, during which competition is intensified, moves over finally into a period of more or less stable equilibrium and a new division of labor. In this manner competition is superseded by co-operation. (Park 1966, 36)

Then, frequently, "as a result of progressive changes in life-conditions, possibly due to growth and decay, the equilibrium achieved in the earlier stages is eventually undermined" (Park 1966, 38). The ecological model refers to this process as "succession."

While the ecological model of communities borrows from natural ecology, its adherents acknowledge that human ecologies are subject to some additional complexities resulting from social relations:

For one thing man is not so immediately dependent upon his physical environment as other animals. As a result of the existing world-wide division of labor, man's relation to this physical environment has been mediated through the intervention of other men. The exchange of goods and services have co-operated to emancipate him from dependence upon his local habitat.

Furthermore man has, by means of inventions and technical devices of the most diverse sorts, enormously increased his capacity for reacting upon and remaking, not only his habitat but his world. Finally, man has erected upon the basis of the biotic community an institutional structure rooted in custom and tradition. (Park 1966, 41)

According to the ecological model, the institutional nature of human communities resists change and facilitates "symbiosis" or cooperation between community members. Nevertheless, "this more or less arbitrary control which custom and consensus imposes upon the natural social order complicates the social process but does not fundamentally alter it..." (Park 1966, 41).

A model that shares the community ecology model's focus on settlement patterns and their relationship to economic activity is the central place
model, which Stinson (1988) briefly describes:

Economic geographers and central place theorists have probably come closest to a useful definition for development policy purposes. Focusing on the concept of trade or market areas a hierarchy of communities has been established. The classification system begins with the assumption that consumers desire, other things equal, to minimize transportation costs. The tradeoff between transportation costs and lower prices attributable to size economies then produces a spatial ordering of communities with lower order trading centers providing for everyday needs and higher order central places providing more specialized services serving a larger market area.

Communities are categorized by the complement of goods and services offered within their boundaries. The result is a hierarchy of communities with individuals being counted as part of smaller, everyday trading centers as well as the market for the specialized services offered in larger communities. The community or central place is defined to include all who regularly act in that market regardless of the political jurisdiction in which they reside. (Stinson 1988, 10–11)

In summary, the ecological and central place models describe communities as spatial settlement and land use patterns resulting from economic pursuits and strategies.

In contrast to these models, the social systems model of communities considers spatial patterns as contexts (rather than defining features) of communities.

The community as a social system. Social system community models treat the community as a combination of individuals and groups that meet the ends that make social life possible in a given locality. Several models exist, which all share concepts of community structures within the context of a place, which itself is within a larger environment (i.e., a larger society and state) (Sanders 1966, Warren 1972, Fitzsimmons 1981, Martin 1989). These models consist of several parts: the environment; functions (or needs and goals); social units (groups and individuals); linkages (internal and external); and boundaries.

Regarding the geographical setting of communities, Warren argues that
purely spatial conceptions are inadequate because they de-emphasize formal social organization, while purely social definitions fail to regard the effects of spatial clustering. He wrote that "[people's lives and their behavior are significantly influenced by their propinquity [which] calls for social structures and social functions which sustain life in the locality and provide the satisfactions which people seek." Thus, his definition of community includes social structures relevant to a geographical setting: "that combination of social units and systems which perform the major social functions having locality relevance." (Warren 1972, 9). Similarly, Fitzsimmons defines a community "as a social system composed of persons living in a defined locality over a period of time..." (Fitzsimmons 1981, 39), and Martin indicates the significance of "residential activity" (Martin 1989, 231). On the other hand, Sanders emphasizes that, in his conception of the community, the significant factors are social interaction and network structures, and "other matters become settings...part of the environment in which the community as a social system operates" (Sanders 1966, 10). Yet, Sanders also includes locality in his definition of a community as "a territorially organized system coextensive with a settlement pattern..." (Sander 1966, 26). In summary, territory, or geographical space condition social activities.

Perhaps more important to the social systems model is a focus on "locality relevant functions." According to Warren, "the five major functions which have such locality relevance" are: "production/distribution/consumption; socialization; social control; social participation; and mutual aid (Warren 1972, 9). He writes that most of these functions are met through various "auspices," including individuals and families, ad hoc informal organizations, formally organized associations, businesses, and government bodies. These entities organize ad hoc, issue by issue, rather than "in a rational or systematic fashion." While Warren focuses on five functions, Sanders focuses on "community processes" and "operations" in a "functional
context" within a community system. According to him, processes are "series of observable acts occurring between components of the system," including "goals in interaction," "social change," and "social control," and "operations" are the behavior of the whole system, including recruitment, socialization, communication, status differentiation, goods and services allocation, socialization, allocation of power and prestige, mobility, and integration (Sanders 1966, 37–43). Sanders identifies six community "components" (or auspices in Warren's model): "the person" (a "social product"); "the social relationship" (between persons); "the social group" (with its own, institutionalized behavior); "the social grouping" (the relationship between groups); the subsystem (institutionalized networks which produce their own ends); and major systems (Sanders 1966, 29–36). Martin, speaking in more common language, emphasizes "daily needs" and the "many diffuse goals" (sometimes conflicting) of the various community actors (Martin 1972, 235), and thus she emphasizes "orderly activities and routines engaged by [families, workgroups, and social welfare organizations] component parts and subsystems" (242).

Generally, community systems models use the term linkages to describe the relationships between components. According to Martin, "communities can be viewed as linkage networks. A network is a system of relationships" (Martin 1989, 240). She describes six types: "internal vertical down," internal vertical up," "internal horizontal," "external vertical down," "external vertical up," and "external horizontal." Thus, Martin described linkages hierarchically and according to direction; linkages suggest the movement of information and ideas or other resources from one social component to another. On the other hand, Sanders, lists five types of "system linkages" according to how they link subsystems into the system: "ideological commitment," "personal linkages," "programs" (or joint pursuits), finances, and combinations of all these types (Sander 1966, 180). In summary, linkages
relate components together in a variety of ways, creating a whole system rather than a collection of isolated parts.

A final aspect of the community system model is its conception of boundaries. Warren emphasizes that "boundary maintenance" is an important aspect of communities when he wrote that "[t]o the extent that [American communities] cannot be meaningfully distinguished from their environment, they cannot properly be considered as social systems" (Warren 1972, 143). But, boundaries are difficult to establish. Sanders indicates that in a hierarchy of social orders (using a continuum ranging from the nation state to the village), "higher order" processes and operations can subsume those of a "lower order" (Sander 1966, 68). In functional terms, extra-community systems can and do displace or complement the community in fulfilling locality relevant functions. When this displacement occurs, distinguishing between local and non-local systems becomes difficult, because some "segments" have different boundaries than others. Thus, Warren discusses a "Great Change" in American communities. In general, he claims, American communities are becoming less autonomous as they become more dependent on outside auspices to meet their functional needs. This integration of American communities with their larger society blurs community boundaries—geographical and social. Martin (1989) confronts this ambiguity that "external linkages" pose to the social system model when she defined communities as "loosely coupled systems." She writes that communities "are complex, diverse, loosely coupled, continuously changing, and inclusive phenomena... not as tightly coupled as families, work groups, or social welfare organizations," with "boundaries [that] are frequently difficult to identify" (Martin 1989, 240). In her model, identifying boundaries is not as important as identifying networks, with the a priori assumption that networks occur in a place. She broadly identifies communities "arenas of social interaction that include an array of people, groups, and organizations
performing many diverse activities...and that have extensive ties to their environment" (Martin 1989, 227).

When identifying communities for development purposes, practitioners will often need to determine their geographical boundaries. This task is difficult, as the social system literature indicates. Some of the ethnographic literature suggests that practitioners can confront this issue by listening to "locals."

**The community as a subjectively perceived locality.**

Strathern suggests that residents will form their own subjective concepts of their locality, of their community. Their concepts will refer to concepts of non-local, which will be relative to their particular environment; which facilities they use that non-locals do not use, what attributes their communities "possess," and so forth, will condition their concepts of local.

Thus, every community *per se* will have its own sense of community boundaries. From a development perspective, Burns (1985) argues that community members' own conceptions of their community are significant in that a community is what its members perceive it:

> Hearing the way local people, that is, members of a particular community or place, made their world was always fundamental for all of us—enabling me and citizens to see the community as it was. Attempting to know a particular place, even a small part of a community, necessarily meant relying upon the sense made by the people who lived in that place... (Burns 1985, 10–11)

Markusen (1980) indicates how community members' conceptions of their community might be significant to development. She describes how tradition and ethnic composition combine with the "historically evolved local economic structure..., class structure, sectoral structure, state structure, and short-run returns to capitalist production" influence structural aspects of development (Markusen 1980). Given that ethnicity and tradition are subjectively perceived and significant, community members' self-images affect development.
But, Strathern points out, what some community members perceive is not always what other community members perceive. People do not necessarily agree upon what their community is (who are outsiders and insiders, what geographical boundaries separate inside from outside), but they will agree that insiders are different (somehow) from outsiders, and in the community is different than out.

The greater problem, however, is that in trying to determine what a particular community is or is not, one might turn up nothing but individual meanings:

One rapidly regresses of course—a different kind of vanishing effect—to the point where being a villager emerges in some contexts but not in other, and there is no village to be described that is not in people's minds for particular purposes. (Strathern 1984, 194)

What community practitioners need, then, is a way of getting agreement on the issues of what the community is. They need a framework with which to decide what the community is, and this framework will need to account for various aspects of the community, some of which this chapter has discusses.

This section offers some insight as to what communities really are—or are not. The next section attempts to unravel the rurality concept—one of the issues that conditions what members think of their communities and community changes.

Rurality

While the Census Bureau and the Department of Agriculture use density parameters to define rural and urban, their criteria does not discuss what makes rural areas significantly different from urban areas.

On the other hand, literature trying to demarcate the differences between urban and rural areas are abundant, though they construct no convincing argument that, a priori socially significant difference exists between the two. Yet, in everyday life, people frequently use these terms to describe themselves
and others or to describe communities. On some level, the rural and urban categories matter or carry meaning to people. Ultimately, these meanings may comprise the significance of rurality as well as indicate its bearing upon community development.

In this section, I briefly trace the history of rural studies, which began with a focus on the rural-urban dichotomy, moved into methodological oriented arguments and eventually concentrated on the structure of agricultural production. I will highlight some of the characteristics attributed to rurality that might be useful to rural community development practitioners.

The rural-urban dichotomy. Sorokin and Zimmerman, in the second of two volumes seeking to detail the difference between rural and urban populations, write of the "physical, vital, and psycho-social characteristics of farmers and peasants and of the differences existing between agricultural and urban populations" (Sorokin 1932, 3). They also speak of functional differences:

As the rural and urban environments became differentiated, in an increasing degree certain specific function were relegated to each society. (Sorokin 1932, 629).

Among the differences, the authors claim that rural populations produce surplus labor, which moved to urban, industrial centers; the "rural world has been the principal source of health and vitality"; it has "specialized in the production of food and other raw materials"; it has socially organized its communities into a dominant political force; and it has conserved "cultural values" (Sorokin 1932, 629-632).

According to Newby (1983), rural sociology continued to define itself according to this type of codification until the 1960s, when, in general, it began to approach rural studies from other perspectives. Summers (1984) argues that rural sociology depended upon this continuum-categorization due to animosity towards the city. But, Summers states, the "idea that where people live determines how they live is a compellingly simple notion that formed the centerpiece of social scientists' conceptualization of the rural-urban
continuum" (Summers 1984, 157). According to Newby, a "series of community studies during the 1950s and 1960s had demonstrated empirically...that 'rural' is an empirical descriptive category without explanatory significance. This left behind a theoretical vacuum and a professional identity crisis in rural sociology that took more than a decade fully to resolve" (Newby 1983, 69). Changes in social, economic, and demographic patterns further exasperated rural sociology's "identity crisis":

The reverse migration of urban dwellers into rural areas, which gathered pace during the 1960s, meant that the rural and urban populations could no longer be easily defined, socially or culturally. The traditional economic activities of rural areas—agriculture, forestry, and extractive industries—no longer supported most of the rural population. What was "rural" in sociological terms, and what was the proper subject matter of rural sociology? (Newby 1983, 74)

Rural sociology's response was to forsake attempts at theory and gather quantitative data:

In the absence of any general theory of rural society, rural sociologists attempted to increase the scientific character of their field by emphasizing methodological rigor. Theory could be reconstituted piecemeal, it was believed, on the basis of rigorous, scientific enquiry allied, for the most part, to sophisticated quantitative analysis...The achievements in this regard were impressive...Unfortunately, however, researchers tended to become intoxicated by this success. A certain methodological approach—positivist, inductive, quantitative—became an end in itself rather than merely a tool of analysis. (Newby 1983, 74)

Since the 1970s, sociologists and geographers have attempted to correct this lack of theory, partly out of self-consciousness and partly resulting from the agricultural crisis of the 1970s, which created a demand for convincing rural theory (Bradley 1984, Cloke 1985, 1989, Newby 1983, Rees 1984). Responding to rural studies' theoretical vacuum, Cloke states in a review of rural geography that the discipline needs a conceptual framework, analytical methods, and an emphasis on applicability (Cloke, 1985). In two articles, he grapples with the issue of whether or not social studies can demarcate a
rural studies zone, concluding that, for analytical purposes, there is no discernable rurality: "those . . . whose interest lies more in explaining why land use changes occur and what interactions exist between economy and society in those areas of extensive land use are far more likely to succumb to the social construction of space and to concentrate their research on wider structural phenomena within familiar localities." (Ironically, in his opening editorial in the first edition of the Journal of Rural Studies, which is devoted to rural issues, Cloke challenges the notion that there is rurality, that is, that there is a 'rurality' significant to political-economic analysis (Cloke 1985).)

According to Cloke, three themes currently characterize rural geographers' definition of rurality, such that a rural area is one that:

(a) is dominated (either currently or recently) by extensive land uses, notably agriculture and forestry;
(b) contains small, lower order settlements which demonstrate a strong relationship between buildings and extensive landscape, and which are thought of as rural by most of their residents;
(c) engenders a way of life which is characterized by a cohesive identity based on respect for the environmental and behavioral qualities of living as part of an extensive landscape (Cloke 1989, 173).

Apparently, the geographers' community has left themes a and b relatively intact, but has dismissed the efficacy of theme c. Extensive land uses, that is, spatially defined means of production, cannot produce a "cohesive identity"; only social production can produce meaningful social relations. Space and society are functions of capital's demands, and capital determines social relations, and capital determines the social construction of space (though space can be a "secondary, contextual affecter"). The point is that, while extensive land uses distinguish themselves from non-extensive land uses, the distinctions are not necessarily socially significant; associated social forms do not constitute a "rural society."

Many share this view and argue for a "political-economic" strategy for structuring agriculture studies, which interprets social activities traditionally labeled rural in the context of society-wide, capitalist production (Bradley

.... [T]here are highly significant changes occurring within the time-space structuring of contemporary capitalist societies but their effects cannot be summarised in terms either of the dichotomy between rural and urban areas, or of apparently identifiable regions...The most important of these changes involve the spatial restructuring of capitalist production and of civil society, and these patterns of spatial restructuring have had the effect of heightening the socio-political salience of local systems of social stratification. (Urry 1984, 45)

On the other hand, some argue that rurality, as measured by relative density, contributes to tighter social networks and self-sufficiency. Mosely (1980) argues that rural residents place more value in volunteerism and self-help than do urban dwellers, while Wilkinson (1986) writes that "[f]ewer people and fewer groups generally have fewer problems of communication, coordination, and integration" (6). Fitzsimmons writes:

The social system patterns found in this research make a strong case for highly interactive communities. In contrast to urban areas, the smaller scale of rural communities, closer personal contact, and role sharing among local institutions appear to create a more cohesive social structure. In short, rural communities have the fundamental ingredients for effective determination of their needs. (Fitzsimmons 1981, 337)

But this argument, though supported by research on the study's ten communities, might not hold as a generalization. According to Summers (1984. 158), studies of so-called urban communities have revealed substantial social integration, and in a study on neighborhood politics, Crenson demonstrates that social integration has many measures and is based upon varying conditions independent from density, among them the residential mix of socio-economic statuses, amount of household production of goods and services, and the degree of local social control (Crenson 1983). In addition, agricultural, small town, and boomtown studies throw doubt on the rural integration hypothesis, demonstrating that conflict is a major part of social life in these areas, and conflict arises from a number of sources (Markusen
The conclusion must be that community integration varies and does not depend upon or characterize rurality.

But, rurality, similar to community, is an attribute that people subjectively perceive. In Burns' work, people bespoke such a sense of rurality, especially as development threatened to disrupt their perceived ways of life. This perception might well affect development in the same way that a sense of community will. Reflecting back to Markusen's work, local perceptions of a rural tradition (whatever locals perceive that to be) can affect sectoral struggle and rent, labor, and property ownership relations. Thus, in terms of development, planners must somehow account for locals' self-perception of rurality.

Conclusion

The literature on community and rurality offers some insight on how their associated concepts affect people, and these concepts can be helpful to the rural community development practitioner. The emphasis on membership is interesting in that the idea of the community as an identifiable entity is the idea of a category that includes members and non-members, though boundaries (social and geographical) are difficult to define. This idea of membership is consistent with development needs, in that development is targeted change; it works through projects, which are always limited in scope. Further, the idea of membership, even in the midst of controversy and conflict, offers the possibility of agreements, at least on some matters, and thus, it offers a potential focus for development planners. The emphasis on organized action is similar to membership because it too focuses on a concept central to development—action. Likewise, the focus on the community as a network is relevant to development, because development will, on some levels, have to include communication and circulating resources.

The spatial concepts of the community are relevant to development in that they focus on the relationship between land use, economy, and settlement. The central place model is especially important, because it focuses on areas of
concentrated activity. Besides offering the beginnings of a geographical focus, the central place model suggests limits to development; acknowledging a hierarchy of central places forces planners to focus only on those goods and services a community can reason-ably expect to provide.

The social systems model offers several insights. The idea of locality relevant functions offers target areas for development; community development can focus on improving the community's ability to meet goods and services needs, improve education (or "socialization"), rationalize local regulation (social control), encourage participation, and provide social "safety nets" (mutual aid). In addition, this model's focus on linkages is appropriate from a development perspective because it emphasizes internal communication and membership as structural components; development planning focuses on these components.

The ethnographic view of communities is important in that it indicates that local groups (probably voluntary associations) will construct their own problems and actions, and in doing so they will decide what aspects of their communities are important. In addition, their self-views of tradition and ethnicity will affect investment from within and outside their communities.

This ethnographic view is also important to residents defining their rurality. If community members participating in development consider themselves rural, and they value this sense of rurality, then they will need to focus on preserving or enhancing this rurality. If this rurality means "extensive land uses" or "small, lower order settlements," then development should focus on these patterns.

Rural community development, if it is to benefit a suitably wide range of people, must attend to the needs of residents; it must focus on that participants consider to be the important aspects of their communities. These aspects will vary, and development strategies will vary. The next chapter discusses literature on some aspects of community development relevant to rural communities.
In general terms, rural community development is "planned intervention to stimulate social change for the explicit purpose of the 'betterment of the people' " (Summer 1986, 360). Almost everyone agrees that it refers to changing the community "for the better," or making it more "viable" (Hildreth 1972, Summers 1986, Stinson 1988). But, it seems, the agreement stops beyond these general (and ambitious) terms (Hildreth 1972); few agree upon what "for the better" and "viable" are, much less how to achieve them.

Several questions frame the disagreement around community development. Should it focus on broadening participation in the planning process? Should it attend to increasing goods and services through developing infrastructure, housing, business activity, and similar activities? Or, should it attend to both? Who should plan development—those with expertise, capital, and acknowledged political power, the general population, or of both? What constraints should communities put on "physical" or "economic" development? Or, in other words, what environmental and social regulations should guide development?

Regardless of what anyone thinks rural community development should be, it will be top down and bottom up, technocratic and lay person guided, economic and social in focus—the mixture depending upon circumstances in the community. In this chapter, I will discuss some of the literature attending to these questions. Specifically, I will discuss literature about task-based development (concerning specific projects) and process-based development (focusing on public participation and building social integration), and I will discuss reconciling these two orientations. I will conclude by summarizing how these issues inform rural community development, emphasizing the integrated perspective sometimes called "sustainable development."
Task-based development—"development 'in' the community".

Christenson and Robinson distinguish between two types of perspectives—"development in the community" and "development of the community." The authors refer to development in community as the "task" or "technical" development that many categorize as economic development. Summers, borrowing Christenson and Robinson's terminology, emphasizes the role of community institutions (as social constructions) in development in the community. Because community institutions guide rural community development, its forms will vary as much as communities do, and diversity characterizes the community development literature. Given the variety of development strategies and the diversity of communities, one generalization seems to emerge: each community must pick, monitor, and adjust its own combination of development strategies.

Economic development and growth. Stinson (1988), writing about "rural community viability," (and noting that it varies in definition) recommends that communities coordinate at the regional and state levels, focusing on their respective strengths and abilities to produce for future goods and services markets. Summers discusses economic development in rural communities in terms of strengthening "the capacity of the local state to continue generating income and employment in order to maintain, if not to improve, its relative economic position" (1986, 357). Summers (1986) focuses on forecasting changing export markets, stating that "the longevity of any community ultimately depends on its ability to renew its export base; the capacity to invent, to innovate, or to acquire new exports" (357). Thus, he claims, "community economic development requires a local network of services and facilities which insure the continued availability of factors of production—especially land, labor, and capital" (357–358). He recommends action by local governments:

The local state can determine land uses to a great extent through planning future land-use patterns, exercising the power or eminent domain,
regulating the size, type, and use of construction, as well as through discretionary provision of public services. The location of roads, streets, highways, sewers, gas lines, bridges, tunnels parks and schools all impinge upon future land uses and land values. (358)

Unfortunately, Summers goes on to recommend government action that would sacrifice environmental and equity considerations to business interests:

There are options local states can use to enhance their ability to retain and attract a skilled labor force. Through zoning laws they can ensure adequate land for middle-class residences. They can build and maintain parks, recreation facilities, high quality schools, and adult education programs. Provision of public services seldom used by middle-class residents can be kept to a minimum or eliminated and thereby the tax burden to skilled labor can be reduced. (359)

[Local states] may reduce the tax burden for firms by minimizing public services, especially to taxpayers with above average benefit/tax ratios and to nontaxpayers. They may offer public land at a discount price or perhaps free of charge. They may provide tax holidays where law allows such practice. They may exempt or discount the assessment of real property; land, buildings, machinery, equipment. They may reduce or ignore regulations such as safety and pollution codes. (360)

Other authors also stress the need for a viable basic sector. Fitzsimmons (1981), comparing the role of investment in the "education sector" to investing in other sectors, writes that investing in the "basic economic" and "government operations" sectors is more effective than investing in others. His research indicates that government and basic economic sectors influence more sectors than others, and these two sectors more tangibly demonstrate results than do other sectors.

Gillis and Shaffer (1985) recommend that communities concentrate on selecting specific industries whose labor needs match local labor profiles. Shaffer (1989) expands upon this strategy, calling it "prospecting." He writes that "the community creates a list of prospects who meet community criteria for factors such as jobs, wages, and environmental impacts" (116). He discusses "resource requirements/availability analysis" and "market analysis" as two methods of picking prospects. The basic idea seems to be to search for a particular industry or business to suit the community's profile.

On the other hand, much of the literature warns against generalizations. Several authors write that communities must be careful when emphasizing manufacturing industries; in some communities other development goals will be more effective (Pulver 1979, Redwood 1988, Bender 1987, Malecki 1988). Summers and Branch write that "[i]ndustrial development is not a panacea for all rural communities" (1984, 148). Again, the central message seems to be to avoid "panaceas."

Several authors recommend encouraging service industries to complement or replace emphasizing manufacturing. In a recent article, Pulver writes:

The growing need for rural people to rely on the service-producing sector for growth in employment and income is the critical new variable. If rural areas can be competitive in attracting service-producing industries (tourism, computing and data processing, nursing and personal care, business services) and high-technology based manufacturing industries, their future is bright. While studies of the factors important to industrial location have focused on traditional goods-producing sectors, some insights have been gained regarding the service-producing sectors and the new high-technology manufacturers. Most critical among these are access to knowledge, capital, telecommunications, transportation and a high quality living environment. (Pulver 1988, 5)

Redwood (1988) states that service industries—especially export service industries—will provide most new employment in rural areas, but in general, service industry growth will depend upon healthy manufacturing industries. He emphasizes the need for building new goods and service industries, which will depend upon scientific and technological innovation. He further stresses the advantages to such growth will spatially vary; metro-adjacent areas will benefit the most.
Bender also emphasizes that communities will have to focus on "derivative" or export service industries, but he is not as optimistic about communities' abilities to attract service industries, because multipliers are shrinking, and service industries are centralizing. Thus, he recommends that communities focus on producing exports (service and goods) and consumer services catering toward non-employment income markets (especially retirees). Glasmeier (1989) is also cautious in his forecast of service industries' promises for rural community development. He argues that communities should only promote service industries as part of a comprehensive strategy; communities must couple any service industry with basic industries to have a significant impact on local economies. He writes that while developing a services export base offers the best hope for communities interested in service industries, research indicates that most service exporters reside in urban centers, and would therefore have to relocate to benefit rural communities. Since service export industries depend upon agglomeration economies, they have little motivation to relocate in rural areas, which have few benefits to offer other than low cost labor. And, while low labor costs will make communities competitive for "back office relocations"—traditionally routinized and labor intensive industries like insurance, banking, and data-processing—these industries depend upon skilled labor, which most rural communities lack. For the same reasons, rural communities are not attractive to "flexible" service industries, which also depend upon extensive infrastructure. At best, only a few communities will be able to lure service exporting industries, and most of these communities will be metro-adjacent. Glasmeier writes:

In sum, like rural manufacturing, nonmetro service growth has slowed since its 1960's heyday. Most rural services are tied to goods-producing sectors. Given the aging population of the country, there is some possibility that rural areas can create import-substituting services. But export service sectors are traditionally less connected to the local economy. That is, they are generally not 'homegrown', and show little potential as propulsive industries. Therefore, export services may not contribute to creating a vibrant base to support other types of local economic activity." (1572)
No doubt rural areas are likely to receive their population-based shares of service employment and an occasional back office relocation. But it is unlikely that services will form the basis of viable self-sustaining economies in any but the most fortunate rural communities. (1579)

Other literature discussing communities luring service and manufacturing industries is also cautious. Malecki (1988) warns that promoting new firms might be futile given the position of rural areas in relation to the more developed urban areas, which can offer the advantages of agglomeration economies, well-developed infrastructure, and urban amenities. In addition, Malecki suggests, new "new firm spin-offs" are not as likely to locate in remote areas; "mature production," high-technology branch plants are more likely to relocate, but these types of operations are more attracted to suburban and metro-adjacent areas.

However, Shaffer (1989) writes, "[a]tracting a new manufacturing plant...is only one of the many avenues available to create local economic development. Expansion of existing businesses and formation of new businesses are two other routes through which the community can pursue economic development" (110). Power (1988) emphasizes that existing businesses, especially small ones, employ the most people in rural areas. He suggests strategies like forming business incubators and capital coordinating strategies to encourage small and existing businesses.

Malecki suggests that communities emphasize "the people related characteristics of entrepreneurship," such as education and communication. Consistent with this point of view, Pulver emphasizes that communities must be "comprehensive" in their strategies, recognizing local opportunity and encouraging import substitution. **Education.** Almost all of the literature focusing on economic development in the rural community mentions education and training. Malecki (1988) discusses the role of "college or technical-school training" and "information sources" to identify outside markets in the success of "new craft-related industries" in the Appalachian region. According to him, this success "suggests that educational attainment is a key factor behind the disparity between rural and urban areas" (568). Unfortunately, rural areas lose many of their educated entrepreneurs to urban areas with more
work opportunities. Thus, Malecki writes, "[p]olicy efforts currently underway in many communities focus on the building and enlivening of information networks and interpersonal contacts among local business and potential entrepreneurs." But, he warns, "[e]ducation and information networks both require determined effort over many years before the effects are visible." Redwood also discusses education and training as integral parts of a "foundation for development," especially their importance in creating an entrepreneurial environment. Pulver emphasizes the role of the state in fostering entrepreneurship through education:

The most important initiative which states could take would be to provide educational and technical assistance for community economic development to rural leaders and officials. Much local energy is fruitlessly expended in the name of economic development simply because rural officials do not know which strategies are likely to have the greatest payoff, (Pulver 1988, 7)

Much of the literature discusses education in relation to a more competitive workforce. Redwood (1988) and Leven (1985) both consider improvement in worker training important to rural development, especially in terms of attracting new investment and making existing firms more competitive, and both discuss education in terms of infrastructure. Summers and Branch (1984) discuss education in terms of its importance to the local labor force. In communities with ill-trained workers, jobs resulting from new investment tend to go to workers migrating from other communities, and thus the underadvantaged local and untrained workers remain unemployed or underemployed.

Fitzsimmons (1981), after studying the role of educational investment in ten small, rural communities, writes that education was the third most important sector after the government and economic base sectors. He argues that the education played a "mediating role" between community sectors; it is closely integrated with and provided a "pivotal role" in the functioning of communities. But, in the short term, local power structures limit the role investment in education can plan in community change, and thus, Fitzsimmons does not consider education to be a major change agent. He recommends that communities focus education in-
vestment on training and distributing information (consistent with Malecki), but he does not believe education should be the centerpiece of development.

Finally, the Floras (1988) view education's importance to community development in a larger sense. They write that:

Schools have traditionally been the center of social life and an active indicator of whether the rural community was alive and functioning. However, this focus on community solidarity has many times placed undue emphasis on extracurricular activities, at the expense of academic excellence and the provision of laboratory sciences. Moreover, the distaste for controversy often drives out teachers, principals and school superintendents who advocate change. (Flora and Flora 1988, 3–4)

They see education's role in building "entrepreneurial communities" as being more general than skills training. They view it as contributing to a more "viable lifestyle option."

Encouraging housing and community development. Nolon (1983) and Matulef (1988) discuss "residential development agencies" and "community development agencies" in respect to their abilities to help provide housing to needy community members. Matulef, discussing community development from "a natural perspective," describes housing development as part of a larger part of economic recovery when he writes that community development agencies "provide job training and placement services, participate in assisted housing management, and engage in economic revitalization activities" (245). CDA activities also include "area-wide physical improvements," financial assistance for housing improvements, some "transportation and waterfront development," and some "tax-increment financing projects and historic preservation activities" (245–249). To meet their capital needs, CDAs usually combine federal funding (especially U.S. Department of Housing and Urban Development Community Development Block Grants) with leveraged private sector dollars to provide their services. According to Matulef, CDAs are only somewhat integrated with other service providers: "Most CDAs are distinct from local social service units: human resource, public welfare, public health, recreation, employment departments and so forth." Yet, CDAs support service
providers, sometimes financially, and provide them referrals.

Nolon (1983) also discusses housing development as part of a larger development emphasis. His discussion focuses on "residential development agencies," which are, in general, private and public sector collaborations using a variety of funding strategies for housing renovation, housing construction, mall construction, hotel construction, and other building development. RDAs use various financing strategies. One strategy relies on business initiative to form and gather support for associations of businesses contributing some percentage of their taxable incomes to specific "charities or civic causes" (13). Other important strategies include businesses sponsoring development bonds; businesses supporting revolving fund accounts (each development project contingent upon the repayment of funds from previous projects); forming stock companies, selling preferred stock to corporate buyers and voting stock to non-profits; and forming land banks. An important vehicle for much of this type of development is the non-profit organization, which Nolon characterizes as an "institution to unite the private and public sectors in a joint venture to serve their mutual interests":

In some cases, the nonprofit was needed to coordinate the investment of public and private dollars. In others, it was used to create a climate more conducive to private investment. In still others, it was used as a vehicle for expediting governmental processing of development proposals and securing needed approvals from public agencies. (Nolon 1983, 14)

Bruyn (1985) and Meehan (1985) discuss "community land trusts"—democratically owned, non-profit corporations that buy land and rent it to community members at affordable rates. Trust members are local residents who receive (or buy for a nominal fee) voting stocks (one person—one vote) and elect a Board of Trustees. Board members act within a charter to buy land, lease to renters, and hire management (or contract) for maintenance and construction. Renters are CLT members and often sit on the board of trustees. They rent long term (often 99 year contracts) and can sometimes build on the land. Their use must follow CLT criteria, and they may sell equity (like buildings) according to their trust's guidelines. The CLTs confer many advantages upon the community. Through their charters, they
can make demands, such as insisting upon specific environmental, financial, and social user criteria. And, by removing land from the market, CLTs reduce inflationary pressures to sell, reduce opportunity costs for holding, and resist neighborhood gentrification. Finally, by paying rent, renters are strengthening their own organizations, and much of the money stays in the community.

Meehan (1985) and Coughlin (1985) discussed a model similar to the community land trust—the housing cooperative. Generally, housing cooperatives are organizations that allow multiple family housing residents to own the buildings in which they live. Each resident has one vote on cooperative policy and must conform to its standards. The cooperative directs management tasks, such as construction or maintenance spending, though often, residents will build or maintain the building, investing in "sweat equity." Housing cooperative charters define "resident" and guide building use and selling, depending upon which of two types the cooperative is. "Market cooperatives" allow members to sell at market price, while "limited-equity" cooperatives restrict resale price, based on certain schemes, to allow affordability to low income newcomers.

According to Meehan and Coughlin, housing cooperatives' advantages include: removing housing from market pressures (especially with limited-equity arrangements), thus making homes affordable to low income people; reducing costs (because tax assessors assess whole buildings rather than individual units); and reducing rent. Housing cooperatives can also help stabilize communities; since residents have decision making power, they are less likely to move than if they rented, and in this way resist gentrification. Finally, they make possible cooperative projects like greenhouses, garden projects, and recycling, as well as increasing communication among neighbors.

Local production for local consumption. Yaksik (1981) addresses the needs of community members in depressed areas, stressing locally manufacturing goods that help consumers meet basic needs through "appropriate technology," for example, active solar energy devices. Thus, he describes a development strategy addressing
unemployment and consumption. In Yaksik's words, community development should "emphasize local economic development through labor-intensive, small scale ventures at the community level" (460). Of course, all projects, according to Yaksik, would have to meet financial standards. Okagaki and Okagaki (1981) refer to such projects as "targeted solar programs," making reference to their role in encouraging "import substitution." They also stress the importance of this type of strategy to poor communities, noting that low-income people generally spend large percentages of their incomes on home energy. Spin-off benefits include technical training and employment.

**Restoration ecology.** Unfortunately, development has devastated most of the ecosystems with which it has contacted. Thus, the "restoration ecology" community—including activists, researchers, technicians, and so forth—is attempting to find ways to repair damaged systems. In general, restorationists agree that the tasks are complex, and they are not likely to mimic "natural systems" per se:

The nature of the disturbance, its duration, scale, and frequently selectivity may ensure that recovery to original condition is highly improbable. Since the nature of the disturbance plays a pivotal role in ecosystem recovery, a different management strategy usually must be developed for each type of disturbance. (Cairns 1988, 465)

An example of restoration ecology as rural community development is the effort of Mattole River watershed residents (near Cape Mendocino, California) to restore the Mattole River king salmon population (House 1990). After years of heavy logging, resulting erosion and destruction of riparian zones had drastically diminished king salmon spawning grounds. Mattole residents formed the Mattole Watershed Salmon Support Group to gather and use resources. Most expertise and resources came from local residents, who researched other similar projects for ideas and technologies. As House writes:

The salmon group worked from the assumption that no one was better positioned to take on the challenge that the people who inhabited the place. Who else had the place-specific information that the locals had? Who else could ever be expected to care enough to work the sporadic hours at odd times of the night and day for little or no pay? (House 1990, 37)
The crew used a combination of salmon trapping, breeding, and incubating, data gathering, and habitat reconstruction to restore the population. And, by "1988, the salmon [fishing] fleet had its largest catch in over 40 years," due to the Matole valley and other restoration projects.

Of course, most people agree that scientific inquiry has not provided "the answers"; we do not really know how to "fix" ecosystems. But, restoration ecologists urge, communities must try, through careful action and assessment, to restore our "niches":

> It is in this sense, I think, that the 'natural' community proves a 'benchmark' or reference point. It is not through watching the system, but through the active effort to restore or maintain it that we measure and evaluate our constantly changing relationship with it (Jordan 1987, 2).

As this discussion indicates, task-based development takes many forms, none of them necessarily exclusive to the others, and it will likely involve a mixture of many activities. Related to such activities are many environmental and social issues that practitioners must somehow confront. The rest of this section will briefly deal with considering quality of life in rural community development.

**Preserving quality of life in rural community development.** Two important points in the development literature pertaining to quality of life are that quality of life has varying definitions (Redwood 1988, Pulver 1988, Eberts 1979), and planners must be careful not to sacrifice the quality of life that they seek to improve. Pulver (1988) writes:

> Americans expect to live and work in communities which offer a high quality of life. Although the definition of high quality varies, most people agree on good schools, excellent cultural opportunities, satisfactory housing, public amenities, clean air and water and a pleasant setting. (Pulver 1988, 7)

Glasmeier stresses quality of life—again in a wide sense—as necessary for communities seeking to lure service industries. He suggests that a rural quality of life is attractive to some people, and as such, is sometimes a factor in relocation decisions.
But, Eberts (1979) points out that quality of life not only describes a huge set of criteria, but is also difficult to measure. He emphasizes the obvious when he writes that "growth in economic terms (income, employment and institutions) alone is not enough to improve the quality of life," and sometimes rural industrialization may not meet quality of life expectations (159).

Power (1988) argues that development planning should carefully weigh intended benefits against costs; he is concerned with foregone opportunities including a healthy environment, stable communities, and relatively natural wildlands. Discussing economic development and the tendency for some planners to promote business expansion at the cost of quality, he writes:

Quantitative expansion is seen as an economic good by itself that automatically boosts the economic well-being of the local population. It is often invoked to override qualitative considerations such as neighborhood aesthetics, environmental concerns, the quality of public services, or the local "way of life." (131)

The point is that we have to understand the limited role the commercial sector now plays and the importance of the goods, services, and resources developed outside of the world of commerce. Only then can we look in a balanced way at the total economy and pragmatically choose where to draw the line that limits commercial activity. (203)

Much of the development literature discusses quality of life in terms of a healthy, natural environment. With a growing public focus on nature, community development practitioners and researchers, for ethical, practical, and political reasons, are beginning to consider it in planning. One of the earlier attempts at this consideration comes from Dasman (1973), who considers conservation from a practical standpoint. He writes that "[p]roperly interpreted, the goals of conservation and those of development should coincide if the long term well being of the human race is given equal consideration with the immediate needs of today's population" (16). He goes on to describe some of the technical considerations concerning conservation and development. His point is that development should prioritize the natural environment. McHarg (1969) also discusses prioritizing natural systems. He argues that land use systems should adhere to a hierarchy of ap-
propriate use values, and though each locality is different, his point is that each locality does have more and less sensitive areas, and communities should address their planning accordingly.

Another quality of life concern is that of equity in receiving benefits. Shaffer refers to an "equity versus efficiency philosophy":

Limited resources available to support community economic development efforts, at both the local and national levels, require maximum efficiency. A public policy focusing on economic equity emphasizes the distribution of the rewards and burdens of economic development among individuals and groups inside and outside the community. This type of policy emphasizes the need to include deliberately those segments of the community excluded from the mainstream of the economy. An equity program might also compensate groups who bear a disproportionate share of the burden of change...Equity means distributing access to opportunity or avoidance of arbitrary and external constraints to opportunity. An equity policy objective requires giving priority to areas of greatest distress...to reduce their economic disparities from the norm. Compare this equity objective with an efficiency objective, where the priority would be given to areas with greatest potential for productivity. (Shaffer 1983, 93)

Nelson (1984), who discusses economic development in terms of alleviating poverty, considers equity in terms of distribution of income, stating that some discussion of distribution will be part of goal formation. Pulver (1988) argues for extending training benefits to women and dislocated workers.

On the other hand, Shaffer emphasizes that equity and efficiency are not always mutually exclusive:

Some believe that equity and efficiency are the major economic development trade-offs confronting communities and policy makers. However, this may not be so. The major trade-off occurs when equity, defined as a static redistribution of economic output, income, and resources, conflicts with activities to improve efficiency. However, development is a dynamic process concerned with creating new products, mobilizing new resources, improving the quality of existing resources, and altering structural and institutional arrangements which impede the effective utilization of resources. Thus the pursuit of dynamic efficiency may also yield the equity results desired. (Shaffer 1989, 93)

Quality of life issues are important in that considering them, planners can "temper" their decision-making (Stohr and Franz 1977). These issues speak to some
of the root questions our value system suggests. But they, like other considerations, are only components of a larger, more complicated process.

An question important to task based development is how various focuses fit together. Shaffer (1989) writes that community development can involve a unified or fractionalized set of actions:

A community consciously attempting to alter its economic situation can pursue a comprehensive strategy, or it can simply implement a collection of programs that may not be cumulative or even effective in achieving the stated objectives. A collection of programs does not a policy or strategy make. (Shaffer 1989, 81)

Hildreth concurs, writing that, because many different "action systems"—federal, state, county, and so forth—may be pursuing different ends and means, resulting in confusion, redundancy, and mutual defeat, communities should integrate programs and make them more coherent (Hildreth 1972). Shaffer (1989) writes, "[a]ny strategy must be based on a theory or model about how a given entity functions and will respond to stimulus. A community economic development strategy must be based on a theory of community economic development" (81).

In Shaffer's terms, development must be unified in theory and action to comprise a strategy. This assertion may or may not be true. But, given the political nature of development in an "interest group society," integrated development may not be the dominant mode. The next section discusses some issues that inform this political aspect of development.

Developing integration and participation—development of the community

Some community development practitioners and authors prefer to focus on developing community integration and participation in decision-making. Christenson (1980) and, later, Summers (1986) refer to this focus as development of community. In this section, I will discuss literature on community development as building problem-solving abilities, as fostering participation, and as community organizing.

Community as promoting problem-solving. Warren (1972) believes the ultimate concern of community development practitioners should be fostering a com-
munity's abilities to solve everyday life problems by integrating otherwise separate "action systems." According to him, "community development is distinguished by its emphasis on the long run, and its primary attention to strengthening the horizontal pattern" (323). He contrasts community development with "episodic action"—task based action—which does not directly confront the problem of building community, though episodic action is part of a process of building "horizontal ties." Biddle and Biddle (1968) likewise concentrate on building problem-solving and cooperation skills, arguing that if a community succeeds in building its problem-solving skills, then task directed development will follow. Weisner (1977) focuses on a process of directing social behavior. Regarding community integration, he writes that "[a] tacit assumption made by community workers and their supporters is that they have an impact on people's lives as a result of their dual efforts (1) to serve as an informational link to the outside world, and (2) to organize and promote village-level associations" (665).

Several authors have followed this problem-solving perspective, focusing on building (relative) self-reliance through a "social learning" process. Weisner and Silver (1981) elaborate upon Weisner's earlier (1977) concept of a behavioral perspective on community development, arguing that groups behave (act), consider the consequences of the action, and then adjust behavior according to the consequences (punishment or reward); ultimately, this process of adjustment (which may include several task oriented behaviors) guides a community to fruitful group behaviors. They argue that "long-range development is sustained by broadly based yet specific advances in behavior" (148). Thus, practitioners should facilitate the social learning process rather than concentrating on completing task type projects. Jewell and Robertson discuss a similar social learning perspective, arguing that given "adequate methods, skills, and self-confidence," a community can rely on its own resources (broadly defined). They discourage adopting specific, long term goals; rather, they write, community development practitioners should encourage communities to engage in task-oriented projects with which they can succeed and
build confidence and community. Hibbard (1986), responding to what he calls a failure of "technical development" in a depressed Oregon timber community, argues for a social learning process that would build a sense of community identity and common fate. Building such community involves engaging and succeeding in small tasks and "building on small successes to create a sense of competence" (197). From this base, communities can adapt to changing socioeconomic conditions through projects they deem significant.

One of the central themes in the problem-solving development perspective is community members participating in their own development. Much of the community development literature directly addresses the theme of community participation.

The roles of participation and organization. Rothman et al. (1981), writing in the context of changing organizations, broadly define participation "to include not only the recruitment of new members but also changes in the pattern of existing members' participation." Thus, in their perspective, promoting participation in community development decisions can include increasing or decreasing the roles of those already involved in planning and inviting more people into the process. Rothman (1981) and Hildreth (1972) argue that participation will vary, depending upon the development situation; in some cases it will represent a development goal and in others a means. Rothman describes three roles that participation can play in various development situations: "a goal in its own right"; a "constant, unvarying means," to satisfy philosophical and practical (legitimation) needs; and a "conditional means...to be employed selectively for certain goals and under given circumstances." The first role—participation as a goal—corresponds with development of community.

Regarding participation as a goal, Burns (1985) argues that "true" participation requires knowing and understanding not only what community members value and need, but what terms they prefer and what they mean by them: "Community members are the prime speakers" (205). He discusses a phenomenological develop-
ment model in which activists are available to "make the world available" to community members. This role requires helping community members articulate what they feel about their communities. Burns writes that:

[C]ritical to the fundamental approach of community development is its emphasis upon the active and substantive participation of people in the process. Community participation, or citizen involvement has in large measure become the motto of community development. Almost no discussion of a specific project or presentation of methodology is held without mention of how best to get the community involved. This is always the litmus test of whether an action was truly successful at bringing about the desired change or improvement. Success at achieving a worthwhile community goal without community members playing a vital role is typically not viewed as true community development. (Burns 1985, 65–66).

Benz (1975), arguing that development in the 1960s and 1970s focused too much on task, asserts that organizing to broaden participation in community decisions should be the primary goal of development. Furthermore, she argues, "true participation" will require redistributing power and wealth. Development, she states, must start with "discovering community," which will involve combining organization with participation.

Community development as organization. Benz stresses that community members should not only organize to increase their participation in planning, but they must stress participation in their organizing. Lenz (1988) similarly argues that community development should focus on organizing. Discussing the shortcomings of neighborhood development organizations (NDOs), he writes that "neighborhood development in the 1980s has been hampered by a faulty understanding of the political economy of poor communities by NDO staff and volunteers. Ignoring their roots in political protest and organizing, many NDOs have adopted a free market orientation that puts them on a collision course with their poor constituents" (24). The goals upon which community development frequently focuses, especially self-reliance, "are laudable, but do not describe the realities of economics and politics in poor communities." Thus, Lenz suggests an "organizing-driven model of community development," in which NDOs are adjunct but secondary to
community organizing. He encourages a willingness to use confrontational tactics and a wariness of "public-private partnerships," and he stresses the importance of understanding community action in the context of the larger social, economic, and political milieux. This model follows the tradition of Saul Alinsky (1971), who advocates organizing around specific, winnable issues. Tasks are not ends in themselves, but are focal points around which to organize and keep a community active. Mott (1986), discussing the future of community organizing, also stresses the roles of protest and political action in community action. He urges groups to find public and private support and concentrate on reforming and participating in community institutions.

In general, development of the community concentrates on the processes of planning development; it focuses on getting people active rather than completing specific tasks, a focus which some believe opposes a more "economic" focus. The following section discusses what some people believe to be a dichotomy between task and activism oriented development.

Reconciling the procedural versus substantive issue.

Which agencies (individual or group) plan development for a community condition what development will be, whom it will affect, and what the effects will be; similarly, the ability of a community to act together and confront everyday life problems affects development. Thus, the procedural question is significant. Yet, which "technical" or "economic" strategies a community picks for encouraging material or economic change will condition everyday life. Thus, the substantive question is also significant. Many authors argue that procedural and substantive perspectives oppose each other; thus, debate exists between some of the adherents of each. But, others seek to reconcile substantive and procedural foci. This section will review some literature discussing the dichotomy and its reconciliation.

The task versus process dichotomy. Benz (1975) writes that "[e]ffective skills are becoming increasingly synonymous with technical or quantifiable skills, including computer techniques or skills in architecture and design. Thus, emotive abilities
and talents for community organizing and leadership have been ignored, because their subjective nature does not accord with the traditional rational-empirical model of planning and policy" (116). Baum (1988) claims that many recipients of community services are discontented not only with an inequitable distribution of development resources, but are discontented with the ways in which practitioners plan development. Part of the problem is that many planners see themselves as technicians; technical problems are easier to confront than political or interpersonal problems (Baum 1988, 1990). Baum writes:

Planners' parts can be seen in the context of a lengthening debate over how planners should balance technical and political roles, as well as what proportions of planners actually are primarily technical, primarily political, or some mixture of the two...

The simplest contrast between the two views is that the technical world is a world of information calling for social organization. The technical landscape is lunar: all settings look pretty much the same. In contrast, in the political world, every context is different, shaped by the people who are bothered by something. Not only do these people have interests, but they also have passions. They care strongly about things, even irrationally so. Planning is probably easier in the technical world because it contains fewer things to calculate, although the effort required to overlook political interests and personal emotions is not inconsiderable. (1990, 64–65)

Baum advocates merging the two planning styles, but he stresses that planners must abandon their reluctance to participate actively in the political theatre if they wished to appeal to the public trust. He goes on, "[s]ubstantive fields have a way of coming and going and returning again...Traditionally, community planning has meant working with communities in primarily physical development. In addition, community planning must mean planning for the development of communities as social entities, because they support personal and social life" (1990, 66).

Others write of the dichotomy using characterizations like "task versus process" (Warren 1972, Weisner 1977), "self-help versus outside help" (Hildreth 1972), "participation versus intervention" (Rothman et. al. 1981), "technical" or "expert help" versus "self-reliance" (Burns 1985); "active" versus "substantive" development (Burns 1985), and "development of the community versus development in
the community" (Christenson and Robinson 1980, Summers 1986). Yet, while many of these writers discuss development planning in dichotomous terms, almost all of them imply or state that process and substance complement each other; in many ways they are inseparable aspects of development.

Substance and process within development. Authors generally place task oriented development within the process aspects—as process-building actions and as results and benefits of the process.

Weisner (1977) argues that, while "[a]rguments for either a task or a process approach have been a recurrent theme in community organization literature," researchers can join the two by establishing "some mutual goals for both approaches, particularly in the area of the observable behavioral responses of an affected target population. We suggest that the use of a behavioral evaluative measure can serve to synthesize these competing strategies" (662). Using Weisner’s suggestions, planners would erect an evaluative scheme, presumably including procedural and substantive concerns, by which they could judge ideas and actions. Using this strategy, communities could proceed by judging plans according to an agreed upon evaluative scheme instead of lumping them into one category of another.

Warren (1972) suggests that communities will reconcile task and process development in the process of building integration. He conceptualizes task projects as "episodic events" that are part of the larger process of community building, and in this way, they seem to be inseparable. Communities organize to complete tasks in order to organize, and so forth. Biddle and Biddle (1968) suggest this sequence in their description of a remote village's development. Though they focus on process, their process includes and does not seem separable from the task oriented projects central to the process building.

Warren's, Weisner's, and Biddle and Biddle's, discussions regarding reconciling task and process all hint at the social learning process that Hibbard describes. Though he presents his model in opposition to an economic development model,
his language suggests that the preferable model would emphasize task and process:

Building on widely held values and working with the locality to achieve its own objectives, the worker tries to structure situations through which community members, individually and collectively, gain the competence and confidence to solve community problems on their own when possible and through use of technical assistance where necessary. (Hibbard 1986, 197)

Friedmann works the social learning into his "transactive planning style" and his "household production of life" concept. In his discussion of transactive planning (1972), he seeks to join "experts and actors," reconciling the "requirements of learning" with the "requirements of action." His specific suggestions include joining small groups of everyday citizens with technical experts who can answer questions as citizen planners asked them. In a later writing (1989), Friedman elaborates upon this theme, arguing that activists working on the community level must "restructure for the self-production of life." That is, households must strive for self-reliance in all the social functions. This striving includes pursuing social intimacy, cooperation, exchange, and networking—in short, building community. And, this striving includes struggling to build self-reliance in the economic functions. Furthermore, Friedman argues, activists must work on regional levels—the "regional nexus of workplace and home." He argues for "communal" control over local activities, to be exercised by task oriented planning groups similar to those described in his transactional planning style.

Christenson (1980) and Burns (1985) also write of a synthesis between expert and local, everyday knowledge. In his review of community development literature, Christenson discusses three types of community development address in the literature: "conflict," which corresponds with a community organizing and process type focus; "technical assistance," which corresponds with an economic, task type focus; and "self-help," which Christenson characterizes as more process oriented. But, Christenson argues:

In all likelihood, many CD efforts will include elements of or a combination of the self-help, the conflict, and the technical intervention themes. Although practitioners may normally be skilled in one of these themes or
strategies, it will probably be helpful for them to develop skills in all three strategies. (Christenson 1980, 46)

Ross and Usher (1986) demonstrate that distinguishing between task and substance can be difficult in their discussion of the "informal economy," or "the domestic economy of the household and the local economy of the community" (4-5). They write:

In the informal economy, goods and services are often exchanged without money transactions. When money is involved, it is to facilitate exchange, not to increase profits, so the drive to accumulate capital for its own sake is not present. Whereas the formal economy focuses solely on output, in the informal economy, how things are done, who receives the output and how people relate to one another are as important as what is produced. Informal production is highly decentralized, performed in small units and under community or household control. The informal economy is owner-operated, whether the owner is individual, a household, or a community. (Ross and Usher 1986, 4-5)

Ross and Usher argue that during times of economic troubles, people are more likely to turn to informal economic production. "Informal production provides the most important safety net society has when the formal economy is depressed. And this activity should be supported (through social payments), not reduced during recessionary periods through budget cut-backs" (100). Stohr and Franz (1977) encourage development agencies to consider market and not market economy, and Ross and Usher encourage governments to adopt a "whole economy perspective" that would account for formal and informal economic activities and incorporate both in development planning:

In developing the economy we do not see informal activity as an alternative to or replacement for all current formal activity. But we believe that more of our economic and social needs should be met through increased informal activity. It is through greater informal activity that people seeking more social and human ways of relating to one another will have an opportunity to express these ways. (Ross and Usher 1986, 102)

Friedmann (1989), discussing a similar concept, refers to the "household production of life." He stresses the importance of communities strengthening themselves through developing local production, distribution, and consumption of goods and
services as well as expanding participation and local activism in planning decisions. Ultimately, Friedmann discusses local development in the context of a more general planning framework, including household, regional, national, and international planning and stressing the need for root social transformation.

Hildreth seems to summarize the debate between task and process when he writes that their roles will depend upon what the community picks as its ends. In some cases, practitioners, planners, citizens, and experts will view participation as the most immediate goals. In other cases, substantive issues may seem imperative. The community in question, of course, will decide which mix to adopt.

**Conclusion—integrating rural community development perspectives**

Effective development, by definition, will increase the well-being of a community. Though the phrase "well-being" is vague, it includes procedural, substantive, and environmental aspects, which various communities will define.

The United Nations sponsored World Commission on the Environment and Development (WCED 1989) includes these planning considerations in a general planning framework of "sustainable development." The WCED writes:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (WCED 1989, 43)

Sustainable development involves more than growth. It requires a change in the content of growth, to make it less material- and energy-intensive and more equitable in its impact. These changes are required in all countries as part of a package of measures to maintain the stock of ecological capital, to improve the distribution of income and to reduce the degree of vulnerability to economic crises. (WCED 1989, 52)

Yet it is not enough to broaden the range of economic variables taken into account. Sustainability requires views of human needs and well-being that incorporate such non-economic variables as education and health enjoyed for their own sake, clean air and water, and the protection of natural beauty. Changing the quality of growth requires changing our approach to development. (WCED 1989, 53)

Of course, the term "sustainable development" is vague (Cocklin 1989, Manning 1990). In general, analysts refer to two different uses of the term: operational
definitions pertaining to the maintenance of specific "resource sectors," such as fisheries, and "more holistic views of sustainability, which refer to the long-term maintenance of the full range of human and natural systems." The distinction between these two uses is important because the sustainability of a specific resource (within a defined time-frame) may compromise a larger, "holistic" sustainability (however that may be defined). But, this ambiguity need not prevent communities from pursuing their own sustainability. As Worster writes concerning restoration ecology and others wrote concerning social learning, communities must act tentatively, learning and adjusting as they go.

**Summary.** Of course, community development will vary depending upon political contexts, values, goals, economic milieux, labor conditions and profiles, resources, environmental aspects, and unforeseeable changes and events. And, various communities will include various task and process orientations. But, one constant exists: community development will occur in a social milieux.

The next three chapters discuss a methodology for planning and evaluating community development. Chapter four will discuss using social indicators to measure social and environmental conditions which defy defining; chapter five will discuss a methodology for applying social indicators to development; and chapter six will adapt this methodology to a community development context.
CHAPTER THREE: SOCIAL INDICATORS

I have argued in earlier chapters that, though "rurality" and "community" are important concepts to rural community dwellers and planners, defining these terms is elusive and somewhat impractical. In addition, I have argued that defining "development" is equally elusive. Ultimately, community values will decide the important aspects of rural, community, and development, and thus, development planners have no ideals of rural, community, development to guide their activities. Yet, they must have some concepts to guide them—some means to relate development with aspects of the community significant to its members. Social indicators offer a means to guide and measure the specific aspects of communities that development will affect, without requiring definitions of these aspects.

Generally stated, social indicators are measures of conditions and social changes affecting people, and as such, they include measures of the environment (physical and social) and measures of people's attitudes. They are often used to guide and monitor public policy, and development planners can use them to assess needs for and consequences of development and to improve future development efforts.

In this chapter, I discuss literature on social indicators. In the first section, I discuss the general purpose of the "social indicators movement"; in the second section I discuss some of the methodological concerns involved with social indicators; in the third section I discuss social indicators applied at the community level; and, I conclude with a short summary and discussion of the ideas relevant to community development.

The social indicators movement

Social scientists constructed the social indicators methodology as a means for measuring the significant social changes resulting from technological advances, especially those related to the United States space program. In their early writings, the social indicator researchers outlined most of the important
concepts which later researchers built upon.

In 1966, the American Academy of Arts and Sciences prepared the report Social Indicators (Bauer) for the National Aeronautics and Space Administration to discuss ways of measuring "the impact of the space program on American society." In the report, Bauer and other contributors "examine an issue of major importance in a society increasingly dominated by rapid technological change—the need to anticipate the consequences of that change" (Stevenson 1966, vii). He argued that, though technological development had critics, effective techniques to measure social change were lacking.

Thus, Bauer recommended constructing an "information system" comprised of "yardsticks by which to know if things are getting better or worse" (20). Bauer called these yardsticks social indicators, which he widely defined as statistics that measure and forecast change in relation to values and policy:

This volume is devoted to the topic of social indicators—statistics, statistical series, and all other forms of evidence—that enable us to assess where we stand and are going with respect to our values and goals, and to evaluate specific programs and determine their impact. (Bauer 1966, 1)

Bauer recommended constructing a "[r]egular trend series of social indicators, whereby comparisons from time to time and across societies could be made, [s]pecial mechanisms for [rapidly] gathering data on new developments falling outside those regular trends series, and some means of reporting this information back with appropriate speed, in appropriate form, to the appropriate agency" (Bauer 1966, 20).

Bauer emphasized the influence of social goals in constructing indicators. Thus, he suggested measuring general conditions rather than the effects of specific programs:

There could be two criteria for constructing such a general information system. One could be to build it to measure those effects that have specifically been postulated as stemming from the space program. I have just indicated our reasons for not following that
course. Since the extent of these effects is itself the subject of debate, the system of indicators must be broader than the range of effects postulated, if only to determine what the range is. The other could be to take as a point of departure those values, goals, and features of the society that we consider important in assessing the state and direction of the society. While such a general system could conceivably miss certain specific impacts of space exploration, it would nevertheless reflect those that we regard as important. At the same time, a more general system has the advantage of serving a multiplicity of purposes. (Bauer 1966, 2)

But, Bauer emphasized, because social indicators derive from values, political interests will influence data collection:

Statistics are gathered not out of a general sense of curiosity, but rather because it is presumed that they will be guides to planning and actions.

There is little doubt that the statistical series collected by the U.S. government (or by anyone else for that matter) reflect those areas of concern that have occupied the minds of the American people, though with some lag in time. But they reflect these interests unevenly, since the probability of a given statistical series being developed is also affected by: the articulateness and power of the group whose interest is involved; the susceptibility of the phenomenon to being measured; the extent to which the phenomenon is socially visible; [and] the preferences and skills of the agency personnel who gather the statistics. (Bauer 1966, 26)

Later writers affirm Bauer's assertion that social indicator models derive, explicitly or implicitly, from values (Fitzsimmons 1976, Schutz and Blakely 1980, Taylor 1980, Olsen et. al. 1985). Taylor (1980) writes that the "question of values perhaps looms largest in the development and applicability of social indicators. In this regard, and notwithstanding the diligence of researchers, it may be that technical and other problems associated with social indicators will be insignificant compared with the irregularities of their political and administrative processing" (240). Olsen also comments that researcher and politics mutually affect each other (Olsen et. al. 1985).

In addition to politics affecting data collection, Bauer wrote, they will affect reporting. Researchers and policy makers will craft statistics to "be per-
suasive," in order to affect policy:

[W]e have three factors inflating the reporting of social malignancies: built-in inflationary biases in the series themselves; a 'conservative' tendency of officials to report the worst...; [and, the tendency of the] public to become morally indignant...if data...[supposedly] condone immoral behavior. (Bauer 1966, 30)

Compounding the reporting problem is the public's unreasonable confidence in statistics. As Bauer put it, "[t]he minimum statement of the nature of number magic is that things that have been counted attract more concern than things that cannot or have not been counted" (30).

But, Bauer did not suggest that planners should abandon using social indicators; rather, he argued for using them with caution:

[O]nly by a hard analytical look at the role of statistics in our society, and a cold understanding of why they take the form they do, as opposed to some ideal scheme, can we proceed to a better system. (Bauer 1966, 34)

Similarly, Taylor (1980) writes, "[t]he solution probably lies in researchers and other being aware of their weaknesses in this area and at least making them explicit. Clearly some of the phenomena to which indicators refer will never be the subject for consensus" (238).

In another early piece on social indicators, Indicators of Social Change, Sheldon and Moore et. al. (1968), reflected many of Bauer's general philosophical views. But, Sheldon and Moore argued for broadening social indicators' roles beyond measuring policy effects to include measuring change in general. They wrote that social "indicators would give a reading both on the current state of some segment of the social universe and on past and future trends, whether progressive or regressive, according to some normative criteria" (Sheldon 1968, 3). The contributors went on to discuss some of the methodological concerns regarding social indicators, and they applied social indicator principles to various research areas. Some of these applications included areas as diverse as studying leisure time, equity in economic change, everyday life time budgets, and community change.
In *The Human Meaning of Social Changes* (1972), another early collection, Campbell and Converse, et al., introduced what they called "Quality Of Life (QOL) studies," using surveys and questionnaires ("subjective indicators") to measure people's feelings. In this text, the authors reinforced several of the themes presented by Bauer and Sheldon and Moore: social indicators should be descriptive (measuring current social conditions), dynamic (using repeated measurement to monitor changing social conditions), and relevant to social goals and policy (Campbell 1972, 2-3). However, Campbell and Converse et al. chose to focus on people's feelings rather than their surroundings:

Our purpose in the essay is to approach the concept of quality of life at a different level than that implied by the kinds of measures we have been discussing. We will be concerned with the quality of personal experience, with the frustrations, satisfactions, disappointments, and fulfillment that people feel as they live their lives in our changing society. Ultimately, the quality of life must be in the eye of the beholder, and it is there that we seek ways to evaluate it. (Campbell 1972, 442)

Thus, Campbell and Converse broadened the social indicators methodology to include a diversity of complementing measures; researchers could inquire into the physical, economic, and social consequences of development in addition to attempting to understand how people feel about such change, thus rounding out their evaluations.

These early works established the foundation for social indicators research, which has not significantly changed since then. Many later writers elaborate upon social indicators research, but the general message is the same. For instance, Taylor (1980) broadly defines a social indicator as "a label for any concept which attempts to describe some aspect of society." Land similarly defines social indicators as measures of "social conditions"—both "external (social and physical)" and "internal—subjective and perceptual" conditions (in Rossi and Gilmartin 1981, 16). Rossi and Gilmartin summarize the common traits of social indicator models:

Generally, social indicators are *time series* that allow comparison
over an extended period and can be *disaggregated* by relevant characteristics. Since they are time series, social indicators are measures that allow the identification of long-term trends, periodic changes, and fluctuations in rate of change. Since these indicators should be disaggregatable, they will usually be reported for specific variables of interest. (Rossi and Gilmartin 1980, 15)

According to Rossi and Gilmartin, some dispute exists on whether social indicators should include general, descriptive measures or strictly measures relating to policy. But, this debate is not really necessary. Social indicators comprise a methodology that researchers can use for whatever monitoring purposes they consider important. No one type of research precludes others. In general, social indicators represent a fairly simple methodology designed to measure a complicated social milieux.

Rossi and Gilmartin provide a typology to illustrate the various uses of social indicators. They acknowledge that the field is in flux, and they do not seek to present a definitive typology, but rather, seek to demonstrate some of the uses of social indicators by describing several ways indicators can be categorized:

- **Statistic vs. Indicator vs. Index**: A *statistic* is a measure in its rawest, least processed form...Statistics are combined, corrected, and refined to form *social indicators*. These procedures are designed to produce more stable measures whose values are less susceptible to irrelevant variatio....An *index* is a weighted combination of two or more indicators that is usually intended to summarize the status in some area of concern....(Rossi and Gilmartin 1981, 18)

- **Subjective vs. Objective**: *Subjective indicators* are based on the reports persons make about their feelings, attitudes, and evaluations. *Objective indicators* are based on counts of behaviors and conditions associated with given situations. (Rossi and Gilmartin 1981, 19)

- **Direct vs. Indirect**: A *direct indicator* is a measure of the variable itself... An indirect indicator is a measure of some other variable that is assumed (based on experience or theory) to be closely related to the variable of interest.... (Rossi and Gilmartin 1981, 19)

- **Descriptive vs. Analytic**: A social indicator that is not part of a theoretical framework or model is referred to as a *descriptive*
An indicator of a variable that is interrelated with other variables in an explicit theoretical framework is referred to as an analytic indicator. (Rossi and Gilmartin 1981, 20)

Input vs. Output: If a social process is defined and modeled in terms of a complex, adaptive system with inputs and outputs, social indicators can be distinguished according to what type of component they measure. (Rossi and Gilmartin 1981, 20)

State Occupancy vs. State Transition: State-occupancy indicators are raw numbers or numbers per population unit of persons who occupy a particular social status or have a particular attribute at a given point in time. State-transition indicators are raw numbers or numbers per population unit of persons who make a transition from one specified social state or attribute value to another within a specified time interval. (Rossi and Gilmartin 1981, 23)

Quality of Life: These indicators are defined and developed to measure aspects of individuals' lives that are important to them. Such indicators have attached normative values and have a "direction" in the sense that an increase in the value of the indicator is assumed to be good. (Rossi and Gilmartin 1981, 23)

Kenneth Land describes a more general typology, which includes three types of indicators:

[**Normative welfare**] social indicators are "target" or "output" variables, towards changes in which some public policy (program, project) is directed. Such a use of social indicators requires that (a) the society agrees about what needs improving; (b) it is possible to decide unambiguously what "getting better" means, and (c) a high degree of aggregation in the indicators exists to facilitate national-level analysis. (Land 1983, 4)

[**Satisfaction**] social indicators seek to measure psychological satisfaction, happiness, and life fulfillment by directly ascertaining the "subjective reality" in which people live. (Land 1983, 5)

A third approach to the definition of social indicators [**descriptive**] focuses on social measurements and analyses designed to improve our understanding of what the main features of society are, how they interrelate, and how these features and their relationships change. (Land 1983, 5)

While Land's typology categorizes social indicators according to how researchers will use them, Rossi and Gilmartin's categorize them more according to
what they measure. Both typologies have their uses and generally describe social indicators sufficiently to give an understanding of the various contexts in which researchers can use them. More importantly, they provide a set of terms to which discussions can refer.

In general, researcher and planners can use social indicators for a variety of applications. But, of course, all authors warn that they must be aware of some methodological concerns, some of which I discuss in the following section.

**Some methodological concerns**

In his early discussion of social indicators, Bauer (1966) discussed some general methodological constraints in using social indicators:

> [D]ata will be gathered only where there is reasonable consensus on three issues: the problem is important; there is some information which, if available, would be useful; and the relevant phenomena can be measured. We might further conjecture that identifying something as a "national goal" either reflects or produces a consensus that it is important, and thus stimulates efforts to identify relevant information and attempts to measure it. (Bauer 1966, 24)

Thus, what data researchers choose to gather depends upon who defines the problem and whether or not relevant phenomena are measurable. Fitzsimmons and Lavey (1976) similarly writes of the "three criteria of importance, availability, and reliability."

Sheldon deals with some of the more technical methodological issues involved in using social indicators:

> The measurement of social change shares with other targets for measurement a congeries of statistical hazards. The first of these rests in the relation between numbers and meaning. Statistical analysis deals with numbers produced by certain operations and conclusions, based on numbers relating to both the processes producing them and to the explanatory context from which they derive and to which they refer. (Sheldon 1968, 9)

Taylor (1980) also discusses this problem, writing that "[s]ocial indicators are essentially operationalized concepts which leaves the problems of collapsing qualitative data into quantitative terms" (232). (Fitzsimmons 1976 also
discusses this problem.) Taylor argues that social indicators are empirical measures of otherwise abstract concepts, and the relationship between indicators and concepts is often fuzzy:

An indicator is a sign, but not the thing itself. An indicator has an often undetermined relationship to the phenomenon that is to be conceptualized...If the underlying conceptual status of such indicators is vague then they will not be amenable to adequate interpretation. (Taylor 1980, 232).

Further compounding the problem, Taylor writes, is the tendency of some researchers to use a few indicators to measure a valued but conceptually tricky aspect of society, which in turn implies a reduced definition of that aspect. He writes that "concept reduction in the face of conceptual difficulties can raise more problems than it solves. Simplistic operationalized classifications are prone to error and often retard the search for better instruments or measures" (233). Taylor suggests explicating the relationships between indicators and more abstract concepts using indexes that will define the quantitative and qualitative relationships. If researchers cannot validly connect social indicators into one descriptive concept, then Taylor suggests a "multi-dimensional approach" in which researchers develop more than one index. To construct these indexes he urges researchers to use some theory on social causation. Without such a theory, Taylor argues, social indicators are too subjective and unlinked to a "larger norm structure."

Related to the problem of relating concepts to social indicators is what Ennis refers to as "untidy categorizations." (Other authors discuss this problem, including Baker and Intagliata 1982, who refer to "definitional ambiguity," and Cheng 1988.) Our everyday use of words belies easily graspable definitions, and, often, attempting to measure conditions that these words describe is difficult. Discussing leisure, Ennis points to the problem that categories of social behavior are difficult to separate from other aspects: "The variety of everyday words relating to leisure— recreation, relaxation, idleness, fun, play, games, entertainment, and diversion—underscores the
complexity of the subject." In addition, we associate leisure with other categories, such as "expressive behavior," but such behavior pervades and is not separable from everyday living, including work, from which we distinguish from leisure. He writes that the three central problems in defining leisure are finding sensible boundaries between leisure and other great categories of life; developing flexible and sensitive ways of deciding if something is or is not leisure; and reconciling the differences among the several aspects of leisure. (Ennis 1968, 526)

Ennis argues that the problem of untidy categorizations relates to the problems inherent in defining norms, and in general, the problem of separating distinct activities in everyday life. For example, defining leisure begs the question that defining any social concept begs: do distinct social entities—groups, activities, norms—exist in a categorical sense? And, if such entities do exist, how do we distinguish their members from other categories? In answering the first question, Ennis appeals to the traditional categories of social science, "the tripartite division of work, nurturance-maintenance, and leisure," which he claims "is the broadest categorization that has a viable tradition of usage in the social sciences. It is an approach that maximizes inquiry into the central question of how the restless, shifting quality of leisure is differentially defined by the values of those contexts" (531). Addressing the second question, Ennis describes a "modular strategy," or process of disaggregating social entities into smaller ideas and studying them. For instance, to study leisure he suggests studying "the life cycle of the individual or the family," noting the different ways activities affect people at different ages. ("School is liberating for adults yet coercive to children.") In addition, he writes that "the natural distinctions of leisure 'envelopes' should be maintained where feasible," such as "[t]he week day, the weekend, the vacation, and retirement." Finally, he suggests recording resource expenditures on particular activities traditionally considered within the
studied category (leisure in this example).

Ultimately, subjectivity plays a large role in defining what terms to which the researcher will assign indicators (Ennis 1968, Fitzsimmons and Lavey 1976). Ennis writes:

While these three guides help delimit the field there remains the alternate question of how to classify an activity...The answer has to come from either intuited or an empirically determined consensus. For the latter, periodic surveys on leisure are clearly necessary to clarify and refine the intuitions that will have to suffice until there is a stronger empirical basis for decision. (Ennis 1968, 567)

Another methodological concern is that specific changes will affect social systems differently depending upon other changes that are occurring. Thus, specific measures will not always indicate the same phenomenon, and researchers will reach different conclusions from the same indicators, depending upon other conditions (Sametz 1968, Fitzsimmons 1976). Sametz discusses the complexity of identifying indicators of economic welfare change when other conditions are changing. For instance, changes in national income (GNP) are a focus of economic indicators, but they vary in long term effect depending upon "prices and population changes" and changes in "the composition of inputs (or costs) or of output," tastes, or "constant social priorities" (77). Sametz writes, "[i]n short, since structural change is the essence of secular change, it must be accounted for" (Sametz 1968, 77).

Thus, Sametz argues for adjusting the measures: "Our principle concern is to develop a new set of accounts for use in analysis of problems in growth and development and for measuring changes in economic welfare." But, he points out, this undertaking is difficult. For instance:

Everyone agrees that output time series should be price-deflated, and many agree that output series should be converted to per capita form for growth or welfare measurement. But accurate price deflation is as difficult to do (over long periods of time) as it is universally agreed that it ought to be done; population deflation, on the other hand, is easy to execute but sometimes difficult to justify....
Although intuitively we assume correctly that a country whose output doubles while its population is not growing is "better off" than a country whose output and population double, the important "scale" issue is thereby neglected. Population increase has both benefits and costs. Population increase lowers current per capita output; but because of lagged increases in the working population, it leads to increased future aggregate output, perhaps in exponential fashion, if economies of scale in production are achieved thereby...Beyond some critical mass, it is appropriate to "deflate" output data for population increase if one is trying to measure standards of living and individual material welfare. This is especially true in a society in which hours of work (but not real income) are falling, and in a society in which there is by definition no labor shortage in which the social costs of "congestion" are rising....

On the other hand, no case can be made that price increases (unlike population income) ought [not] to be counted. The problem is, however, that our methods of price deflation cut the rate of real output advance excessively, for the indexes do not allow sufficiently for the improvement of quality in products and have difficulty with the introduction of new (presumably superior products). (Sametz 1968, 79-80)

Sametz offers no specific solutions, but rather, offers general hopes, apparently leaving improvement of measures to the ingenuity of future researchers:

My personal judgement is that, first, the advance of knowledge will more than suffice to offset the external diseconomies we are confronting, just as it offset the depletion of natural resources; second, that the increasing role of government in economic affairs will introduce representative social decision-making without sacrificing allocational efficiency; and third, that increasing equality of income and opportunity will make it more reasonable to imply increased social welfare from increases in the output indicator. (Sametz 1968, 93-94)

Another methodological concern is that, in some cases, the same measures indicate different conditions for different groups (Moss 1968, Fine-Davis and Davis 1982). For example, in his treatment of "assessing the severity of economic advantage and the extent to which it is changing," Moss (1968) discusses the difficulties of comparing "relative wealth" when changes in
income affect different groups in different ways (449). For several reasons, determining social welfare from income indicators is difficult: "income understates consumption by wide margins"; "in the low-consumption classes, the percentage of total consumption spent for food" varies depending upon family size; due to lack of knowledge, poor families are less likely to meet nutritional needs given the same food resources; many "U.S. families with incomes below the poverty line lived in housing that was dilapidated or lacked plumbing..."; and, "[p]rices paid by families at the lower end of the income scale averaged lower than families in the middle range of income" (462-463).

To clarify the relative differences in consumption between groups with different income levels, Moss advocates gathering detailed measurements on the relative consumption patterns of people in different economic groups. Thus, he recommends disaggregating populations into sub-populations by age, education level, and so forth, to learn the effects of the variables (that these categories imply) on income and consumption. Disaggregating groups and designing specific indicators for these groups will help in understanding their conditions. For indicating well-being and consumption, researchers should factor in different variables (for example, lower appliance costs and decrepit hygiene conditions for the poor) to more accurately infer conditions for the specific groups they are studying.

Sheldon refers to "problems of additivity," deriving from the variety of quantities available for measurement, for which few common denominators exist. While most economic studies could claim money as a common denominator, economists still face the problem of incomparability:

By translation into monetary terms, one can indeed add apples and oranges, horses and jet-plane trips, public welfare benefits and private savings. Of course, not all economic indicators are additive, and one must be cautious before excluding economists from the penance-box for sinful aspirants to social measurement. The production of kilowatt-hours per capita, or ton-miles of overland
freight, or portland-cement production, or freight-car loadings comprise quantities that are changeful and no more additive than crime rates, divorce and separation rates, the "birth" rate of new voluntary associations, and the average educational attainment of the adult population. (Sheldon 1968, 10)

Specifically addressing the additivity problems, Sheldon suggests indexing and correlating different indicators:

There are always available at least partial solutions to problems of adding unlike quantities, particularly in trend analysis. One such solution is the use of index numbers, pegged to a common temporal base, allowing the observer to sort out differential rates of change, and perhaps, some clues to temporal priorities—which changes lead and which lag.

Additionally, high correlations among some subset of measured observations originally thought to warrant individual inspection may permit the reduction of the series to a more limited number of indicators. We thus return to an earlier theme, the appeal of simplifying reduction of the great big buzzing confusion of social events. In the current state of the theory and art of social diagnosis, it would appear that such simplifying indicators must be established by inductive generalization, not by deductive derivation from established laws. (Sheldon 1968, 10)

Sheldon also alludes to "problems of frequency"—the problem of deciding when and how often to take measurements:

Take, for example, the practical (and theoretical) problem of the frequency with which observations of current states should be made, in order to detect and then generalize about the rates at which component structures change, and the sequences of change among the components...There is simply no a priori basis for determining the frequency of observation of any aspect of social behavior or function. Such a premise would require precisely what we lack—rates of change and their shape over various periods of time. (Sheldon 1968, 11)

On the problem of frequency, Sheldon offers little in the way of specific suggestions, but generally urge researchers to continue accumulating knowledge while balancing the need for thoroughness and practicality:

Short of a continuous and universal surveillance system, there is
likely to be no ideal solution to the problem of observational frequency.

We are impressed with the importance of approaching this problem *empirically*, in the strict and original meaning of the term—that is, attempting to achieve the maximum feasible frequency of observation, and then relenting when this produces scant evidence of short-term fluctuations. Where the reasons for short-term fluctuations are obscure...those fluctuations may hide underlying trends. (Sheldon 1968, 13)

Generally, Sheldon pleads for thoroughness, continuity, and breadth in data collection:

In addition to exploiting already collected data, more frequent collection, greater speed in availability, more detailed tabulations, and greater attention to future descriptive and analytic needs are recommended...

Analytical sophistication and adequate temporal series, however, do not provide all the necessary materials for charting the course of change, or for attempted intervention in that course in terms of policy. The answers to informational questions rarely can be better than the sense of the questions or the reliability of the source of information. (Sheldon 1968, 23-24)

In general most social indicator researchers concern themselves with the methodological issues of what questions to ask, what the relationships to these questions and social values are, and how to reliably answer these questions. These questions are general and apply to all indicator research. However, a particular branch of social indicators research—the use of subjective indicators—offers another set of questions.

**Subjective indicators.** In *The Human Meaning of Social Change*, Campbell and Converse introduced what they called quality of life (QOL) studies—a social indicators methodology that differed from studies in the previous writings. QOL researchers concern themselves with finding "social meaning" of change—what change means to subjects according to subjects. According to Campbell and Converse, research cannot get to the gist of QOL using measures that do not address subjects' feelings. QOL is related to people's
satisfaction, their perception of quality: "What we must recognize is that the overarching new goal of higher 'quality of life' is a more intensely psychological destination than the real-world helmsman has ever tried to find" (Campbell and Converse 1972, 10). And thus, "[i]t is in the psychological situation, the nexus of the individual and his environment that we look for the explanation of psychological change" (Campbell and Converse 1972, 11).

In other words, Campbell and Converse argue that QOL is, at least partially, what subjects perceive it to be, and our ability to deduce satisfaction from conditions separate from the subjects' perceptions is too limited. Thus, they urge researchers to supplement objective indicators (measuring conditions affecting subjects) with subjective measures of QOL (surveys, interviews, and questionnaires directly measuring subjects feelings). The terms subjective indicators and objective indicators refer to the foci of indictor studies. While subjective indicators refer to measures of subjects' feelings, objective indicators refer to measures of the conditions external to these subjects. Most authors agree that all indicators derive from subjective values, at the point of initial selection and at the point of calibrating data (Olsen et. al. 1985). But for convenience, they use the labels subjective and objective to distinguish between the two approaches.

Campbell and Converse argue for using subjective indicators because deducing people's perceptions of QOL from objective indicators is impractical:

We generally know very little about the detailed interplay between objective situations and the way people assess them subjectively, if the situations involved display much complexity at all. This fact can itself be put forward as a further argument for fresh study of this interplay. Such an argument would have little force if, as some thinkers have presumed, these subjective states are epiphenomenal, with behavior completely predictable given sufficient knowledge of the objective situations that underlie it. Recent social history has done little to reinforce this kind of philosophical position, however. We have become deeply impressed at the degree to which subjective states can "pull apart" from what might be deduced on the basis of our current ways of

Discussing this inconsistency, Campbell and Converse write that using subjective indicators is practical for determining QOL:

And while we might ignore subjective states on principle, trying to piece together patterns of objective conditions in ways that become more reliable and intelligible, there seems little point in doing so. Surely it is a short cut to study these subjective states more directly, with particular emphasis on how they interact with changes in objective circumstance. (Campbell and Converse 1972, 9)

Thus, the authors reason, the important task is to seek measures to determine what changes mean to a person:

We are interested in human meaning from at least two prime points of view. First, we are interested in the human meaning which human beings attribute to the complex and multifarious social environment in which they find themselves enmeshed: their communities; their lives at work and leisure; their understandings of group relations, the political process, and the consumer economy in which they participate; and so on. Second, we are interested in the impact that the various alternatives offered by the environment have on the nature of their lives, and the fulfillment of those lives. (Campbell and Converse 1972, 10)

Subjective indicator studies have persisted and their practitioners have constructed a sub-field within the social indicators field. Thus, a dichotomy persists through the social indicators literature (Hempel and Trucker 1979, Johnston 1981, Rossi and Gilmartin 1981, Land 1983, Kennedy and Mehra 1985, Lewis and Lyon 1986, Cheng 1988). Some authors claim that QOL studies constitutes a separate research fields (Schuessler 1985).

But, this dichotomy is unnecessary. Though the two methodological approaches focus on different measures—monitoring subjects and objects that
affect them, they both attend to the same end, monitoring different aspects of social change. And, they both derive from the social values that researchers assume are significant; in this sense, both types of indicators are subjective. Though the two "types" of indicators are used to measure different aspects of change, they are both social indicators.

While most of the literature separates subjective and objective measures, most researchers advocate using them both (Hempel and Trucker 1979, Fine-Davis and Davis 1982, Milbrath 1982, Kennedy and Mehra 1985, Olsen et. al. 1985, Lewis and Lyon 1986, Cheng 1988). While Sheldon and Freeman focus on subjective indicators, they did not claim that QOL derived only from psychological satisfaction. Rather, they believed that QOL was more encompassing:

In focusing attention on satisfactions and dissatisfaction, I do not wish to imply that perceived satisfactions can be equated in a simplistic way with quality of life. Satisfactions and frustrations depend jointly on objective reality on one side and aspirations and expectations on the other. Concern over the quality of life must include a hope for personal development beyond the individual's present limits of vision. Upgrading the quality of life implies the progressive liberation from the constricting limits of modest aspiration levels and increasing fulfillment of the human potential. (Campbell 1972, 442)

Kennedy and Mehra (1985) and Olsen et. al. (1985) argue that researchers can use subjective indicators within the context of objective indicators; that is, they can survey subjects about their feelings on environmental conditions that researchers are investigating using objective indicators. In order to get more continuity between the two types of indicators, researchers should disaggregate geographical areas into social groups and smaller areas (Kennedy and Mehra 1985, Lewis and Lyon 1986). Thus, community level studies may help associate objective conditions with their meanings to community members.

But getting at human meaning is difficult, and subjective indicator research
poses unique problems. Meyersohn (1972) discusses some of the problems involved with trying to measure people's feelings on leisure. Again, the difficulty lies in creating dichotomies to describe human activities and associating them with dichotomies to describe feelings. For example, many works associate a work-versus-leisure dichotomy with a dissatisfaction-versus-satisfaction dichotomy. Supposedly, satisfaction defines leisure, but in everyday life, productivity (including work) increases satisfaction. It seems that many of the characteristics that researchers use to define leisure are also part of work. In this case, definitions do not work.

Thus, Meyersohn argues for moving beyond ambiguous terms like leisure and monitoring more specific aspects of change. (Baker and Intagliata 1982 refer to this problem as "definitional ambiguity.") The process Meyersohn describes is a disaggregation process, in which researchers measure more specific aspects of social life. Meyersohn uses the example of measuring the amount of resources (time or money) spent on specific activities that satisfy survey respondents. This methodology does not require defining ambiguous terms like leisure. In addition, researchers can take a more inductive approach by asking people how they feel about what activities they participate in. Both these strategies represent an approach to measuring social conditions that does not require abstract categories.

Johnston (1981) and other contributors further discuss some of the methodological uncertainties involved with using "subjective" measures to determine QOL. They believe these studies are important because "subjective states and feelings are significant independent factors in shaping human behavior," but QOL studies need improvement:

...The large and growing body of literature relating to opinion polling and related methodological issues offers ample evidence that our ability to ascertain these public feelings and attitudes with reasonable precision and reliability leaves much to be desired. The conviction that public perceptions, feelings, and reactions are the right things to measure is of small comfort in the face of evidence
that such measures are unreliable or impossible to interpret. (Johnston 1981, xi)

Wilcox (1981) writes that three aspects of satisfaction survey studies determine their validity:

Do these measures of satisfaction adequately measure satisfaction?
Do they adequately capture respondents' perceived quality of life?
And, assuming favorable responses to the first two questions, What sense do they provide of quality of life per se? (Wilcox 1981, 2)

Wilcox, responding to the first question, cautions against using "satisfied versus dissatisfied" and similar continuums for several reasons:

1. Semantic ambiguities interfere with obtaining useful research results. For example, some studies use antonyms with vague relationships to each other (e.g. delighted-versus-terrible), while other studies use continuums with "privative opposites" (eg, happy-versus-unhappy). But, respondents will differently interpret these terms, and results will be vague. Or, some surveys use continuums with vague ranking terms, for example, "pleased" indicating more satisfaction than "mostly satisfied," again introducing differences in interpretation. And, they use continuums with adjectives that have various "dimensions" that do not necessarily correspond to other adjectives in the continuum.

2. Self-knowledge is not necessarily dependable. For instance, researchers use the phrase "positivity bias...to refer to the tendency of respondents to report greater happiness, satisfaction, well-being, and so on than they truly feel." Wilcox states that "[s]uch a bias, whatever its derivation, has serious implications," for obvious reasons. In addition, recent events, mood changes, and other short term determinants in people's lives may distort responses to surveys dealing with more general states.

4. People of varying emotional and behavioral development may similarly respond to questions, yielding deceptively similar survey results.

5. While many surveys use "levels" of satisfaction, changes in these levels may be more significant.
To adjust for these problems, Wilcox suggests conducting "methodological studies" to investigate how and why people interpret terms that surveys frequently use and to study "the pros and cons of labeling and category-versus-magnitude scaling" (13). To correct for the effects of positivity bias, Wilcox suggests a "strategy of multiple triangulation," in which "survey responses would be interpreted in the light of data gathered through in-depth interviews, observations of non-verbal communications, and other forms of behavior, analysis of written documents, role playing, and other types of experiments..." (13). To correct for the effects that varying emotional and developmental levels have on survey responses, researchers must correct for them using whatever scientific knowledge they have, and researchers should provide justification for measuring satisfaction levels instead of changes in satisfaction or study the changes.

In his discussion of the second level question, Wilcox writes that no acceptable theoretical basis exists for using many popular measures. Furthermore, he questions the claim that satisfaction is one of "the dimensions of perceived quality of life at all" (11). He concludes that "satisfaction measures are at best indirect indicators of perceived quality of life..." (Wilcox 1981, 9).

Regarding the third question of whether or not satisfaction can measure QOL, Wilcox answers no, on philosophical, job security, and epistemological grounds:

....In addition to rendering much expertise irrelevant (including that of social scientists), the notion that welfare can be subjectively determined would also render most philosophical discourse on ethical and moral issues irrelevant. What would remain would not be much more than a combination of ethical relativism and metaethical emotivism.... (Wilcox 1981, 10)

Wilcox further argues that judging a nation's quality of life on an aggregate of individual responses to satisfaction surveys is "an example of individualistic fallacy" and dubious, especially when policy may derive from that judgement. Policy requires a more thorough assessment (11).
Responding to the issues he addressed on levels two and three, Wilcox writes that "stronger emphasis on conceptual explication is needed in future work of this kind" (14). He argues that:

Judging quality of life, whether generally or specifically, is a task that inherently resides in a complex process of philosophical, theoretical, and empirical discourse whose primary participants are indeed experts...Indeed, little consensus has emerged over the identity of the experts, although one might speculate that a complex configuration of philosophers, scientists, and humanists would be a place to start... (Wilcox 1981, 15-16)

The general message is that social indicator practitioners must be as specific as possible, but they will identify the categories they define for research according to values. That is, they will choose indicators to measure categories of social phenomena that they construct according to their value-based sensibilities.

On the community level, social indicators practitioners will face many of the same methodological concerns as will general social indicators researchers. But, most community social indicators applications are part of project planning and evaluation models and therefore are more specific and relevant to more specialized populations. The next section focuses on some of these concerns.

Community level social indicator models.

Fitzsimmons and Lavey (1976) write that "social indicators are descriptive in that they relate to the formulation and evaluation of social objectives and social policies." Several authors have suggested guidelines and models for applying social indicators to community planning and evaluation, and most explicitly mention integrating subjective and objective indicators. Keczmerski and Sorter (1984) argue for supplementing interviews to "find out how residents feel about their neighborhoods" with indicators on "the physical condition of the study area" (196 and 198). Cheng writes:

When combined with objective social indicators, subjective quality of life measures can be extremely useful in refining one's perspec-
tive about the needs of a community.

Very seldom...can we have clear-cut criteria in judging the quality of community conditions reflected by the indicators. What we have to do is to use our heads. A planner should pull together all the information; identify areas which are relatively satisfactory/unsatisfactory (subjective) and adequate/deficient (objective); consider the resources available, the significance of various needs, and related social, economical and political issues; and then come up with an integrated recommendation. (Cheng 1988, 132)

Milbrath (1982) suggests such a model to study "the ecological aspects of the quality of life" using "both subjective and objective indicators" (136-137). His model uses interviews and "aggregate statistics that have been gathered by the census and economic data-gathering agencies" to measure nine aspects of community quality of life. The model includes individual and community measures of the "physical, economic, and social situation (demographic variables and information on dwellings, work places, and social networks); lifestyles (time budgets, values regarding time spent, relevant goals, "lifestyle constraints," and so forth); beliefs about how the world works; goals, values, and aspirations; quality of life (objective measures combined with global and domain specific subjective measures); and "personal and societal learning" (142-152).

He writes that this model is important because it analyzes quality of life for communities or individuals. This breadth of analysis is important, because "there are interactive effects between individual experiences of quality of life and community experiences of quality of life. Personal experiences of quality of life are always imbedded in and affected by community structures and processes" (137).

Baker and Intagliata (1982) similarly describe a quality of life methodology for evaluating "community support systems." Their "conceptual model" divides the community into four foci: 1. the "environmental system," which primarily consists of the "objective environment"; 2. the "experienced environment," or "what goes on within the person, particularly in terms of
the perceived attributes of the physical environment" (material and social); 3. the "bio-psycho system," or "individual internal states and health status"; and, 4. "behavior, or "the behavioral outcomes of the person's encounters with various environmental situations" (72–74).

Baker and Intagliata argue that their model has several advantages. The most important is that QOL measures provide a broad assessment rather than a complicated collection of particular measures. They argue (perhaps unconvincingly) that complex development programs yield "outcomes difficult to measure directly," and thus, a simpler aggregate measure is desirable; the QOL framework is attractive because it is a "multi-dimensional measure" for assessing "the synergistic interaction of a number of smaller, less powerful outcome variables" (70). In addition, a QOL model focuses on "keeping the customer happy" and is thus "good politics" (70).

Colley (1975) suggests using a "social change index"—a composite of "continuously reported social change indices"—to measure community conditions and predict civic problems. The index, to be used as a basis for social planning, combines social indicators into an index number for each sub-community, and thus provides a sense of which areas most need development. Practitioners weigh data components according to their preferences of importance. Though differences in values will make constructing a "completely acceptable index" impossible, a practical index is possible. Using this model, Colley argues, community practitioners can achieve "a means by which current social data may be regularly and economically gathered" and "a technique of combining this data into a representative index which would reflect social conditions for each community" (98).

Schutz and Blakely (1980) outline a "Public Marketing Model...designed to test the capacity of a local government to transform its structure and processes to meet resident needs" (194). This approach has several components. The "Policy Structure Design Component" consists of a "team of local
administrators, elected officials, and research staff with the responsibility to organize and implement the project" and serve as a "catalyst for policy and institutional change within the bureaucracy" (195). The "Policy Institution Development Component" consists of a "Citizens Goals Committee to work with the City Planning Commission and City Council" with the purpose of "incorporating citizen needs with the city's planning process" (195). The "Policy Planning Component" links civic goals to planning by having city department and agencies designate "participants in the goals project... with specific responsibility to develop goals, timetables, and budgets based on the outcomes of the civic goals project" (195). The "Policy Needs and Communication Component" assesses needs, formulates goals, and solicits community response to the goal formulation process using a combination of questionnaires, "town meetings, newspapers, television, and a community brochure" (195). The public marketing model combines these components to construct a needs and goals profile, using an indicator structure, which in turn, guides the planning process.

Schutz and Blakely argue that their model diminishes expert control and realistically attends to citizen needs by using the citizen goals committee, which in turn assesses the community using "policy indicators" meaningful to citizens and government workers. Social indicators derive directly from community goals.

Fitzsimmons and Lavey (1976) describe a system they call a "social economic accounts system (SEAS)"—a "comprehensive social indicators system that planners can use to guide community development. The SEAS involves two steps: organizing a "structural scheme of categories" (in this case, a social system model, dividing the community into sectors) and selecting criteria for social indicators to measure aspects of the sectors that are relevant to investment. An SEAS must be community wide and relevant to projects, "systematic in its approach to causality," sensitive to varying sites,
"applicable to time series," and "oriented to comparison" (399). Three roles that such a system "can fulfill in the project planning and evaluation process" are the "pre-investment phase," the "interim evaluation phase," and the "final evaluation phase" (396).

Fitzsimmons and Lavey argue that by offering a "comprehensive approach to community data," their system will make measuring "the total social costs and benefits of a program" possible, because it will provide "a framework with which we can understand the meaning of statistics." And, because values form the basis for picking and interpreting social indicators, the SEAS provides a framework with which practitioners can incorporate values into their data collection.

Finally, Olsen et. al. (1985) describe a "value-based community assessment process"—an "integrated process for performing community assessment that combines objective and subjective components of both quality of life and social impact studies within a framework of community values" (326). The four steps in this model include: 1. "scoping," in which the community indicates its values; 2. identifying community features, using social indicators derived from the community value profile; 3. describing the community's state, derived from the indicators; 4. appraising community conditions; 5. planning community action; 6. action; and, 7. monitoring, again using indicators.

Olsen claims that "[t]o make wise decisions about community planning and development, public officials and community leaders need information that can be provided by a comprehensive community assessment" (325). Olsen argues that his model will meet this need and will be a framework through which researchers and developers can communicate. In addition, it conforms to community values and designates indicators according to them.

Olsen and other community social indicator practitioners attempt to construct models that will use indicators to inform community researchers
about community conditions. Through these models, the authors attempt to relate social indicators with significant community values, and in doing so, confront the most significant methodological concerns associated with social indicators.

**Conclusion**

Most of the methodological questions related to social indicators have to do with identifying the relationships between indicators and the significant social (or physical) aspects with which researchers associate them. The questions have to do with what indicators inform us on these more abstract aspects. The questions concern what indicators indicate.

These relationships between abstract social attributes and empirical indicators depend upon the values of the social indicators practitioners. The practitioners decide what aspects of the environment are important, what indicators inform these aspects, and what the relationships are between these aspects and their indicators.

Many community social indicator models suggest that community actors, compelled by community values, will make these associations. But, these models do not suggest how these practitioners will make these decisions. That is, they do not explicate how practitioners pick indicators vis-a-vis community values. Further, these models do not explicate how community actors will relate action to social indicators and the social aspects they indicate.

Thus, community practitioners could use a framework to specify how values relate to social indicators and how social indicators relate to action. In the next chapter, I discuss a hierarchical planning process—a framework for relating values, social indicators, and action.
CHAPTER FOUR: THE HIERARCHICAL PLANNING PROCESS

The hierarchical planning process (HPP) is a "methodology which relates goals and programs"; its designers intended for planners to use it to derive actions from goals by disaggregating goal statements into sub-goals (i.e., more specific word groupings), sub-goals into social indicators, and social indicators into "action variables" (i.e., actions that affect conditions as represented by social indicators). (United States Department of Interior (USDI) 1971, cover). Planners can also use the hierarchical planning process to compare alternative actions and their affects on other actions, social indicators, sub-goals, and goals. This chapter discusses the HPP.

Background of the Hierarchical Planning Process

During 1970-71, the Technical Committee of the Water Resource Centers of the Thirteen Western States produced a report (hereafter referred to as the Peterson Report) for the Office of Water Resources Research of the United States Department of the Interior. The purpose of the report was to develop "techniques for estimating the potential of water resources development in achieving national and regional social goals" (USDI 1970, cover). In the Peterson report, the technical committee described a "hierarchical planning process" (HPP) for planning water development, which would help accomplish two sub-purposes. First, the HPP would operationalize policy statements by deriving specific actions from general goal statements; it would define policy goals in operational terms. Thus, the HPP would help planners move from relatively subjective goal statements to more objective action statements, effectively linking values to knowledge and action. Second, the HPP would help forecast national and regional water policy consequences; it would project specific effects of generally stated goals. In the words of the Committee, the Peterson report "continues the tradition of attempting to perfect the evaluation of consequences, or in other words, the evaluation of the impacts of water policy and actions upon the promotion and maintenance
of the general welfare" (USDI 1971, 10). In general, the Technical Committee sought to reduce the ambiguity and redundancy in the water policy planning process.

The committee devised the HPP in response to what its members perceived as a planning process that was iterative, redundant, vague, and generally cumbersome. In the Peterson report, the Technical Committee sketched a description of water policy planning processes for "a specific location or a general evaluation of a set of problems on a national basis":

After some reasonably clear charge is given to a planning agency or group, a team of professionals is assembled. The team may or may not be multi-disciplinary. The team leader... is almost always an engineer. There may or may not be sub-leaders in the organization of the team. The job of defining the alternatives to be studied almost always falls to the engineers on the team. If other disciplines are involved, they are usually charged with studying the results of specified alternatives on physical or social processes...

A great many alternative schemes of development and management may be considered at the detailed planning level...An evaluation is made at the team leader (or a lower) level concerning which of the alternatives considered is the best or which members of alternative sets are the better ones. This choice is made for two reasons: it is difficult to transcribe all the thoughts that the planning team ever had; designing (choosing) is a professional instinct of the engineering staff. The team leader reports information about the selected plan or plans to his superior. That superior may be dissatisfied with all alternatives or the one presented to him and require the development of new ones; if there are several alternatives he may select one of them for either further presentation to the chain of command or more detailed study. The superior will only infrequently report all the alternatives to his superior. He believes his function is to screen and select. The process may be repeated several times...In addition to the screening function the multiple levels of supervision seem also to have a rewriting function. Their intent may be to make the report clear and concise and to make the planning effort described therein seem to have been well managed. These intentions usually result in the presence of less and less hard information in the report as review processes proceed... (USDI 1971, 19–20)

Thus, according to the Technical Committee, the planning process in-
volves an "information handling" problem:

What is wrong with the present screen, report, screen, report, etc., process? First, it creates an inverse relationship between the level of decision maker and the number of alternatives available for him to consider. Second, it can result in the redoing of considerable planning work. (USDI 1971, 20)

Thus, the committee devised the HPP as a guide to constructing an information handling system that will provide information for decision-makers on all levels. The HPP helps project relationships between policy, action, and effects of action; using it, planners can estimate "connectives between the actions considered and a greater number of social indicators than are now usually estimated," and, optionally, "provide sets of routines...which the planner may either use or adopt for use" (USDI 1971, 20). The committee stressed that any set of projected actions necessarily remains incomplete, because of the variety of possibilities; the information system is not a simulation model, but rather an aid to planning.

In devising the HPP as a "planning information system," the Technical Committee hoped to reduce technical planners' ideological influence by limiting choices to those responsive to social goals articulated in the goals hierarchy:

To the extent that constraints on the kind of action considered are placed on the planner, the current planning system and the modified planning system we suggest here are not value-free. But if constraints are not set to rule out solutions which are, in some sense, promising, but only to rule out alternatives which seem not to be responsive to goals, the process will be relatively value-neutral (USDI 1971, 20).

Description of the Hierarchical Planning Process

The Technical Committee developed an HPP with "four major components": a hierarchical set of goals and sub-goals; a list of social indicators which generally should be quantifiable; a list of policy action variables, each describing some proposed water related governmental action; and a set of connectives." However, the committee stressed, "a relatively complete
planning methodology...will ultimately involve more elements, particularly in the sphere of decision-making” (USDI 1971, 15).

In this section, I will describe the process of disaggregating goals into sub-goals and sub-goals into social indicators (SIs); the process of relating SIs to action variables; the process of defining connectives; and the process of defining the relationships between goals, sub-goals, SIs, and action variables.

**Disaggregating goals, sub-goals, and social indicators.** Planners can use goal disaggregation to "convert an array of goals into a hierarchical model...to facilitate clearer and more systematic evaluations of goals and goal structures" (USDI 1971, 10). In general, most people will agree on goals, though they will often disagree on goal definitions and the "means and alternative ways of attempting to realize the stipulated goals." These areas of potential disagreement are, of course, the settings for political decision-making.

Referring to this difference between agreeing upon goals and their definitions, the Committee made distinguished between goals, which are generally "independent of policy," and objectives, which refer to "a particular policy, program, or project" (USDI 1971, 12).

Within the HPP context, goal disaggregation begins with defining "historically universal" goals—"the ultimate aims of society...which must be fulfilled if society is to remain viable" (USDI 1971, 10). Two such aims are "the maintenance of security" and "the enhancement of opportunity," which the Technical Committee associated with its widest aim, "the promotion and maintenance of the general welfare" (USDI 1971, 10).

In its example, the "Straw Man," the Technical Committee disaggregated these aims—security and opportunity—into national goals with "historical precedent, present concern, and future viability" (USDI 1971, 10):

From the two qualities **opportunity** and **security**, the Technical Committee derived nine word groups which were not necessarily mutually exclusive. It felt that these adequately defined the domains of security and opportunity. These nine prime goals are listed as follows (not necessarily in order of importance):

- [List of nine prime goals derived from opportunity and security]
1) environmental security  
2) collective security  
3) individual security  
4) economic security  
5) cultural and community opportunity  
6) aesthetic opportunity  
7) recreational opportunity  
8) individual freedom and variety  
9) educational opportunity (USDI 1971, 23)

After defining national goals, the disaggregation continues, yielding sub-goals, which planners further disaggregate into social indicators:

The defined domain of national goals may be identified by listing sub-goals which determine their achievement; thus a hierarchical set of goals is obtainable [and] at some point in the disaggregation process of defining goals' domains a measurable subordinate should usually appear.

Logical disaggregation of goals proceeds from the general to the specific; from the whole to the parts; from the subjective to the objective; from the non-observed to the observed; and thereby from the non-measurable to at least the partially observable. (USDI 1971, 10)

Though the Technical Committee referred to these measures as social indicators, it used the term social indicators more inclusively than the usual sense of the term denotes. Thus, in this use, a social indicator can be a measure of environmental conditions in terms of averages or specific times and places. As the committee described the process of disaggregating goals into indicators, it can be quite subjective:

Given this list of nine overarching goals—"the goals set"—the Technical Committee attempted to define each one's domain by identifying word groups which would form the contents of each overarching goal. Of course, such a procedure is fraught with subjectivity and the possibility of serious omissions. This procedure is obviously analogous to developing an outline. (USDI 1971, 23)

In developing Straw Man, the committee also encountered the problem of creating an endless number of goal descriptors:

Following the tentative listing of sub-goals, further disaggregations were made to identify each sub-goal's domain. The basis of these
successive disaggregations was a) logical subordination and b) completenes.
ness. At first the Committee attempted to disaggregate as completely as possible. But very soon it became apparent that complete disaggregations would involve massive stratification of sub-goals. It was also found, as successive disaggregations were undertaken, the degree of arbitrariness in both strata and word group categories increased to a point exceeding human comprehension.

An alternative tack was taken which rested on the following principles. The first was to disaggregate each goal until the emergence of a readily measurable subordinate or social indicator (or group of social indicators) which could be assumed to be closely associated with the last disaggregated sub-goal. The second was to stop disaggregating whenever there appeared to be practically no connection between the sub-goal set being disaggregated and public or private water resources activities. (USDI 1971, 23)

Thus, to avoid an unwieldy number of SIs, the Technical Committee imposed three conditions: stopping the disaggregation process once a measurable indicators became apparent; including only indicators the committee could associate with goals; and excluding indicators that did not directly connect with "water resource activities."

To summarize Straw Man, the Technical Committee presented a table describing three layers: a goal layer, starting with the seven national goals; a sub-goal layer, and a social indicator layer. (See Table 4-1, pages 86–87 for a partial listing of goals, sub-goals, and social indicators from the Straw Man example.) The committee stressed that it only meant for Straw Man to illustrate the disaggregation process, and thus, the example is not complete. The table describing Straw Man only includes three layers, though the Technical Committee acknowledged that a real application may have many layers of goals, sub-goals, sub-sub-goals, social indicators, sub-social indicators, and so forth.

The committee acknowledged several weaknesses in the disaggregation process they used to derive Straw Man (USDI 1971, 27). The first group of related problems results from the tactics used to limit the number of social indicators that the disaggregation process yields: stopping disaggregation after
TABLE 4-1: Selected listing of goals, sub-goals, and disaggregated national level social indicators by goal category. (Excerpted from USDI 1971, 24.)

<table>
<thead>
<tr>
<th>GOAL</th>
<th>SUB-GOAL</th>
<th>PARTIAL LISTING OF SOCIAL INDICATORS</th>
</tr>
</thead>
</table>
| Environmental Security        | Improvement in air quality    | Concentrations of oxides of sulfur  
Concentrations of oxides of carbon  
Concentrations of ozone  
Concentrations of various hydrocarbons, fly ash, particulate matter |
| Improvement in water quality  |                               | Biochemical oxygen demand  
Microbial products  
Suspended solids  
Alkaline liquids  
Thermal discharges |
| Flora and fauna               |                               | Variety of types  
Extent of types |
| Geographic environmental security |                               | Extent of groundwater mining  
Climatic variation and temperature  
Rate of occurrence of earthquakes |
| Economic Opportunity          | Freedom of contract           | Employment and service contracts  
Contracts involving delivery and transfer of goods |
| Investment opportunity        |                               | Amount of public investment  
Investment opportunity created  
Energy use investment opportunities  
Recreation investment opportunities  
Opportunity to invest in goods handling  
Investment in reducing effluent produced by industry  
Land available for investment |
| Equality of economic opportunity |                               | Government contract provisions  
Number of government employees  
Number of government contracts awarded by competitive bidding  
Number of people or corporations with opportunity to invest |
| Economic choice by consumers  |                               | Variety and price of foods  
Variety and location of housing  
Kinds of appliances usable |
TABLE 4–1, continued.

<table>
<thead>
<tr>
<th>Cultural / Esthetic Opportunity</th>
<th>Standard of living</th>
<th>Esthetic Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoyment of amenities</td>
<td>Per capita income levels</td>
<td></td>
</tr>
<tr>
<td>Preservation / Restoration of areas of natural beauty</td>
<td>Distribution of income</td>
<td></td>
</tr>
<tr>
<td>Community cooperation</td>
<td>Stability of income</td>
<td></td>
</tr>
<tr>
<td>Diversity of cultural and community opportunity</td>
<td>Price stability</td>
<td></td>
</tr>
<tr>
<td>Equality in cultural and community opportunity</td>
<td>Services and goods required to survive</td>
<td></td>
</tr>
<tr>
<td>Esthetic opportunity</td>
<td>Rate of economic expansion</td>
<td></td>
</tr>
</tbody>
</table>

| Esthetic enclosures             | Transportation capabilities (location and accessibility to arts and nature) |
| Aesthetic developed areas       | Number of areas of natural beauty |
| Natural areas                   | Number of community projects |
|                                | Community size and population dispersion |
|                                | Participation levels |
|                                | Participation costs |
|                                | Transportation capabilities |

|                              | Location and accessibility |
|                              | Structure |
|                              | Public hearings |

| Buildings                     | |
| Facilities                   | |
| Dams                         | |
| Waterways                    | |
| Coastal facilities           | |
| Erosion control              | |
| Storm drains                 | |
| Wastewater collection        | |
| Air pollution                | |
| Pollution of soil mantle     | |

| Location and accessibility   | |
| Amount of public interest    | |
| Complements natural surroundings | |
| Undeveloped areas—potential | |
| Developed areas—potential   | |
| Undeveloped areas—damaged   | |
| Capacity of routes           | |
| Quality of routes            | |
deriving an initial layer of indicators can neglect disaggregated layers of social indicators that could yield more detailed information and be easier and less expensive to obtain than the more aggregated indicators; insisting that social indicators must relate directly to sub-goals can cause planners to miss indirect but important connectives between indicators and sub-goals; only using SIs directly relevant to water policy (or any prioritized policy) may neglect important SIs and sub-goals; and, planners may simply overlook important indicators.

The committee suggested that planners can ameliorate these weaknesses by using two strategies. First, by starting with the proposed action variables and working up to determine how they affect goals, planners might forecast effects that are not directly relevant to conditions described within the goal disaggregation and discover indirect connectives. Second, by looking to social indicator research for applicable indicators, planners might discover social indicators that they would otherwise not think of.

The second problem related to the Committee's disaggregation process is inherent in defining measures of dynamic, externally integrated systems; deciding what specific time references or physical qualities characterize a chosen "condition" is difficult:

Definitional problems associated with timing, locational, and other aspects of the social indicators are not clearly specified, even in the preceding disaggregation. [The indexing code] specifying changes in sulfur oxide concentrations must connote not only average but also peak concentrations and length of exposure. Thus, each social indicator can be viewed as a vector of more specific social indicators giving content to the initial one. (USDI 1971, 28)

Because gross indicators do not yield information that is specific enough, planners must be more precise in defining the parameters of the indicators. But with greater precision comes another problem; aggregating the results of several social indicators into a clear statement about their effects on a sub-goal's (or upper level social indicator's) status is difficult:
But, with greater precision in the set of social indicators comes greater ambiguity in the signs of the relationships between those indicators and sub-goals. (USDI 1971, 28)

The committee sought to remedy this problem by prioritizing certain sub-social indicators or bringing attention to ambivalent effects on sub-goals by their social indicators:

This problem can be resolved potentially in two ways. First, a set of weights could be established to relate the specific social indicators to their more general counterparts. For example, if weights (explicit) were established on the basis of health statistics indicating the trade-off between length of exposure, peak concentration, and average concentrations, these weights would resolve the possible problem of incongruity in signs. This is so with transitivity; only a single sign need be specified between the sub-goal of improved air quality and a weighted index of sulphur oxide.

A second approach would relate each of the specific social indicators to the sub-goal set through signs, and then enumerate the impacts and possible incongruities induced by different signs. Both approaches will undoubtedly be used when planning methodology is implemented since weights may exist in certain instances, but not in others. (USDI 1971, 28)

Thus, while producing a simple hierarchy relating specific conditions to goals may not be possible, planners can disaggregate goals into tangible conditions that they can affect with policy. At this stage, the next step is to determine what actions will affect goals.

Identifying action variables. Action variables are potential actions that can affect conditions as defined by social indicators (and sub-goals and goals). The following excerpt reflects the complex relationship between social indicators and action variables:

An action variable somehow affects a member or members of either the social indicator set or sub-goal set without itself being a member of either set. In certain instances there will be a one-to-one correspondence between the action variable and the social indicator. One partial empirical measure of an irrigation project would be the number employed on the project. However, if those employed could not be employed elsewhere, there would be a one-to-one correspondence between this partial measure of an action variable set and a
social indicator, employment. There apparently is no objective dividing line between action variable and social indicator except perhaps that the action variable is always the initial source (sometimes measurable) and the social indicator is a measure of effect. (USDI 1971, 15)

Thus, an action variable can affect more than one social indicator, and an action can be a social indicator in that an action can be a condition, indicating that social conditions (as described by indicators) are dynamic and imbedded in social processes. Another attribute of the term, "action variable," as the Technical Committee used it, is that it can denote a different than usual meaning of variable:

The action variable may or may not be a "variable" in the usual sense of that word. For example, kilowatt-hours of electrical energy available per year is a variable in the usual sense; a change in electrical energy distribution policy is certainly an action which can be taken but is not usually defined as a variable in the algebraic sense. It is impossible to define once and for all the limits or domain of the action variable set. The alternative actions that the planner may consider are limited by: administrative policy constraints he considers applicable to the situation; the geographic realities of the area for which actions are being considered; the legal interpretations extant and applicable at the time and place; and his ingenuity. (USDI 1971, 15)

In general, action variables are components of policy, and as such, they are subject to the constraints and conditions of policy, the consequences of which the HPP is intended to forecast.

Once planners disaggregate goals into sub-goals and social indicators, and forecast how specific actions will affect them, they must somehow relate all these causes and effects together. The Technical Committee described a system using "connectives," by which planners may assemble such a model of cause and effect.

Connectives—relating the parts of the goal hierarchy. Connectives are the causal relationships between any parts of the goal hierarchy, and as such, are elusive:
A connective is the link between: an action variable and a social indicator; two social indicators; or a social indicator and a sub-goal. Connectives have many different forms, but it is impossible to anticipate all of them since it is impossible to anticipate the complete composition of the alternatives which comprise the action variable set. The connective may be simple: if fertilization, cultivation, and irrigation practices are held constant quality, there would be linear relationship between water available and crop production. It may be of a binary nature: if a dam is built and no fish passage facilities are provided there will be no anadromous fish upstream. And a connective may be a mathematical programming routine: the cost of a scheme which has other effects on the social indicator set could be minimized in certain cases by using linear programming. (USDI 1971, 15)

The list of possible connectives is long because they "define the interdependencies within and between the action variable set, the social indicator set, and the goal set":

For the goal set, internal connectives emerge in five directions. These five types of connectives include:
1) connectives among the nine overall goals;
2) connectives among sub-goals within one category;
3) connectives among sub-goals in different overarching goal categories;
4) connectives among sub-goals and the overall goal of a category;
5) connectives among sub-goals in one category and the overarching goal of a second category.

For the social indicator set, internal and external connectives emerge in three ways:
1) connectives between social indicators...;
2) connectives between the social indicator set and the policy action variable set...;
3) connectives between the social indicator set and the goals set...;

The action variable set also contains two types of connectives in addition to those listed under social indicators:
1) connectives between the policy action variables...;
2) connectives between action variables and objectives directly where there is no meaningful social indicator which defines the extent or domain of the objective. (USDI 1971, 16)

To illustrate how connectives relate the various parts of the goal hierarchy, the Technical Committee constructed tables of connectives in which each axis
represented one of the levels (social indicators, sub-goals, or goals):

A further step is to illustrate how the four basic components (connectives, objectives, social indicators, and action variables) might fit together. For illustrative purposes, all connectives will be assumed to be linear coefficients although not necessarily quantitatively measurable. We have assumed linearity and continuity for the ensuing discussion, but this does not mean we believe that a planning structure would necessarily have these properties. (USDI 1971, 16).

In their model, the Technical Committee first used matrices to relate "column vectors," each of which included the members of one of the hierarchical levels. Thus, the committee used equations to relate social indicators with sub-goals, sub-goals with goals, and so forth. Then, the committee used matrices to relate the more removed column vectors to each other, for example, social indicators to goals, by solving for the column vector representing the highest hierarchical level (e.g., goals).

But, committee members recognized that, often, relating members of sets quantitatively is not practical (or possible). Thus, planners must sometimes denote coefficients (connectives) by sign, yielding positive and negative relationships between the members of the hierarchical levels; though quantifying the relationship between overarching goals and social indicators is not always practical, "a reasonable, qualitative, and subjective relationship by sign is possible" (USDI 1971, 28).

To illustrate the process of forecasting connectives between the parts of a goal hierarchy, the Technical Committee constructed two tables—one relating action variables to social indicators and one relating social indicators to sub-goals. (See Tables 4–2 and 4–3, pages 93–94, for partial examples.) Though the Technical Committee did not know the specifics of these connectives, that is, their sign or quantitative relationships, it did attempt to establish which parts would relate to each other in some way, and they hoped to further clarify these relationships in future reports (USDI 1971, 28).

An important set of relationships that the Technical Committee neglected
TABLE 4–2: Partial example of connectives between action variables and social indicators. (Xs represent direct relationships.) (Excerpted from USDID 1971, 29.)

<table>
<thead>
<tr>
<th>ACTION VARIABLES</th>
<th>SOCIAL INDICATORS</th>
<th>Ability of firms to employ</th>
<th>Ability of individuals to be employed</th>
<th>Nature of contracts for service</th>
<th>Nature of contracts for tangible goods and assets</th>
<th>Nature of contracts for financial assets</th>
<th>Individuals access to development</th>
<th>Availability of inputs</th>
<th>Type of production technology</th>
<th>Amount of output</th>
<th>Quality of output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navigation systems</td>
<td>X X X X X</td>
<td>X X X X X X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canals and locks</td>
<td>X X X X X</td>
<td>X X X X X X</td>
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<td>Channel improvements</td>
<td>X X X X X</td>
<td>X X X X X X</td>
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<tr>
<td>Port Facilities</td>
<td>X X X X X</td>
<td>X X X X X X</td>
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<tr>
<td>Flood control systems</td>
<td>X X O O</td>
<td>O X X O O O</td>
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<tr>
<td>Dams and Reservoirs</td>
<td>X X X X X</td>
<td>X X X X X X</td>
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<tr>
<td>Waterways</td>
<td>X X O O</td>
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<td>Land-use controls (easements)</td>
<td>O X O O</td>
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<tr>
<td>Flood plain management</td>
<td>O O O O</td>
<td>O O O O O X</td>
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<td>National flood insurance</td>
<td>O O O O</td>
<td>O O O O O X</td>
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<tr>
<td>Land Stabilization</td>
<td>O O O O</td>
<td>O O O O O X</td>
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<tr>
<td>Recreation areas</td>
<td>X X X O</td>
<td>X X X X X X</td>
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<tr>
<td>Public access facilities</td>
<td>X X X O</td>
<td>X X X X X X</td>
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<tr>
<td>Fisheries</td>
<td>X X X O</td>
<td>X X X X X X</td>
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<tr>
<td>Wildlife preserves</td>
<td>O O O O</td>
<td>X X X X X X</td>
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<tr>
<td>Wild and scenic rivers</td>
<td>O O O O</td>
<td>O O O O X X</td>
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<tr>
<td>Water supply systems</td>
<td>X X X X</td>
<td>O X X X X X</td>
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<tr>
<td>Water diversion</td>
<td>X X X X</td>
<td>O X X X X X</td>
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</tbody>
</table>
TABLE 4-3: Connectives between sub-goals and social indicators. (Xs represent direct relationship; Os represent no direct relationship. Excerpted from USDI 1971, 30.)

<table>
<thead>
<tr>
<th>SUB-GOALS</th>
<th>SOCIAL INDICATORS</th>
<th>Ability of firms to employ</th>
<th>Ability of individuals to be employed</th>
<th>Nature of contracts for service</th>
<th>Nature of contracts for tangible goods and assets</th>
<th>Nature of contracts for financial assets</th>
<th>Individuals access to investment</th>
<th>Availability of inputs</th>
<th>Type of production technology</th>
<th>Amount of output</th>
<th>Quality of output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom of contract</td>
<td></td>
<td>XX XX XX XX</td>
<td></td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Investment opportunity</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Economic choice for consumers</td>
<td></td>
<td>XX XX X O</td>
<td></td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>X XX O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Economic choice for producers</td>
<td></td>
<td>XX XX X O</td>
<td></td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Standard of living</td>
<td></td>
<td>XX O O O</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X XX O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Enjoyment of arts and nature</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Creativity</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Community cooperation</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Diversity of cultural opportunity</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td></td>
<td>O</td>
</tr>
<tr>
<td>Enjoyment of design</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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</tr>
<tr>
<td>Access to recreation opportunities</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>O</td>
</tr>
<tr>
<td>Quality of recreation opportunities</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>X XX O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Equality of recreation opportunities</td>
<td></td>
<td>XX O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Variety of recreation activities</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Freedom of choice</td>
<td></td>
<td>XX XX XX X</td>
<td></td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Freedom of movement</td>
<td></td>
<td>O O O O O</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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</tr>
</tbody>
</table>
included the connectives between action variables. Simply stated, some action variables will enhance others, some will interfere with others, and some may not (apparently) affect others at all. But, whatever the relationship(s) between action variables, planners should have some idea of what they are.

To clarify connectives between action variables, planners can construct tables. As with the tables connecting sub-goals and social indicators, a table establishing the connectives between action variables would allow planners to view all their chosen action variables in relationship to each other. (As with the other tables, the qualities and quantities of these connectives are adjustable.) (See Chapter Five for examples of these tables applied to rural community development.) Also, in a development situation, as planners acquire new information or insight, they might need to change the quantities and qualities of the connectives with which they are working. But, adjustment is the nature of planning and is expected.

Once action variables and all the connectives have been established, the planners must implement their programs. How they do so is a large question contingent upon all the constraints—political, economic, and so forth—that typically determine (i.e., limit) the development process.

A note on applying the hierarchical planning process

As the Technical Committee specified, the HPP is an information handling and reporting system. How the development participants designate planners, define goals, implement action, and, in general, implement the planning process are procedural questions that the Peterson Report does not address.

Another important issue is how the HPP generally relates to social reporting and forecasting processes and specifically to the social indicators field.

Conclusion

The HPP seems to complement the general body of social indicators
literature in that it corresponds well with the value based character of social indicators. To begin with, the HPP attends to the normative requirements of social indicators research by beginning the disaggregation process with defining goals. A social group reflects its norms when it identifies its goals in that, generally, people base their goals on their values. Of course, the HPP offers no guidance for determining a group's values and goals. This matter is procedural, and to address it, planners should use inductive methods—surveys, interview, and so forth—to determine the values and goals with which they should begin the disaggregation process.

Also, the HPP complements social indicators literature in that it offers a format for interpreting values into indicators. Furthermore, the disaggregation process allows planners to attend to the special measurement needs of specific contexts and groups. On the other hand, neither the HPP nor the social indicators literature indicate how planners should derive social indicators from goals other than specifying that they will choose logical subordinates. It seems that this step requires some common sense and good judgement that is not especially amenable to specification. In addition, as the Technical Committee suggested, planners could consult social indicators literature to learn what social indicators have already been used in specific contexts.

Another area of disagreement between the Peterson Report and the social indicators literature is the difference between Bauer's preference for measuring general conditions and the Technical Committee's tactic of limiting the social indicators list to those indicators directly connecting to water policy. But, this difference is reconcilable. The committee used this strategy when constructing its model goal hierarchy, and it did not specify that the HPP depended upon this limiting tactic. By its design, the disaggregation process is especially amenable to reporting general conditions, at least those relevant to general values, because it begins with those values. No rule
specifies that planners must limit their indicator list to those indicators connected to a specific project. (Such a rule would presuppose a project design and would preclude the process of measuring conditions for the purpose of determining needs.)

Finally, the Peterson Report does not attend to the technical details like frequency of measurement, correcting positivity bias, and so forth. But, the purpose of the Committee was to offer a general planning framework, assuming that planners would work out the technical details.

Thus, it seems that the HPP is a good tool, in general, for reporting social conditions and planning action. The question that arises, then, is how the HPP can inform rural community development. The next chapter offers a model of applying the HPP to such development.
CHAPTER FIVE: THE HIERARCHICAL PLANNING PROCESS
APPLIED TO RURAL COMMUNITY DEVELOPMENT

The Hierarchical Planning Process (HPP), designed as a framework to derive
development activities from a value structure, provides a planning
methodology with which practitioners could plan community development.
This chapter suggests an HPP adaptation for community development. The
first section illustrates a community development application of the goals
hierarchy framework. The second section describes a framework planners can
use to gather information and ideas, facilitate participation, and make
decisions using an HPP for community development.

A community development HPP example

To demonstrate the disaggregation principle as it applies to community
development, I use my own interpretation of community development
goals, sub-goals, and social indicators. I am not implying that this interpreta-
tion is the "proper" interpretation, or that a proper interpretation exists.
Communities seeking to use a hierarchical planning process will create their
own goal hierarchies. And, I am not trying to be comprehensive. In a
community development situation, a goal hierarchy structure will be more
elaborate than this example, especially in designating social indicators. But,
while this example is not comprehensive, it illustrates the disaggregation
process.

The first part of the example is a disaggregation of goals, which I derive
from the general aim, "Community vitality." (See table 6–1, pages 99–101.) I
put this disaggregation in the form of a table, of which the components are
goals, sub-goals, sub-sub-goals, and social indicators. I place goals in the far
left column, sub-goals in the next column to the right, and indicators to the
right of their respective sub-goals. In some cases, I use sub-sub-goals, which I
place under and slightly to the right of their respective sub-goals. Most of my
indicators are general, though in practice, a community would have to
<table>
<thead>
<tr>
<th>GOALS</th>
<th>SUB-GOALS</th>
<th>SOCIAL INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viable economy</td>
<td>Thriving formal sector.</td>
<td>Acceptable number of people using foodbanks, free kitchens, etc.</td>
</tr>
<tr>
<td></td>
<td>Consumer needs met.</td>
<td>Acceptable number of people applying to homeless shelters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of people applying for public health services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of people applying for public assistance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with basic needs (food, clothing, housing, water quality, hygiene and health needs).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable income levels.</td>
</tr>
<tr>
<td></td>
<td>Adequate production/distribution inputs.</td>
<td>Income from exports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infrastructure measures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Labor profile (education level, etc).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial and tax conditions.</td>
</tr>
<tr>
<td></td>
<td>Consumer needs supplemented.</td>
<td>Significant production/distribution outputs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community/individual gardens.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Production co-ops.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Services networks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neighborhood renovation/mainten.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Services networks.</td>
</tr>
<tr>
<td></td>
<td>Adequate production/distribution inputs.</td>
<td>Land, tools, seed, instruction, transportation, skills.</td>
</tr>
<tr>
<td>Wide participation.</td>
<td>In planning decisions.</td>
<td>Public hearings.</td>
</tr>
<tr>
<td></td>
<td>In government funded programs.</td>
<td>Advisory councils.</td>
</tr>
<tr>
<td></td>
<td>In non-government organizations</td>
<td>Broad representation in non-profits' boards of directors and staffs.</td>
</tr>
<tr>
<td></td>
<td>In economic production.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In formal production.</td>
<td>Worker owned businesses.</td>
</tr>
<tr>
<td></td>
<td>In informal production.</td>
<td>Worker participation in production decisions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community input on pollution/and esthetic issues.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questionnaire measures</td>
</tr>
<tr>
<td>Participation in politics.</td>
<td>Various socioeconomic statuses represented.</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Variety of candidates.</td>
<td>Both genders represented.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All colors and cultures represented.</td>
<td></td>
</tr>
<tr>
<td>Wide participation in</td>
<td>Registration reflects population.</td>
<td></td>
</tr>
<tr>
<td>election process.</td>
<td>Voting represents registration.</td>
<td></td>
</tr>
<tr>
<td>Participation in</td>
<td>Street parties, dances, etc.</td>
<td></td>
</tr>
<tr>
<td>informal activities.</td>
<td>Sporting events.</td>
<td></td>
</tr>
<tr>
<td>Participation in</td>
<td>Interview and questionnaire testimony.</td>
<td></td>
</tr>
<tr>
<td>group recreation.</td>
<td>Group art and literature activities.</td>
<td></td>
</tr>
<tr>
<td>Neighborhood/</td>
<td>Ethnic products exhibits.</td>
<td></td>
</tr>
<tr>
<td>friendship networks.</td>
<td>Art and crafts exhibits, concerts, plays,</td>
<td></td>
</tr>
<tr>
<td>Participation in</td>
<td>readings.</td>
<td></td>
</tr>
<tr>
<td>&quot;cultural&quot; activities.</td>
<td>Workshops.</td>
<td></td>
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<tr>
<td>Group artistic activities.</td>
<td>Literature and arts publications.</td>
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<td></td>
<td>Ethnic food fairs.</td>
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</tr>
<tr>
<td></td>
<td>Ethnic craft and art shows.</td>
<td></td>
</tr>
<tr>
<td>Ethnic diversity</td>
<td>Participation in programming etc.</td>
<td></td>
</tr>
<tr>
<td>activities.</td>
<td>Participation in editorials/coverage</td>
<td></td>
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<tr>
<td>Extensive mutual aid.</td>
<td>Hospice services.</td>
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<tr>
<td>Material aid activities.</td>
<td>Social interaction activities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for victims.</td>
<td>Legal and counseling services</td>
<td></td>
</tr>
<tr>
<td>Aid for victims of</td>
<td>Shelter.</td>
<td></td>
</tr>
<tr>
<td>domestic abuse.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aid for economic/</td>
<td>Shelter and other basics.</td>
<td></td>
</tr>
<tr>
<td>catastrophic victims.</td>
<td>Counseling, job networking, etc.</td>
<td></td>
</tr>
<tr>
<td>Support for newcomers</td>
<td>Material aid and social interaction for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>newcomers.</td>
<td></td>
</tr>
<tr>
<td>Guided social control.</td>
<td>Acceptable violent crime rates.</td>
<td></td>
</tr>
<tr>
<td>Police services.</td>
<td>Acceptable property crime rates.</td>
<td></td>
</tr>
<tr>
<td>Citizens safe from police.</td>
<td>Protection from human rights violations.</td>
<td></td>
</tr>
<tr>
<td>Table 5-1, Continued.</td>
<td></td>
<td></td>
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<tr>
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<tr>
<td><strong>Quality education.</strong></td>
<td><strong>Quality public schools.</strong></td>
<td></td>
</tr>
<tr>
<td>Citizens safe from police, continued</td>
<td>Testing scores.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Artistic productions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parental and student satisfaction.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proportionate number of students of color, age, gender, culture, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Absence of police harassment and other human rights violations.</td>
<td></td>
</tr>
<tr>
<td>Quality primary and secondary schools.</td>
<td>Adequate number of programs.</td>
<td></td>
</tr>
<tr>
<td>Access to adult literacy programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community demonstration projects.</td>
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<tr>
<td></td>
<td>Home production, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Various conferences.</td>
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<tr>
<td></td>
<td>Adequate number of group counseling/workshops on domestic issues.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Available individual counseling.</td>
<td></td>
</tr>
<tr>
<td>Quality media (radio, television, papers).</td>
<td>Community services.</td>
<td></td>
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<tr>
<td></td>
<td>Coverage of local issues.</td>
<td></td>
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<tr>
<td></td>
<td>Allow community input.</td>
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</tr>
<tr>
<td><strong>Esthetic and environmental quality</strong></td>
<td><strong>Quality in public places.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clean streets, alleys, lots, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green public places (trees, shrubs, etc.).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality parks (number of, etc.).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality recreational facilities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sports parks, etc.</td>
<td></td>
</tr>
<tr>
<td>Quality zoning.</td>
<td>Encourages foot traffic and mixed use neighborhoods.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clean industry (including visually).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes conservation.</td>
<td></td>
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<tr>
<td>Quality building codes.</td>
<td></td>
<td></td>
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<tr>
<td>Quality air.</td>
<td>Low levels of undesirable particulates.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes many sub-indicators.</td>
<td></td>
</tr>
<tr>
<td>Quality water.</td>
<td>Low toxicity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate supply.</td>
<td></td>
</tr>
<tr>
<td>Preservation of sensitive urban ecological sites.</td>
<td>Waterways, pockets of native plants, wildlife.</td>
<td></td>
</tr>
<tr>
<td>Open spaces restoration.</td>
<td>Adequate number of wildplaces.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Game preservation activities.</td>
<td></td>
</tr>
<tr>
<td>Energy conservation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial inputs conservation.</td>
<td>Inputs decreasing for specific products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landfill space conservation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reducing use of space.</td>
<td></td>
</tr>
<tr>
<td>Open spaces conservation.</td>
<td>Lack of absurd and gaudy billboards</td>
<td></td>
</tr>
</tbody>
</table>
further disaggregate indicators.

In the second part of the model, I relate some of the social indicators to some action variables, using a table with social indicators on the horizontal axis and action variables on the vertical axis. (See Table 5-2, page 103.) I use this format because many action variables affect more than one social indicator, and a table shows the relationships without listing action variables more than once. Since this table is only meant to demonstrate the idea of relating indicators to action variables, I only include some of the indicators in the disaggregation example, some of which I lump. Further, I only include connectives that are relatively direct. To suggest how action variables might affect social indicators, I use the symbols "+," "−," or "∞" to indicate positive, negative, or relatively uncertain relationships. Obviously, this table will not be precise, but it should illustrate the HPP.

In the third part of the model, I use another chart to relate action variables to other action variables. (See Table 5-3, page 104). The symbols have the same meanings for this chart as they have for the first chart.

Some notes on the model. The example disaggregations follow from a general aim that I believe to be agreeable: to encourage community vitality—the community's capacity to live and develop.

Choosing goals is more difficult; it requires articulating what I mean by community vitality. The first five of the goals I chose loosely correspond to Warren's (1972) concept of locality-relevant functions. I feel most community development participants would agree that the community can and should enhance these processes. To these five sub-goals, I add esthetic and environmental quality, which are important to a vital community, but which the locality-relevant functions do not directly address.

When disaggregating these goals, some characteristics of the process become apparent:

1. The goal and sub-goal categories are not discrete; various goals and sub-
### Table 5-2: Example of connectives between action variables and social indicators.

<table>
<thead>
<tr>
<th>ACTION VARIABLES</th>
<th>SOCIAL INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build small-business incubator</td>
<td>Acceptable number using emergency services +</td>
</tr>
<tr>
<td>Recycle center (pickup/process)</td>
<td>Acceptable number on public assistance services +</td>
</tr>
<tr>
<td>Start household production organization (to supply tools, training, materials, promotion, distribution, etc)</td>
<td>Acceptable income level +</td>
</tr>
<tr>
<td>Organize barter market</td>
<td>Acceptable neighborhood conditions +</td>
</tr>
<tr>
<td>Build/restore greenways/parks</td>
<td>Acceptable public input to local government -</td>
</tr>
<tr>
<td>Build recreational facilities</td>
<td>Acceptable public input to non-profits +</td>
</tr>
<tr>
<td>Organize cultural events/festivals/exhibitions</td>
<td>Community/individual patients +</td>
</tr>
<tr>
<td>Promote community as quality place to visit and invest</td>
<td>Available group/individual counseling +</td>
</tr>
<tr>
<td>Start adult literacy programs, literary groups, skills training</td>
<td>Green public places/parks +</td>
</tr>
<tr>
<td>Expand library, telecommunications center</td>
<td>Clean industry (including visually) +</td>
</tr>
<tr>
<td>Establish advisory councils, town meetings, public hearings</td>
<td>Acceptable water and air pollution +</td>
</tr>
<tr>
<td>Create shelters/resource networks for victims</td>
<td>Preserving aesthetically pleasing sites, waterways, pockets of native plants, wildlife +</td>
</tr>
<tr>
<td>Regulate/monitor pollution</td>
<td>Government buildings using vernaculars and/or solar energy +</td>
</tr>
<tr>
<td>Zone and use building codes for conservation/environment +</td>
<td>Reducing use of landfill space +</td>
</tr>
</tbody>
</table>
TABLE 5-2: Example of connectives between action variables; vertical axis affects horizontal axes. (+) indicates positive relationship, (-) indicates negative relationship, (w) indicates uncertain relationship.

<table>
<thead>
<tr>
<th>Build small-business incubator</th>
<th>Recycle center (pickup/process)</th>
<th>Start household production organization (to supply tools, training, materials, promotion, distribution, etc)</th>
<th>Organize barter market</th>
<th>Build/re-greenways/parks</th>
<th>Organize cultural events/festivals/exhibitions</th>
<th>Promote community as quality place to visit and invest</th>
<th>Start adult literacy programs, literary groups, skills training</th>
<th>Expand library, telecommunications center</th>
<th>Establish advisory councils, town meetings, public hearings</th>
<th>Create shelters/resource networks for victims</th>
<th>Regulate/monitor pollution</th>
<th>Zone and use building codes for conservation/environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build small-business incubator</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<td>+</td>
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<tr>
<td>Recycle center (pickup/process)</td>
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<tr>
<td>Start household production organization (to supply tools, training, materials, promotion, distribution, etc)</td>
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<td>Organize barter market</td>
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<td>Build/re-greenways/parks</td>
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<tr>
<td>Build recreational facilities</td>
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<td>+</td>
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<tr>
<td>Organize cultural events/festivals/exhibitions</td>
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<tr>
<td>Promote community as quality place to visit and invest</td>
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<td>+</td>
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<tr>
<td>Start adult literacy programs, literary groups, skills training</td>
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<tr>
<td>Expand library, telecommunications center</td>
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<td>+</td>
<td>+</td>
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<td>+</td>
<td>+</td>
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<tr>
<td>Establish advisory councils, town meetings, public hearings</td>
<td>+</td>
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<tr>
<td>Create shelters/resource networks for victims</td>
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<tr>
<td>Regulate/monitor pollution</td>
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<tr>
<td>Zone and use building codes for conservation/environment</td>
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goals will share their subdivisions with other sub-goals. (The Technical Committee's Straw Man example shares this characteristic, as in the case of the sub-goal "individual income," which falls within the sub-goals of "economic opportunity" and "individual freedom.")

2. The division between sub-goals and social indicators is not always clear. For example, I use "Variety of exports/exporters" to indicate the sub-goal "Significant production/distribution outputs," but "Variety..." could as easily be a sub-goal.

3. Many indicators can have several sub-measures. For example, many measures are possible for "Income levels." Practitioners might use mean or median levels, they might use only non-farm employment income, or they might use aggregated per capita income. Likewise, they might use satisfaction indices.

4. Better data will be available for some indicators than it will be for others. For example, finding data to measure "Income from export manufacturing or services" might be more difficult than finding income data.

5. As I discussed in the "Social Indicators" chapter, problems will arise in choosing indicators and articulating how they relate to sub-goals and goals. For example, practitioners will have to decide which income from exports is significant. Should they count income that goes to profits or salaries paid to people outside the community, or should they only count income community members receive?

Planners using the HPP will necessarily confront these issues. How the community agency will resolve the issues will depend upon the participants' context— their values, political relations and process, social and ecological constraints. My model will remain vague, for two reasons. First, it is my derivation, and thus, no community process or context is involved. It is only an example. Second, a complete disaggregation would be cumbersome. Since the model is only an example of a fairly straightforward idea and not part of a
real planning process, it remains vague.

Some issues also arise in choosing action variables:

1. In a rural community development situation, many tasks will directly and indirectly affect indicators relating to different goals. In this sense, many action tasks will serve various functions (probably planned and unplanned).

2. An action variable will affect one social indicator one way, affect another social indicator different way, alter the effects of other action variables, and so forth. Other action variables will have different affects. And, people and agencies will have differing perspectives on what the effects will be and whether or not they are negative or positive, good or bad.

3. Connectives are difficult to determine, especially as they become more indirect. As the Technical Committee indicated, establishing whether connectives are positive or negative is difficult, especially because action variables will affect social indicators or other action variables in direct and indirect ways. And, action variables may affect social indicators differently when actions accompany other actions than when they are alone.

4. In a practical situation, many tasks will consist of many sub-tasks and maybe even disaggregations of these sub-tasks.

5. In such a situation, many sub-tasks of one task will also be part of other tasks.

As with issues regarding disaggregation, the community agency will necessarily address these issues in its own way. In my model I take some liberties. First, I lump many of the action variables. Again, the model is an example, not a blueprint for rural community development. Second, I use vague language to describe action variables. For example, I use the word "encourage" throughout the disaggregation. When I write "encourage...," I mean increase spending upon it, teach people what they need to know about it, organize people, construct a network, and research, or any combination of these activities that seems appropriate. So, many possibilities are available
within each of my action variables. The tables should indicate that complexities are involved in determining how action variables relate with social indicators and other action variables.

Of course, constructing a rural community development HPP will require a process, and each community's process will reflect its dominant values. Below, I construct some possible guidelines for a planning scenario.

A planning scenario.

This description of a planning scenario using the HPP assumes that a practitioner or agency exists who is willing to use the format. It does not inform the process (if any) by which the community-at-large chooses the agency or its framework, which, from a process perspective, is an important omission. But, within the HPP planning scenario, plenty of flexibility exists with which to include participation.

An agency, for the purposes of this exercise, changes throughout the development process. At the beginning of the process, the agency is any group or individual who initiates rural community development. But, as participation widens, the agency broadens to include all of those who are involved.

In order to describe this scenario, I will divide it into several steps, which I will first outline and then discuss, step by step. Of course, in the everyday world where development will occur, these steps will not be separate. Rather, steps will share tasks; work towards some steps will influence and further work towards other steps. In addition, the process will be iterative and conditional; the results of some steps will influence the forms and results of others. And, since development does not end, practitioners will continue to repeat steps (one would hope).

The outline:
1. Preliminary evaluation. This step involves constructing a goals hierarchy and using it to measure community conditions.
2. Development activity planning. This step involves comparing community goals with conditions and prioritizing development activities.

3. Action. This step is fairly straightforward and task oriented.

4. Monitoring. This step involves using social indicators to measure the results of changes (resulting and not resulting from action). It also attempts to locate relevant effects that the social indicators failed to measure.

5. Reevaluation. This step involves reevaluating sub-goals, social indicators, and action variables and making appropriate changes.

Preliminary evaluation. This step involves the community in defining a preferred community environment. An agency (a voluntary organization, a government employee or group, a business group, and so forth) chooses from a selection of information and idea gathering strategies to determine the community's development values, goals, and perceived needs. The strategies to choose from include (among others) questionnaires, surveys, and informal and formal interviews. From this information, the agency must derive a goal set (or hierarchy).

To determine and reach agreement on goals, sub-goals, and social indicators, the practitioner has a variety of strategies from which to choose. One possible strategy simply involves the planning agency disaggregating the goals without any contribution from the community. Other strategies offer greater opportunities for public participation.

The Nominal Group Technique (NGT) is a process by which "experts" can meet to make group decisions (Dietz and Pfund 1985). In Dietz and Pfund's description of this process, an agency assembles three panels, each consisting of one particular type of expert—administrators and academics, project staffpersons, and project recipients (community members). A mediator explains the process and asks the panel members to answer a specific question (for example, what sub-goals make up a particular goal). Within each panel, each member writes a list of answers. Then, each member, in turn, presents
one answer to a panel mediator, who records it, and the process continues, each member contributing one answer per turn, until the panel members have voiced all their answers. The panel discusses the answers, and then each member makes a new list of answers, ordering them from most to least important. (Dietz suggested listing three answers.) The mediator ranks all answers according to their total weights and presents them to the rest of the group. Though the NGT is usually a project assessment technique, Dietz and Pfund argue that project developers can just as easily use it as a "scoping" technique for discovering important issues (such as the meanings of a particular goal).

Another decision model is the Delphi technique, in which an agency queries experts on an issue, the experts reply, the agency assembles the answers and submits them to each of the experts, and the experts reply again. Project agencies usually use the Delphi technique to assess projects, but Rauch (1979) discussed a "Decision Delphi," in which experts actually make policy. He argued that the delphi process always has the potential of creating a "self-fulfilling prophesy," and that thus, planners can use the technique explicitly for that purpose. This idea fits well with the HPP, in which planners derive action variables from sub-goals, which are thus directly related to development policy.

Once the agency has constructed the goal hierarchy, it can measure community conditions using the social indicators within the structure. Adhering to some basic principles might help. The Technical Committee (USDI 1971) suggested two principles that would limit social indicators to a manageable number:

1. Use only social indicators that derive directly from sub-goals; and,
2. Use only social indicators that project actions will affect.

In addition, Hemple and Trucker (1979) discussed some principles—many of them rather obvious—that apply to constructing community level
indicators. The last two are not appropriate for the disaggregation process, but the others make sense:

1. Indicators should indicate changes that significantly influence quality of life, and they should be considered important by the development agency. These principles follow from the logic of the disaggregation process;
2. Indicators should clearly reveal qualitative and quantitative shortfalls from goals. This principle also follows from the disaggregation process;
3. Indicators should indicate changes that community development should affect. This principle parallels the Technical Committee's second principle;
4. Indicators should minimize measurability problems; they should be simple and understandable, and they should be measurable with accessible data;
5. Indicators should be comprehensive in the sense that they should relate to all relevant aspects of everyday life;
6. Indicators should differentiate between different groups;
7. Indicators should have an identifiable relationship with specific geographical areas;
8. Indicators should be output oriented. This principle assumes that all inputs will have effects directly measurable by the time of the monitoring stage. This principle seems to require ignoring some important aspects of community development, because sometimes the results of inputs will lag, and thus output oriented indicators will not monitor them. The planning agency will have to decide whether or not it prefers this limiting principle.
9. The social indicators should be integrated with an explanatory model. This principle is clearly irrelevant to the HPP, because disaggregation follows from a value structure, not a specific theory.

Some of the information needed to complete the preliminary evaluation will be available from the original survey and questionnaire research project, especially that pertaining to perceived needs. Practitioners will have to use
other "objective" indicators to measure conditions that "subjective" measures will not measure. In crafting these indicators—especially indicators that measure environmental conditions—planning practitioners will often need to rely upon technical experts to work out details (such as acceptable air particulate levels).

In this planning scenario, each agency can choose who carries out the necessary tasks; the circumstances will vary for each community. Agencies might use combinations of volunteer staff, hired technicians, in-house experts, and so forth.

Activity planning. This step includes two sub-steps: deciding which sub-goals and indicators the community wishes to prioritize and choosing action variables. Both steps are amenable to strategies to increase participation and innovation.

Cocklin (1989) outlined a possible approach to prioritizing goals—a "goal-programming model." With this strategy, planners identify all relevant goals, such as the various types of production and ecological parameters (for example, food production and biodiversity), establish "relative preference for the attainment of each," and identify environmental constraints upon them. Then, the planners establish minimum standards (measured with indicators) for the first goal and determine the necessary resources and conditions to meet it. Next, planners establish minimum standards for the next highest goal, determining necessary resources within environmental constraints and the limits imposed by the first goal. Planners proceed through all the goals, each goal operating within the limits set by the demands of the higher priority goals and the pre-defined environmental constraints. When completed, the process yields information on how various actions will affect other goals, for example, how food production will affect soil parameters. Planners can vary the "model coefficients" or the "priority orderings" between goals to get information on various goal tradeoffs. (This process of
action comparison is analogous to the process the Technical Committee used to compare action variables.) The problem with goal programming involves its technical difficulties—often, goals are incommensurable. The HPP helps confront this problem with its disaggregating process, because many of the goal disaggregations will indicate effects indicators share. Nevertheless, problems will still emerge, and ultimately, the intuitive judgement of the planners or some logical process (the delphi technique or the nominal group process) might weigh significantly.

Prioritizing actions will also be a complicated process. The process will require choosing which action variables are practical—how they will affect each other and the indicators set, how expensive they are, and so forth. On many technical matters, the agency will have to consult technical experts, with whom they must work to determine which question are important and how the agency can answer them.

Ultimately, these two sub-steps will inform each other. How practical and workable action variable are will inform prioritizing goals, and vice versa. Thus, the action planning step may involve an iterative process between the two.

Development activities. This step is task-based and relatively straightforward. If the community chooses to engage in more than one task, some activities may, of course, take longer and cost more than others, and the agencies carrying out the tasks might vary. Community development agencies might use volunteers or staffers to complete tasks, they might contract tasks out, or they may might do both.

Monitoring. The agency using an HPP will use social indicators from the goal hierarchy to measure the effects of their activities. Some of the data collection will be in the form of "objective" indicators and some will come from questionnaires and surveys. (Morgan and England, 1983, discussed the importance of using service recipients' opinions to assess development.) The
agency might want to continue this step, because some activities will affect indicators differently, depending upon when the agency uses the indicators and according to which indicators the agency uses. Also, if the community is working on more than one task, the agency will probably take measurements at different times.

In addition, the agency will need to search for significant results that they did not foresee when building their indicators model. In this way, they will also be assessing their social indicators structure.

As with the other steps, community agencies will choose their own combination of staffs to perform necessary tasks.

**Reevaluation.** This step involves reevaluating the sub-goals, social indicators, and action variables. Regarding the sub-goals, the community agency must ask whether or not it still values them, whether or not they are worth the costs of realizing, if they are practical, or if they are in the domain of community influence. If the answers to any of these or other relevant questions are negative, then the community agency might consider restating its sub-goals.

Regarding action variables, the community agency should consider whether or not they affect the sub-goals the way the agency supposed them to, or in general, whether or not they are the right ones.

Regarding the social indicators, the agency must consider whether or not they adequately measure the effects of the action goals, and whether or not they adequately relate the action variables to the sub-goals. Should the agency seek different or additional social indicators?

**A continuing process.** Communities will probably continue development activities after the first round of action. After reevaluating their situations, they can continue through planning, acting, monitoring steps, reevaluating, and so forth. In this way, the process should be iterative; each stage can inform the next. Thus, the process can be similar to social learning. Some tasks
inform others, and many minor (relatively) accomplishments add up to and inform development in a comprehensive sense. The community agencies become more competent and they have accomplishments for their efforts.

Of course, cause and effect relationships will eventually become difficult to discern. Various actions will affect the same social indicators, and secondary effects will occur. Separating one action variable's effects from another's will become difficult. But, the continued process of monitoring and adjustment should enable the community to attend to its goals.

Another aspect of this process, and one that can clarify causal relationships even as they become more complex, is that it is conducive to quasi- or social experimentation.

The HPP, community development, and social experimentation. Soderstrom (1981) describes a model for researching and managing social impacts of technology that is similar and applicable to the HPP as it relates to community development. The central point is that agencies can use present development activities to inform future activities. Soderstrom refers to his model, which is concerned with measuring the effects of specific projects, as a Social Impact Assessment (SIA) model. While social impact assessment technically is not synonymous with community development evaluation, the "constraints (and potential benefits) that arise in development project evaluation are quite similar to those faced in social impact assessment. Thus methods developed for social impact identification are also useful in evaluating the full range of social impacts that result from development projects" (Dietz and Pfund 1985). Soderstrom's central idea is "impact management" through "monitoring" and "mitigation" of development projects. It involves a combination of "impact forecasts" and "impact research." In sum, his model involves forecasting development impacts, monitoring, adjusting (mitigating) the development, and attempting to determine the causal relationships between the project and social impacts.
Soderstrom lists five requisites for his experimentation model, and these requisites correspond with elements in the HPP community development model.

1. Categories of impact stimuli. These categories include development impact—specific projects that impact the social grouping (the community). In the community development context, of course, these categories refer to development activities or tasks.

2. The baseline. With the HPP scenario, community conditions as listed in the preliminary evaluation offer a baseline—a set of conditions with which to compare future activities.

3. Impact measures. Soderstrom refers to social indicators as the relevant measures in his SIA model. This reference to social indicators corresponds nicely with the HPP's use of social indicators. Soderstrom stresses, as did the Technical Committee, that both qualitative and quantitative measures are important.

4. Temporal dimensions. In the HPP scenario, the agency coordinates specific action variables with social indicators, and these action variables will affect the indicators through time. In explicating the types and quantities of change, the agency will define its temporal dimensions.

5. Spatial dimensions. By operationally defining the community, the development agency defines the spatial dimensions. Of course, development activities are likely to affect areas outside the agency's geographical domain, but the agency will probably be less concerned with development outside the community.

The idea of this social experimentation is to find effects from actions that are consistent over time, thus eliminating other intervening principles. Because of the complexity of social change, Soderstrom stresses that resulting knowledge will only be informative (versus determining) and will be subject to change. But, this knowledge can be useful to future development plan-
ning.

Consistent with this perspective, Soderstrom intends for social experimentation results to be "one of many inputs to the decision-making process" (61). Like the Technical Committee, Soderstrom acknowledges the value-laden and political character of choosing projects to pursue and social indicators to monitor. And, like the committee suggested for the HPP, Soderstrom suggests that experimentation be part of an information system.

Thus, it seems that the role that the HPP can potentially share a role with social assessment, in that they can offer insight into causal relationships to be used in future development planning decisions. Though I place the HPP within a possible context, ultimately, it is only an information system based upon a community agency's value structure.

Conclusion.

Applying the HPP to community development could confer many advantages to rural community development planning. One of the apparent advantages of such an adaptation is that it provides a framework for aligning a community's values with development activities and clarifying the relationships between the two. Rural community participants can decide what they think of rurality and community and guide development according to their preferences. Further, it allows planners to clarify the effective relationships between action variables. Trade-offs and conflicts between action variables become apparent. And, the HPP provides a development monitoring system. Agencies can learn what effects their actions have and adjust their goals, indicators, and actions in accordance with what they learn. In this way, the HPP allows for flexibility and social learning.

Another important benefit of an HPP adaptation is that it allows a community to integrate goals and actions that other models keep separate. In other words, the HPP derives all of its labels from its disaggregation process. For example, the HPP makes no necessary distinction between economic and
social development; actions like organizing community gardens, worker owned service export companies, or some other innovation can be part of both.

Finally, the HPP adaptation is amenable to public participation and communication. In articulating and prioritizing goals and actions, people can learn where they differ from others and whether or not their differences are reconcilable. Given a common general aim, this model provides a means to identify consensus where it exists. Relatedly, the model allows for interaction between what Friedmann (1973) calls experts and citizen planners. It provides a framework within which community participants can choose what planning questions are important to them. In this way the HPP model is consistent with Friedmann's concept of "transactional planning" in that citizen planners, in the process crafting social guidance systems, will decide when using technical experts is appropriate.

On the other hand, adapting the HPP to community development would not assure "success," and it begs some questions. The concluding chapter will discuss some of the issues the HPP model does not address.
Adapting the Hierarchical Planning Process to rural community development offers many benefits, though it does beg some questions. One important issue addresses the limits and hopes of planning in general: can we forecast the results of our actions? Friedmann (1989) writes that we cannot:

Most social forecasts are exercises in logic in which events are projected on the basis of a long series of assumptions. Since the assumptions are established a priori but are usually determining, the logic of forecasting turns out to be circular: given the assumptions, forecasts represent the working out of the inevitable conclusions. The assumptions themselves, on the other hand, are subject only to expert judgement, and they are not controlled.

Despite the invention of various ingenious methods for spying through the veil of time, the outlook for social and economic forecasts is fairly bleak. Claims that anything like a full range of consequences of an action can be predicted in advance of the action itself cannot be sustained. (Friedman 1989, 169)

On the other hand, Friedmann writes, forecasting "is not an altogether futile exercise," for several reasons: analysts (i.e., planners) can test "[c]ertain dimensions of a projection"; forecasting can help determine general magnitudes of effect; it can direct attention to short term planning, with which certainty increases; it can be used for heuristic purposes; it can "improve the availability and quality of the data necessary" for forecasting models; and it can help "send up warning signals of coming crises" (Friedmann 1989, 170).

In an earlier piece, Friedmann (1973) places forecasting in an acceptable context. In this piece he refers to projection as a process of constructing a "dimension" of potential effects ranging from preferred to unpreferred and from probable to improbable. Thus, while no model can predict the future, a planning agency can at least forecast some possible consequences of action. In other words, planners can estimate the effects of development.

Though the possibility of forecasting consequences of action is uncertain, it is the basis of planning and action. Thus, a planning process must engage in
some form of forecasting. The HPP, functioning amidst uncertainty, attempts to forecast in the context of rural communities' values and goals, and in this way it is a means for clarifying the relationship between community goals and the consequences of action.

Another open issue that remains vague in the HPP model is how people resolve conflicts. Many possibilities for conflict are inherent in the model, such as between sub-goals or between action variables, and many influences—gender, race, class, ideology, tradition—generate conflict. The HPP offers no panacea for resolving conflict, which is appropriate; community agencies will confront conflict on their own terms. How they do address conflict must be the subject of another inquiry. Of course, addressing this issue begs the question of whether or not community agencies should eliminate conflict. Conflict indicates diversity, and diversity can be the basis for innovation. Perhaps some conflict is beneficial.

A related issue is whether or not community members are willing to cooperate in the first place. Some interests may be better off promoting or maintaining conflict and preventing integrated planning. Thus, community forces may preclude ever considering the HPP. Adapting the HPP to rural community development will require a hospitable environment that may not be available.

Yet while the HPP does have its limits, it also confers many important advantages to rural community development planning. To begin with, it offers a framework that is conducive to broad participation. With the HPP, a rural community development agency (that is, a person or group initiating development) can help community members articulate their goals; they can articulate the aspects they value in their community. Using the HPP framework, they can interpret their goals into specific conditions and actions, and they can specifically determine the relationships between their goals and actions. Furthermore, community members who do not have the technical
knowledge necessary for some types of problem-solving can use the framework to help them decide when they are or are not technically qualified. Technical questions become relevant and more understandable to community members, who have a framework within which they can place the questions and relate them to other aspects of development.

Another advantage of the HPP model is that, while it does not offer a means for resolving conflict, it offers a framework within which community members can address conflict. Specifically, the HPP offers a framework with which communities can identify their conflicts and how they relate to their goals and actions; communities can agree upon the sources of their conflicts, and such agreement can help in resolving these conflicts. Communities can sidestep issues of ideology and address differences in terms of community goals, the most general of which they will likely agree upon. Furthermore, using the HPP makes possible non-compartmentalized thinking. In other words, instead of thinking in terms of types of change ("economic," "political," "environmental," and so forth), community members can think in terms of their goals and related action. The HPP can offer a means for rural community members to reach an understanding.

In general, the HPP offers a framework with which a rural community can identify its circumstances, identify its goals, guide action, and monitor development effects. Community agencies can use the HPP to measure community changes originating from within and outside the community. It offers an information base, which everyone understands, from which to make wise planning decisions, and it is a clear, simple, and systematic framework for confronting frequently unclear and complicated rural community problems.

Some parallel lines of action.

According to some authors, political action may be a necessary companion to meaningful rural community development. Martin (1989), from a social
work perspective, writes:

If social workers are to continue contributing to the development of community organization practice, an ideology of proactive community change and change-oriented intervention strategies must be more fully developed.

A growing literature urges social work to reject the status quo and commit to community change and reform. Community practitioners are urged to move from "enabling to advocacy" and to view fundamental change of the social environment as a primary goal of community organization practice...

Social workers, and the communities they serve, can benefit from becoming more adept at political action. Political action includes not only electoral politics but advocacy for those who cannot speak for themselves, lobbying of decision-makers for resources, educating the public, and protesting wrongs. Appreciation of the politics in all social welfare practice is growing. Nowhere is the need for political action more evident than in communities. (Martin 1989, 254)

Action at the extra-community level is important as well. Martin summarizes this issue:

Citizens and community social work organizations are frequently excluded from actions by external authorities even though these actions affect the community. Decisions at state and federal levels on social policies, resource distribution, and rule and regulation specification are typically made with minimal input from local communities. This can lead to resource distribution that fails to help and policies that are inappropriate for community residents, programs, and priorities. (Martin 1989, 247)

She argues that "local communities and their citizens can benefit from greater control over their fate" and recommends two strategies: "partnership with external organizations" and "political activity." Regarding extra-local partnerships, she writes:

A partnership between community agencies and CDOs and authorities external to the community requires organization and initiative at the community level. Community practitioners who assist communities to cooperatively plan, develop coordinated service-delivery networks, and maximize the use of their resources can assist them also in lobbying external authorities to take local circumstances and needs into account. (Martin 1989, 252)
Regarding political activity, Martin writes:

Resources for social welfare benefits and services are not created by magic. They come mostly from governments that levy taxes on citizens and face many competing demands for resources. (Martin 1989, 252)

She further writes that communities engaging in political action face difficulties amidst powerful competing interests. Nevertheless, she recommends eight types of action: electing "supportive public officials"; developing political coalitions; lobbying; educating the public; political protesting; conducting "action research"; advocating within the criminal justice system; and serving "as a social watchdog."

Friedmann (1989) describes a comprehensive agenda that integrates local development, local political action, and extra-local political action. He refers to a "recentering of political power in civil society"—planning in the context of activism from below and a "recovery of the political community [and] the transformative vision that underlies it." He envisions a "collective self-production of life" in the context of the "public domain," a cultural milieu in which citizen planners and participants share "common interests" and strive for "the common good." Action must occur within the household, regional, "peasant periphery" (commonly called third world), and global contexts. His discussion of the household and regional levels is particularly relevant to rural community development and its relationship to extra-local political action.

On the household level, according to Friedmann, planners and activists (all citizens) must "restructure for the self-production of life." That is, households must strive for self-reliance in all the social functions. This striving includes pursuing social intimacy, cooperation, exchange, and networking—in short, building community—and struggling to build self-reliance in the economic functions. (He places economic relations in the context of five spheres, which "absorb household resources." These spheres
include the household, the market, civil society, political community, and the state.)

In describing transformative action within the "regional nexus of workplace and home," Friedmann refers to reestablishing a "communal tradition" an idealist conception that includes "political community"—local citizens working together to direct policy that affects them, "sovereign will over territory," accountability of communal members and all those actors whose actions affect the commune; "reciprocity" among actors, and political, economic, and social "linkages" among commune members.

Further, Friedmann argues that planners must discover the political limits to action, and when they confront those limits, they must attempt to change them, through political struggle involving social mobilization. He emphasizes that political change is incremental; actors will adjust limits piecemeal and ad hoc. Such struggle will involve "cross-linking, networking, and building coalitions"—political communities sharing information and collectively mobilizing to influence national policy.

Planning, in this schema, involves facilitating. That is, planners will help organize networks, provide information on technical matters, political issues, and practical constraints on action, and mediate between collective banks of knowledge and the immediate situation; their function is synthesis. The planning style is "transactive," involving "small, task-oriented groups" in a process of social learning—a synthesis of practice and knowledge that relies upon mutual learning, or dialogue between planner and actor, expert and lay person. When problems extend beyond the sphere of a small group, the group networks with other groups, choosing representatives to form a task group, which will endure until members feel the group no longer has purpose. In this way, regional and nationwide mobilization is possible. In a political sense, large-scale mobilization may be imperative.

As the literature indicates, rural community development involves many
types of effort and struggle on many levels. One would hope that the general
direction will be "good" to the individual, to the community, and to the
society at large. The "larger" purpose, it would seem, aims to restore the
"circulation of matter"—of earth and humans—"as a regulating law of social
production, and under a form appropriate to the full development of the
human race" (Marx 1906, 555).
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