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ABSTRACT: There are a multitude of interdisciplinary values that people derive from rural land. Productivism focuses on the commodity values of rural land, such as the use of land as a commercial input into agricultural production, timber harvesting and mineral extraction. Productivistic uses and values of rural land have been the traditional focus of rural land policy and management in the United States. Many rural areas in the United States are moving into a postproductivism era. Postproductivism focuses on both commodity and amenity values of rural land. Amenity values of rural land include recreational, aesthetic and ecological service values. When a rural area moves from productivism to postproductivism, value conflicts may arise between individuals and groups who have different preferences with respect to commodity and amenity values. Traditional rural institutions may not be set up to effectively handle such conflicts. There is a need to explore what types of institutions may be most effective in resolving rural land use problems related to the different and often competing values people place on rural land and landscapes.

KEY WORDS: postproductivism, rural land values and preferences, commodity values, amenity values

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Introduction

Land has many, multifaceted values to people. Throughout history, the values provided to people by land and its relative scarcity has resulted in minor and major competitions for the possession, use, and management of land. The struggle for survival leads to competition for land as an input for producing the basic necessities of life such as food, shelter and clothing. Conflicts over land to provide basic necessities for survival have occurred over and over again in past civilizations. These type of conflicts over land can be observed today in many underdeveloped parts of the world.

In most developed parts of the world, market forces are doing an adequate job of allocating land to the production of necessities of life in a nonviolent manner. In agricultural land markets for example, market generated prices for food and fiber products play a pivotal role in determining how much land will be allocated to, say, corn and cotton production. Similarly, the demand for and supply of land for housing are captured in market prices and transactions which, in the absence of some type(s) of government restrictions, determine how much land in a region will be allocated to housing. Since VonThunen, economists have been quite familiar with and accepting of the market-driven allocation of land to different uses according to its “highest valued use.”

If market prices and transactions capture and reflect all relevant values of land, allocation of land to its “highest valued use” via market forces should be automatic assuming all other necessary assumptions hold. There are good theoretical reasons to believe that land markets adequately reflect the value of land as an input into the production of economic commodities in the nature of private goods such as food, fiber, timber, and mineral products. Land, however,

provides additional services beyond the role as inputs in commercial production processes which are more in the nature of public goods. Certain types of land amenity values fall into this category. Economic theory suggests that the value of public good land services will not be adequately reflected in land markets. Other types of land amenity values will likely escape land markets altogether because of their incommensurable or intangible nature.

Economists typically do not venture outside of the commensurable land value terrain into the incommensurable or intangible land value terrain. Yet, as Crosson (1985) argued over 15 years ago, resolution of competing demands and interests in the use and allocation of land requires that the full scope of land values be taken into consideration. This theme is being repeated often in contemporary times, particularly in developed countries such as the U.S. where land use conflicts increasingly are centered on the amenity values of land, rather than value of land as an input into commercial economic production.

In the next section of this paper, some background discussion on why we as a society seem to care so much about rural land values is provided. Following this discussion, a framework for empirical assessment of land values focusing on amenity values is presented. Application of these values in the rural land management arena is then discussed. Some concluding thoughts are provided in the final section.

Rural Land Values: Why Do We Care?

The struggle over defining the values of land to individuals and society is nothing new in America. For example, Thomas Jefferson believed strongly that close ties with the land provided “character building” values that would result in the type of independent, moral, and productive citizens needed to support a growing, free democracy. In another corner was

Alexander Hamilton who did not completely share these sentiments with Jefferson. Hamilton viewed land values more narrowly as he focused on the use of land as an input into the economic engine needed to drive the new country. These differing perspectives on the value and importance of land to individuals and society, as well as differences of opinion of other issues, led Jefferson and Hamilton to advocate different and perhaps competing visions for the development of America (Crosson, 1985; Hite and Dillman, 1981).

The Hamiltonian view of land values apparently was more in line with a young, developing America. Throughout most of American history to date, including the history of economic thought, the predominant view of land has been as an input into commercial productive process just like any other input (Crosson, 1985). In the world of economics, this traditional view of land values has been passed along from one generation of economists to the next primarily through the neoclassical production function. Using the neoclassical production function, one of the first lessons introductory economics instructors teach their charges is that land along with labor and capital provide the big three inputs for production of commercially valuable economic commodities. Values of land other than its marginal productivity in the production of food and fiber products, widgets, or some other commercial commodity are typically not discussed in standard college microeconomic theory courses.

The traditional view of land as a commercial input has contributed to a historical emphasis in rural areas and rural/agricultural policy on “productivism.” Productivism as applied to rural land implies a commitment to commercial production values supported by public policy. In the rural U.S., productivism has traditionally been the guiding force behind land use policy and management (Lowe et al, 1993; Reed and Gill, 1997). The results of productivism can be

seen throughout the rural landscape - agricultural operations producing an abundance of food and fiber products, private industrial forests where trees for lumber products are grown with utmost technical precision, and large dams and reservoirs built to provide electricity to fuel all manners of industrial production and output.

From an economic development perspective, productivism has been extremely successful in America. In a relatively short historical time period, America has transformed itself from a struggling, developing nation to a highly developed “super power” with unprecedented standards of living. In a developing nation, or in remote rural areas of a developed nation, necessities of life such as food, shelter, and clothing are often critically scarce. As a result, there is high individual and societal demand for increased outputs of these necessities with a corresponding high derived demand for the use of land as a commercial input. In this context, productivism naturally emerges as a means for organizing and utilizing land and other inputs to deal with the scarcity of necessities of life.

As a nation or rural area develops, two fundamental changes occur that put pressure on the established emphasis on productivistic uses of rural land. First, productivism helps to mitigate the scarcity problem related to necessities of life to the point that it is no longer a major national or regional concern. In the United States and many European nations, for example, an equally troubling concern for individuals and society are the large surpluses of food and fiber produced by the agricultural industry. Second, as a nation or rural area develops, demand for noncommercial land values such as amenity values tend to increase at a relatively greater rate than demand for more food and fiber production. The reason from economic theory for these different demand changes is that because they are in the nature of luxuries, the income elasticity

of demand for noncommercial land values is greater than the income elasticity of demand for necessities such as food and fiber (Bromley and Hodge, 1990).

Economists, rural sociologists, geographers and other observers of changes in rural development patterns agree that many rural areas are moving into a postproductivism era. This postproductivism era is characterized by more diverse economic activities and attitudes with respect to the use and allocation of land. A key characteristic of a rural area experiencing postproductivism is a migration into the area of new residents attracted by rural land amenities, and increased visitation by nonresidents seeking recreational and leisure opportunities supported by rural land amenities. In addition to “on-site” benefits of rural land amenities to rural area residents and visitors, postproductivism in a rural area also receives support from “off-site” beneficiaries of rural land amenities. These off-site beneficiaries include people in urban, suburban, and exurban areas who enjoy cleaner air and water supported by the countryside (Flynn and Marsden, 1995; Lowe et al, 1993; Reed and Gill, 1997; Troughton, 1996).

Many people in rural areas of the United States remain geared toward productivism and represent the traditional “stakeholders” in rural policy. Accordingly, many local, state and federal institutions involved in rural development and policy continue to lean towards productivism. The new stakeholders in rural development and policy are the residents and nonresidents of rural areas who are more in the postproductivism camp. Institutions that serve the interests of the postproductivism stakeholders are not well-developed. The presence of these different sets of stakeholders and the lack of institutions set up to handle and mediate the interests of both groups sets the stage for land value and property rights conflicts in need of resolution (Bromley and Hodge, 1990; Reed and Gill, 1997).

Rural Land Values: What are They?

When two parties do not see eye-to-eye on an issue, a first step towards an acceptable solution is for each group to have a better understanding of what is important or valuable to the other group. What are the various types of land values that may be of importance to productivists, postproductivists, or both? To address this question, the full scope of rural land values is discussed in this section with an emphasis on amenity values.

The National Agricultural Lands Study published in 1979 was indicative of a growing national interest and concern in the loss of rural farmland and associated values of this land. The following quote from the National Agricultural Lands Study suggests the broad scope of farmland values of concern in the study that can be applied to rural land and landscapes in general:

“As prime farmland disappears, food is not our only loss. The quality of our lives is diminished. There are garish signs and glaring storefronts where leaves once caught the rain and filtered the sunlight. There is asphalt where fields and woods once beckoned and refreshed the spirit. There is the loss, also, of farm family life, and the values that spring from living close to the land” (Fields, NALS, 1979).

Several fundamental types of rural land values are embodied in this quote. These values have been discussed within the context of farmland values in more detail by a number of authors in articles published since the late 1970s, particularly in the early 1980s, but continuing to today (Kline, Jeffrey and Dennis Wichelns, 1996).

An early influential paper on the subject of farmland values was written by Bruce Gardner and published in the *American Journal of Agricultural Economics* in 1977. Gardner (1977) delineated four major types of values provided jointly by farmland: 1. local and national food production; 2. provision of local jobs in the agricultural sector; 3. better and more organized development of urban and rural land; and 4. environmental amenities. Crosson (1985) provides

further elaboration on farmland values in an article appropriately entitled, “Agricultural Land: A Question of Values.” In this article, he first discusses the market values of farmland starting with the tremendous market value of food and fiber products produced on farmland. He also highlights the considerable employment benefits provided by jobs in the agricultural sector. Both Gardner (1977) and Crosson (1985) argue that private land markets adequately allocate farmland to the production of food and fiber products and the associated support of jobs in the agricultural sector.

Crosson (1985) also points out the market value of farmland for development purposes. In the absence of development subsidies, farmland is converted to residential, commercial, and industrial uses whenever the market value of the land in nonagricultural uses is higher than the market value of the land in agricultural uses. In the spirit of VonThunen, both Gardner (1977) and Crosson (1985) argue that private land markets adequately value and reallocate farmland from agricultural to nonagricultural uses.

Gardner’s (1977) fourth category of farmland values, environmental amenities, was defined broadly as open space and other general amenities of farmland of an environmental and public good nature. Crosson (1985) included visual amenities provided by open space as a type of intangible value of farmland. Other intangible values of farmland according to Crosson (1985) include wildlife habitat, “character building” values gleaned from rural life, and the value of a “sense of community” promoted by farming life. Gardner (1977) and Crosson (1985) agree that unlike market values derived from food and fiber production, employment, and development, the externality nature of the above amenity-type values means that private land markets are not likely to adequately allocate land to the support of these values.

A number of studies conducted mostly in the 1980s attempted to quantify the amenity-type values of farmland. Amenity-type values were defined somewhat differently by each study. Halstead (1984) referred generally to the “nonmarket value” of farmland including wildlife habitat, scenic vistas, and recreation. Bergstrom et al (1985) defined environmental amenities associated with farmland to include scenic value and the environmental qualities of agricultural land which generate nostalgic value. Nostalgic value is related to the virtues ascribed to living close to the land as advocated by Thomas Jefferson. Beasley et al. (1986) defined amenity values to include scenic values and historical values of farmland. Bowker and Didychuk (1994) refer to the “external benefits” of farmland which they define to include open space, scenic vistas, wildlife and traditional country life.

Rosenberger and Walsh (1997) define three categories of amenity-type values which they classify as nonmarket values of farmland; open space values, environmental amenities, and cultural heritage. Open space values include visual, recreational and therapeutic benefits. They define environmental amenities to include watershed protection, soil conservation, plant and animal habitat, and the biological diversity supported by these amenities. Cultural heritage value is defined as the value of farmland as part of the unique cultural or natural heritage or history of an area (Rosenberger and Walsh, 1997).

Land and landscape amenities have also been a topic of considerable interest in the rural development, land planning, and environmental planning fields. Duffy-Deno (1997) and Reed and Gill (1997), for example, discuss the role of landscape amenities such as scenic beauty and open-space in attracting new residents and recreational visitors to rural areas. As with the economic valuation studies mentioned in the previous paragraph, a major concern in the land use

and environmental planning literature is with the value of undeveloped land on the urban-rural fringe (e.g., greenbelts). Amenity-type values identified in the rural development and planning literature include recreational values, open space, scenic beauty, symbolic values, environmental quality, and managing urban sprawl (Correll et al., 1978; Duffy-Deno, 1997; Lee and Fujita, 1997; Lee and Linneman, 1998; Reed and Gill, 1997; Young and Allen, 1986).

Philosophers, working primarily in the area of environmental ethics, have identified and discussed values associated with nature that can be applied to rural land and landscapes. A general dichotomy of land values suggested by philosophers are *instrumental values* and *intrinsic values* (Ferre, 1988). Instrumental values of land are derived from the active or passive use of land to support or generate services which are useful or valuable to people, plants, animals, and ecological systems as a whole. Intrinsic values of land are the values of land which are independent of active or passive use by some other entity.

The source of intrinsic values is a rather deep ethical, philosophical, and theological question. Some schools of ethical/philosophical/theological thought identify the source of intrinsic values of land as the land itself. For example, Aldo Leopold's "land ethic" outlined and discussed in his book, *The Sand County Almanac*, suggests that land values include the values of land elements such as plants and animals to themselves. Leopold's "land ethic" is an important foundation for modern schools of ethical thought which hold to the inherent value of the biotic and abiotic elements of land and landscapes to themselves including biocentrism and ecocentrism (Oelschlaeger, 1991). Consistent with biocentrism, the *biocentric intrinsic value* of land refers here to the value of living land elements to themselves. Consistent with

ecocentrism, *ecocentric intrinsic land value* refers here to the value of living and nonliving land elements to themselves and to the land or landscape ecosystem as a whole.

Other schools of ethical/philosophical/theological thought identify the source of intrinsic values as God or other spiritual beings or entities. Judaism, Christianity, and Islam teach that God created the land and everything else in the universe. This creation has an inherent value to the creator which is apparent in common Judeo-Christian land and nature scriptures found in the Old Testament of the Bible such as Psalm 104. Consistent with the idea of the inherent value of land and nature derived from its creator, *theistic intrinsic land value* refers here to the value of living and nonliving land elements to God independent of active or passive use by anyone or anything else on earth.

Buddism, Hinduism, and parts of Native American spiritualism teach that various types of spiritual beings inhabit the land and its elements. The presence of these spiritual beings provide value to land that is not dependent on active or passive use by anyone or anything else on earth. Thus arise, for example, “Sacred Groves” which are preserved by Hindus for the benefit of the spiritual beings that are believed to inhabit the grove of trees. The inherent value of living and nonliving land elements derived from a multitude of spiritual beings or entities is referred to here as *pantheistic intrinsic land values*.

Unlike intrinsic values, instrumental values of a particular land element are derived from the active or passive use of this element to generate, produce, or support some good or service useful and valuable to people or some other living or nonliving land element. Instrumental values can be divided up into noneconomic and economic instrumental values. Noneconomic instrumental values associated with land include *biocentric instrumental land value* and

ecocentric instrumental land value. Biocentric instrumental land value is the value of land elements to plants and animals. For example, different types of soil have instrumental value to particular plants as source of nutrients needed for life. Ecocentric instrumental land value is the value of land elements to all living and nonliving components of land ecosystems. For example, ecocentric instrumental land value would include the value of soil as a foundation for surface rock formations. The argument in philosophy and ecology circles is that the function of soil within the land ecosystem as a foundation for rock formations has value outside and independent of human activities which give rise to economic values.

Biocentric and ecocentric instrumental land values focus on the noneconomic instrumental values of land elements to biotic and abiotic components of land ecosystems. Noneconomic instrumental land values also include certain types of *anthropocentric instrumental land values.* Anthropocentric instrumental land values are derived from the active or passive use of land elements to generate, produce, or support goods or services of value to people. Philosophers such as Holmes Rolston and economists including Crosson, and Hite and Dillman identify a number of land values that can be classified as noneconomic anthropocentric instrumental land values. These values include particular types of aesthetic values, historical values, cultural values, security and stability values, mental health values, physical health values, and spiritual health or religious values (Crosson, 1985; Hite and Dillman, 1981; Rolston, 1985).

Economists and philosophers have also identified a host of economic anthropocentric instrumental land values. Because economic values are always dependent on human preferences, the terms “economic” and “anthropocentric” in the label “anthropocentric instrumental land value” are redundant. We can therefore shorten the label somewhat to

economic instrumental land values. Economic instrumental land values include a number of *active use values* including material consumption value, recreational use value, on-site scenic appreciation value, and commensurable mental, physical, and spiritual health values involving on-site use. Economic instrumental land values also include a number of *passive use values* including commensurable existence values, historical values, cultural values, job satisfaction values, security and stability values, off-site aesthetic appreciation values, off-site recreation and leisure values, and mental, physical, and spiritual health involving off-site passive use (Crosson, 1985; Hite and Dillman, 1981; Kline and Wichelns, 1996; Rolston, 1985; Rosenberger and Walsh, 1997). The various values of land from an interdisciplinary perspective are summarized in Figure 1.

Land Function and Value Linkages

How can all of the various different potential types of land values summarized in Figure 1 be organized to facilitate empirical analysis and policy decisions related to rural land values and management? To accomplish this organization, it is useful to think of land as an asset with various *functions* as illustrated in Figure 2. In the productivism tradition, the focus of rural land values and valuation has been on the use of land as a commercial input, such as an input into commercial agricultural production. For the most part, rural development policy in the U.S. has historically emphasized the goal of maximizing the commercial production use of rural land (Bromley and Hodge, 1990; Reed and Gill, 1997).

Land areas function as “places” which support what philosophers and sociologists refer to as “values of place” (Norton). For residents, rural land including farmland function as places to live and work. In a rural area, these residents include “long-time” residents who work locally

in traditional jobs in the agricultural, natural resource extraction, and manufacturing sectors and “new” residents who work in local or nonlocal nontraditional jobs in the recreation and tourism, “high technology,” business service sectors, or are retired and living off of transfer payments from pension funds, retirement accounts, and other nonlocal sources of income.

Land areas also provide places to visit. In many rural areas of the country, recreation and tourism catering to nonresident visitors is a booming business. Most of this recreation and tourism is nature-based - e.g., hunting and fishing, camping, hiking, boating, lake and river swimming, water skiing, off-road touring, snow skiing, and snowmobiling. Agricultural-based tourism such as visiting “dude ranches” has been an established business activity in many parts of the country and is taking hold in other areas of the country.

Another broad function of land especially in rural areas is the provision of “space.” Space here is defined from a human interaction perspective, as in the phrase “you’re in my space.” Specifically, space refers here to the physical distance between people as they engage in various life activities (e.g., work, play) and the interrelated frequency of interaction between people as they engage in these activities. One of the apparent reasons people enjoy visiting and living in rural areas is that rural land areas provide them with more space.

The provision of flora and fauna habitat is often identified as an important function of land by philosophers, ethicists, economists, ecologists, biologists, and other social and physical scientists. In recent years, the preservation of rural land and landscapes as habitat for endangered plant and animal species has been a contentious rural policy issue. Heated debate between and among residents and nonresidents of the Pacific Northwest over the preservation of “old growth” forest landscapes to provide habitat for the endangered spotted owl is a familiar

example. In the southern U.S., rural land owners have also been put under controversial land use restrictions if certain pine trees on their land happen to provide significant habitat for endangered red cockaded woodpeckers.

Another function of land and landscapes is provision of unique physical terrain. Physical terrain includes mountains, rolling hills, gorges, valleys, plains, marshes, and beaches. Use and management of physical terrain features may also be a controversial area of rural land use policy at certain times and regions in the United States. Clashes may arise, for instance, between and among residents and nonresidents of rural areas over the preservation and management of unique physical terrain features. Debates over mining and forestry practices (e.g., clear-cutting of trees, strip mining) that temporarily or permanently alter the physical terrain and appearance of a rural landscapes are cases in point.

A major function of rural land areas is provision of a natural water supply system. With respect to water quantity, rural land areas support both a flow and stock of surface and subsurface water supplies through watershed run-off into rivers and lakes, and the seepage of surface water into subsurface aquifers. With respect to water quality, land elements (e.g., plants, soil) help to filter out chemicals in surface and subsurface water supplies which are potentially harmful to human, plant, and animal health. The function of rural land as a natural water supply system is an especially important issue from a rural and urban development policy perspective.

The land functions shown in Figure 2 support the various land values discussed previously and listed in Figure 1. The function of land of providing commercial inputs primarily supports the value people derive from consuming commercial goods, or material consumption value. The function of land as a place to work also supports material consumption value as well

as job satisfaction value, and security and stability value. The function of land as a place to live supports job satisfaction value, security and stability value, cultural value, historical value, recreation and leisure use value, aesthetic appreciation value, and mental, physical and spiritual health values. The function of land as a place to visit supports cultural value, historical value, recreation and leisure use value, aesthetic appreciation value, and mental, physical and spiritual health values.

The function of rural land and landscapes of providing “space,” more specifically “open space,” support recreation and leisure use value, aesthetic appreciation value, existence values, intrinsic values, biocentric and ecocentric instrumental values, and mental, physical and spiritual health values. The functions of providing flora and fauna habitat, unique physical terrain, and a natural water supply system arguably have an important role in supporting all of the values shown in Figure 2.

Rural Land Value Management

The preceding sections indicates that there are a broad array of commodity and amenity values supported by rural land. Two relevant policy questions are: 1) What is the desired mix of value provided by a particular landscape or landscapes? and 2) How can this desired mix be achieved and maintained? Consider first a *productivist* rural area or landscape in which commodity values are the primary values of interest. Figure 3 illustrates the primary beneficiaries and institutional representation for this type of area or landscape. Primary beneficiaries of commodity values in rural areas are commodity producers, commodity consumers, landowners, and long-time residents. These beneficiaries have traditionally had strong representation in local government planning boards, local elected officials, state

agricultural agencies, state resource management agencies (e.g., state forestry commission), federal agricultural agencies (e.g., ASCS), federal resource management agencies (e.g., U.S.D.A. Forest Service, Bureau of Land Management), and private commodity NGOs (e.g., Farm Bureau, other commodity associations).

When a rural area or landscape moves into postproductivism, there is demand for both landscape amenity and commodity values. Primary beneficiaries and institutional representation in this type of area or landscape are also illustrated in Figure 3. The demand for amenity values, in particular, adds new residents and nonresident visitors to the list of primary beneficiaries of landscape values. The demand for amenity values also results in government agencies and NGOs who primarily represent amenity value interests becoming involved in landscape management in a rural area. Government agencies include local recreation and tourism development boards and state recreation and tourism agencies. NGOs include conservation and environmental organizations and local chambers of commerce in some areas.

A major challenge in rural areas experiencing postproductivism development is dealing with “value conflicts” between people whose interests are primarily with commodity values, and other people whose interests are primarily with amenity values. Commodity value interests are generally well-represented in various land management institutions because of the private good nature of commodity values. There is a direct incentive for commodity producers, for example, to become involved in land management issues because their income and livelihood may depend upon it. Amenity value interests may not be as well-represented in various land management institutions because of the public good nature of these values (Bromley and Hodge, 1990; Reed and Gill, 1997). A “free-rider” problem may occur, for example, because if one person or group

takes on the burden and costs of becoming involved in land management institutions to protect amenity value interests, everyone in the community who enjoys nonrival, nonexclusive amenity values will benefit from these actions.

As a result of uneven representation in established land management institutions, new institutional arrangement for resolving value conflicts between commodity value and amenity value advocates in postproductivism rural areas may need to be developed. These new institutional arrangements may include more “bottom-up” organizations including citizen advisory committees, stakeholder advisory committees, local action or interest groups, round tables, and public forums. Many of the federal land management agencies such as the U.S.D.A. have increased the use of stakeholder advisory committees, round tables, and public forums in an attempt to resolve value conflicts between people who would like to maximize the use of National Forests and Rangelands for commodity values (e.g., timber harvesting, mining, grazing) and other people who would like to maximize the use of National Forests and Rangelands for recreation and other amenity values.

Summary and Conclusions

Americans appear to have a special attachment to land that spans over a broad array of concerns and interests. These broad concerns and interests lead to a multitude of interdisciplinary values that people derive from land. Land or landscapes can be thought of as assets with a number of major functions. These functions include use as a commercial input, a natural water supply system, unique physical terrain, flora a fauna habitat, space, and a place in which to live, work and visit. The functions of land or landscapes support economic and

noneconomic land or landscape values ranging from material consumption value to nonuse values including existence value and intrinsic value.

Two general categories of anthropocentric land or landscape values are commodity values and amenity values. Commodity values are derived from commercial commodities produced using land as a major input including food and fiber products, timber products, mineral products and manufactured goods. Amenity values are derived directly from the land and have large nonconsumptive or passive use components. Amenity values include recreational use value, scenic appreciation value, existence value, and certain types of cultural, historical, and health values.

Within a particular rural area or landscape, people residing inside or outside of that area or landscape will have different preferences for the current and future mix of rural land values; for example, commodity vs. amenity values. Productivism, which has been a traditional focus of public policy in rural areas, focuses on commodity values. Many rural areas in American are moving into a postproductivism era which focuses on both commodity and amenity values. When a rural area moves from productivism to postproductivism, value conflicts often arise between individuals and groups whose primary interests are commodity values and individuals and groups whose primary interests are amenity values. Rural institutions for handling such conflicts may not be well-established. There is a need to explore what institutions will be most effective in rural areas for moderating and solving value conflicts between people who desire different mixes of commodity and amenity values from land and landscapes.

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Figure 1. Interdisciplinary Rural Land or Landscape Values

Support of local agricultural industry	Land input for recreational activities	Ecological life-support
Support of local resource extraction industry	Support of local tourism industry	Provision of genetic diversity
Support of local agricultural jobs	Provision of wildlife habitat	Intrinsic value
Support of local resource extraction jobs	Provision of open space	Existence value
Job satisfaction value	Provision of scenic views	Therapeutic value
Support of job security and stability	Support of aesthetic enjoyment	Physical health value
Support of community security and stability	Surface water storage	Religious/spiritual value
Support of national security and stability	Ground water recharge	Educational value
Provision of local food supplies	Natural water filtration	“Natural laboratory” value
Self-sufficiency in production of food items	Support of rural life values	Protection of cultural heritage
Dispersion of food production	Provision of character building opportunities	Nostalgic value
Continued production of unique food products	Support of national identity/ideals	Environmental amenities
Land input for residential development	Cultural symbolization value	Countryside amenities
Land input for commercial development	Historical value	Promotion of orderly development

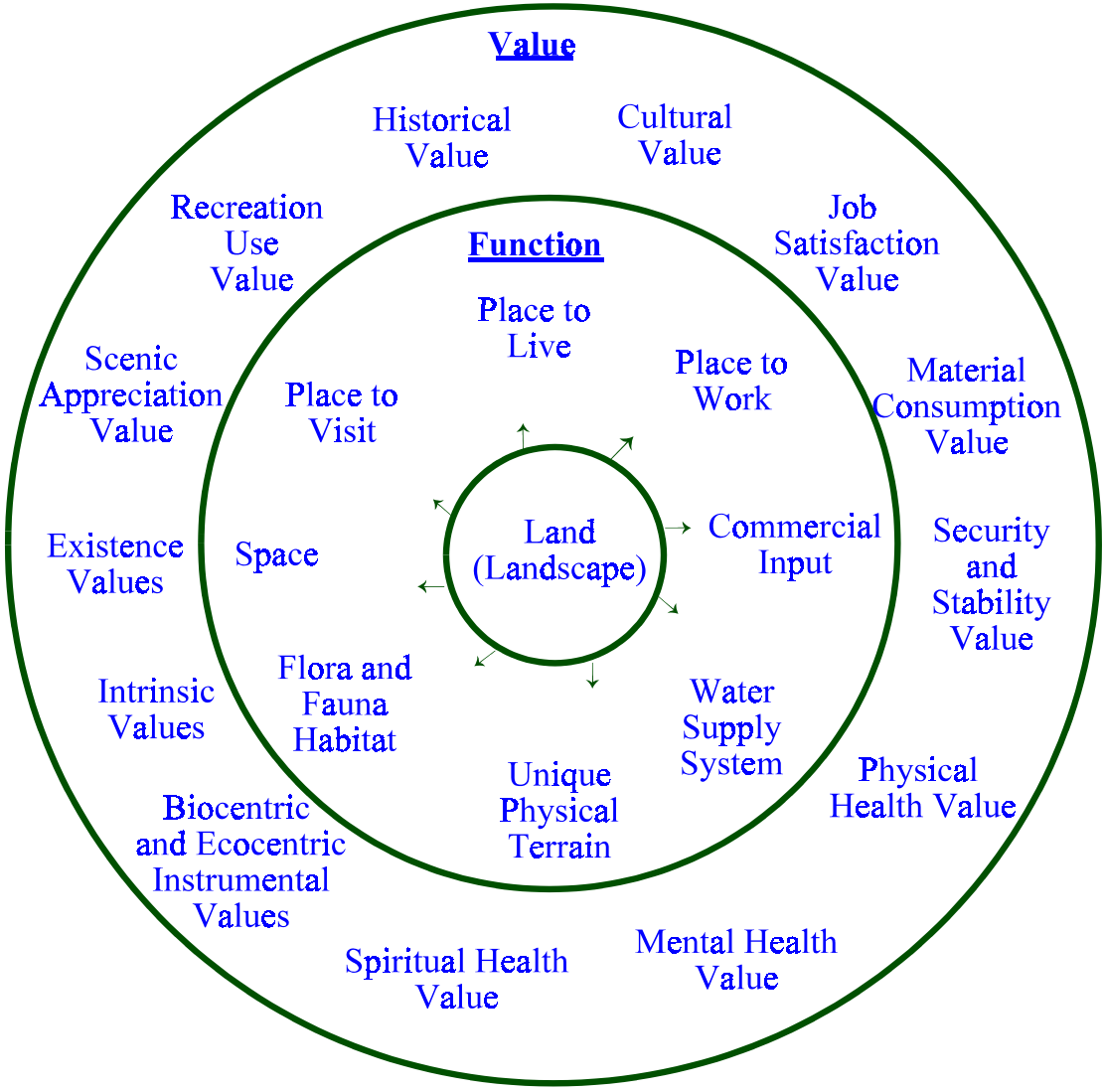


Figure 2. Rural Land or Landscape Functions and Values

Figure 3: Rural Land Value, Beneficiaries, and Institutional Representation

