

# Annotated Bibliography of Social Sustainability as it Relates to Rural Households and Communities

Jason Parker

*The mission of University of Vermont Extension is to improve the quality of life of Vermonters by providing research-based educational programs and practical information concerning Vermont communities, families and homes, farms, businesses, and the natural environment. – UVM Extension*

*To produce goods and to conserve resources on a sustainable basis requires the persistent functioning of a social group. – John Bennett, 1993*

## **Overview and Objectives**

Extension and CALS need a consistent set of metrics to evaluate social sustainability. Such a set should address the growing realization that household and community well-being are integral components of a sustainable and prosperous agriculture. Moreover, the scope of “social sustainability” should be examined and defined in the context of sustainable agriculture and agroecosystems and the metrics should include a concise set of questions that yield reliable data for reporting, program evaluation, and research.

## **Introduction**

There are two goals to this review that are to be achieved in succession and work to facilitate our UVM Extension mission “to improve the quality of life of Vermonters.” Operationalizing our core values of diversity, stewardship, quality research and outreach, communication, and efficiency, the first goal addresses the immediate needs of UVM Extension by identifying indicators of social sustainability that can be assessed through post-Extension programming evaluations. The second goal identifies criteria of social sustainability that are salient to both Vermonters and Extension, and which are readily measurable.

Sustainable development research and policy integrates economic and environmental dimensions in defining the scope of a sustainable future. It is clear that social dimensions of sustainability (referred to by various authors as capitals, components, pillars, themes, and criteria) are in the minds of researchers and policy makers but are rarely integrated in research and policy with the other two dimensions of sustainable development (i.e. economic and environment). In fact, some authors view the social dimension as providing the background for sustainable development or as an overarching, yet vaguely defined, outcome of sustainable development, but not an equal aspect. In addition, the use and placement of the social dimension in models of sustainability vary by discipline with physical and social scientists variously placing it at the center, on an equal level as others, or as a peripheral other.

I did not find many empirical evaluations of social sustainability at the rural household or local level that would yield indicators from which we can work. Moving forward, we should work to synthesize these sources in this literature with other known household and local indicators to build a framework of social sustainability applicable and appropriate to the Vermont context.

With the exception noted below, this literature review is comprehensive but not exhaustive. Many authors appear together on multiple papers and share ideas and concepts fluidly so it is not necessary to present all papers. One area that is not fully explored is the “agroecosystems health” literature that approaches the concept of sustainability from an agroecology and “healthy systems” perspective. This literature often includes some measure of community that can be evaluated to determine whether to include it.

### *Role of Extension*

This review emphasizes the capacity building and facilitation of information as roles for Extension. Communities can benefit from leadership training and information diffusion education programs offered through Extension materials and activities. These can be the foundation or add to the development of critical capacities that facilitate leadership, decision making and problem solving at the household and community levels. Extension educators will benefit from approaching their stakeholders in a collaborative and partnership approach rather than simply instructional.

## **Section I: What is Social Sustainability?**

Definitions of social sustainability vary by author but many common themes emerge that are presented in Section II.

Assefa, G., & Frostell, B. (2007). Social sustainability and social acceptance in technology assessment: A case study of energy technologies. *Technologies in Society*, 29, 63–78.

Social sustainability is only an outcome of development achieved through economic and environmental sustainability.

Biart, M. (2002) Social sustainability as part of the social agenda of the European community. In: *Soziale Nachhaltigkeit: Von der Umweltpolitik zur Nachhaltigkeit?* (ed. T. Ritt), Arbeiterkammer Wien, Informationen zur Umweltpolitik 149, Wien, pp. 5–10.

Social sustainability “aims to determine the minimal social requirements for long-term development and to identify the challenges to the very functioning of society in the long run.”(6) This definition is translated from German by Colantonio (2011).

Littig, B., & Grießler, E. (2005) Social sustainability: A catchword between political pragmatism and social theory. *International Journal of Sustainable Development*, 8(1–2), 65–79.

Social sustainability “signifies the nature-society relationships, mediated by work, as well as relationships within the society. Social sustainability is given, if work within a society and the related institutional arrangements satisfy an extended set of human needs are shaped in a way that nature and its reproductive capabilities are preserved over a long

period of time and the normative claims of social justice, human dignity and participation are fulfilled.” This concept is rooted more in practice and political agendas than theory.

Polese, M. & Stren, R. (eds) (2000) *The Social Sustainability of Cities: Diversity and the Management of Change*. University of Toronto Press, Toronto, Canada.

“Development that is compatible with harmonious evolution of civil society, fostering an environment conducive to the compatible cohabitation of culturally and socially diverse groups while at the same time encouraging social integration with improvements in the quality of life for all segments of the population.” (15-16)

Emphasizes economic development, civil society, cultural diversity and social integration.

Rogers, D., A. Duraiappah, D. Antons, P. Munoz, X. Bai, M. Fragkias, and H. Gutscher. 2012. A Vision for human well-being: transition to social sustainability. *Current Opinion in Environmental Sustainability* 4: 61-73.

“Social sustainability emphasizes living in ways that can be sustained because they are healthy and satisfying for people and communities. This requires providing for material, social and emotional needs, avoiding behaviors that result in poor health, emotional distress and conflict, and ensuring that we do not destroy the social structures (such as families and communities), cultural values, knowledge systems and human diversity that contribute to a vibrant and thriving human community. In other words, social sustainability means meeting the needs for human well-being.”(63)

Sachs, I. 1999. *Social sustainability and whole development: exploring the dimensions of sustainable development*. In: Egon and Thomas (Eds.), *Sustainability and the social sciences: a cross-disciplinary approach to integrating environmental considerations into theoretical reorientation*, Zed Books, London.

“Basic values of equity and democracy, the latter meant as the effective appropriation of all human rights – political, civil, economic, social and cultural – by all people.” (27)

Social sustainability is a process and not a state; it is dynamic, not static.

## **Section II: Approaches to Assessing Social Sustainability**

Much of the social sustainability literature focuses on urban spaces and communities to address the fulfillment of basic needs (shelter, food, clean water, employment) and equity (less disparity in access to resources for fulfilling both basic needs and well-being and quality of life criteria). I have included other literature not specifically in the sustainable development discourse. Various terms are used to identify social sustainability.

Chambers, R., & Conway, G. (1992) *Sustainable Rural Livelihoods: Practical Concepts for the 21st Century*, IDS Discussion Paper 296. IDS, Brighton.

*Quality of livelihood, equity, capability to withstand external disturbances, and social safety nets* are key aspects of socially sustainable communities.

Dempsey, N. G. Bramley, S. Power, and C. Brown. 2009. *The Social Dimension of Sustainable Development: Defining Urban Social Sustainability*. *Sustainable Development* 19: 289-300.

Urban focused discussion of the main dimensions of social sustainability that include overlapping concepts such as social capital, social justice, engaged governance, social cohesion, social inclusion and social exclusion. They are *social equity* and *sustainability of*

*community*. Dempsey et al. define these in the following manner: equity is the reduction of unequal access to resources that enhance well-being and quality of life; sustainability of communities encourage social networks and interaction, encourages participation in community groups, instills a sense of pride and place, and ensures security and safety of its members. Social sustainability is a dynamic concept, it is “neither an absolute nor a constant” (292). Social sustainability is scale dependent with concepts relating to national, state and local scales, for example social integration and environmental quality are said to be applicable at local scales. The relationships among these two concepts fall under the themes of *social equity* and *sustainability of community*.

*Social equity* is rooted in social justice literature and has accessibility as its central measure: access to education, housing, public services, social infrastructure (places for meeting and activities), green space, culture, recreation. Local services include: medical, post office, food market, banking, schools, restaurants, library, sports and recreation facilities, public space. Criteria for equity include:

- No exclusionary or discriminatory practices
- Accessibility is a common cited measure of equity in a service, facility or resource.

*Sustainability of community* is a measure of the ability of society to “sustain and reproduce itself at an acceptable level of functioning” (293) in which social capital and social cohesion facilitate norms of reciprocity, and formation and maintenance of social networks and other social structures that foster the interaction of members and the stability of the community. Social structures include formal (schools, local government agencies, boosters, PTOs) and informal (ad hoc community or special interest groups) institutions that lend support to families and households. Five dimensions include:

- social interaction and social networks in the community
  - density and knowledge of relationships
  - obligations and expectations
  - type and depth of social capital among individuals, families, and communities, impacts social cohesion (integration of behavior among residents)
- participation in community life
  - a domain of social capital, related to degree of social integration and cohesion
  - participation in organized activities
  - participation in formal and informal institutions
- community stability
  - presence of long-term residents, less social mobility
  - some communities cater to specific mobility needs of residents, like college neighborhoods
- pride and sense of place among members
  - positive attachment to a place
  - sense of community through interaction with others, belonging
  - relationship between shared norms and values and feelings about a community
- security and safety of residents

- perceived safety allows others to feel free to interact and participate in the community
- “free of crime and disorder”

\*\*A relational model could look like this (based on my interpretation of the text):

Social Capital (individual, household, community) → Social Organization (collective groups) → Social Cohesion (integration of values and normative behavior)

Flora, C., & Flora, J. (with Fey, S.). (2004). *Rural communities: Legacy and change* (2<sup>nd</sup> ed.). Boulder, CO: Westview Press.

The Floras discuss the seven *community capitals* that pattern social, economic, and environmental relationships, or the structure of agriculture, in rural communities. Each community draws on its strengths and weaknesses to pattern internal and external social interactions in addition to interactions with the environment. For example, communities that are financially poor may lack built capital and rely on more social and human capitals. Communities with capital deficits are likely to exhibit greater levels of poverty and inequality. Like other community criteria, the capitals provide indicators at the community-level.

- \*Human – collection of skills and information embodied in a community that can be applied to community needs.
- \*Social – the balance of social relationships shaped by bonds between individuals and among groups that can be drawn on for information and assistance.
- Natural – the natural resources found in a community and access to them.
- Financial – access to capital, money .
- Built – the infrastructure and facilities available to a community.
- \*Cultural – worldview and traditions that shape how a community interacts and the perceptions, goals, and motivations of its members.
- \*Political – access to policy decision making through social networks with people in positions of power and authority.

\* indicates the capitals that most relate to social sustainability

The concept of community capitals is similar to earlier anthropological concepts like Julian Steward’s “culture core” as that part of society that structures relationships, shapes values, and defines prestige.

Goldschmidt, W. 1978. *As You Sow: Three Studies on the Consequences of Agribusiness*.

“As You Sow” explains findings from an examination of three rural agricultural communities in California at the beginning of the industrialization of agriculture and expansion of farms to larger scale. The findings reveal that community structure and quality of life of residents are related in such a manner that lower quality of life measures were found in the community dominated by the presence of large and small scale farms and consolidated land ownership with workers having managerial or labor roles. Higher quality of life measures were found in the community with a majority of medium scale and family operated farms of dispersed ownership. Goldschmidt’s hypothesis was that there

was a relationship between farm scale, structure and community well-being. An entire body of literature exists to support this research with very few articles finding no support for these findings.

Jackson-Smith, D. and F. Buttel. 2003. *Social and Ecological Dimensions of the Alternative-Conventional Agricultural Paradigm Scale*. *Rural Sociology* 68(4): 513-30.

An analysis of the Alternative-Conventional Agricultural Scale (ACAP) framework that is used to identify the paradigm (alternative or conventional) from which a farmer or agricultural specialist operates with the underlying assumption that the “alternative” paradigm is most beneficial to farm households and communities. There is a large body of ACAP literature, Jackson-Smith and Buttel’s work offers a good overview and critical analysis of it. Finding support previous findings that organic and sustainable farmers have different reasons for farming than do conventional commodity farmers. However, the differences are not simple dichotomies as is found in much of the ACAP literature in which farmers are characterized based on alternative or conventional environmental and social values. However, Jackson-Smith and Buttel find a broader set of categories explaining reasons for farming that include *family, lifestyle, environmentalism*.

- *Family farmisim*
  - small to medium farms best serve America’s ag needs
  - healthy rural communities are essential to the future of ag
  - tech should make farm labor more rewarding and enjoyable, not replace it
  - farmland ownership should be limited to encourage more farmers
  - farms should include crops and livestock
  - fewer farmers and larger farms is a negative outcome
  - farmers should farm only as much land as they can care
- *Farm lifestyle:*
  - farming is a way of life
  - primary farm goal is to improve product quality and enhance long term condition of their farms
- *Farm environmentalism:*
  - land should be farmed using methods that ensure its production capacity now and in the future
  - farmers should primarily use natural inputs and production methods
  - high energy use makes American farming less resilient
  - farmers should farm only as much land as they can care for.

Lyson, T. 2004. *Civic Agriculture: Reconnecting Farm Food and Community*.

Lyson’s thesis is that there is an interconnection between people and food production and consumption that compels a civic duty to support local producers. People that feel a civic duty to support and invest in local agriculture support their rural communities through economic development and growth. He outlines factors necessary for a civic agriculture that can be examined for this work.

I included this well known book because it makes the connection between household and the environment through agriculture and healthy rural communities without an explicit connection to the sustainable development literature.

Murphy, Kevin. 2012. The social pillar of sustainable development: a literature review and framework for policy analysis. *Sustainability: Science, Practice, & Policy* 8(1): 15-29.

Through a literature review on social sustainability, Murphy reviews 8 frameworks spanning international United Nations and EU and multilateral frameworks, green social policy, environmental justice, social sustainability, ecological modernization, environmental policy integration (EPI) literatures as they relate to sustainable development. The environment is a central focus of the framework he develops.

Social sustainability is a vague concept that needs to be further developed with greater connections made to environmental sustainability. Murphy suggests that there are 4 concepts in the social pillar, each of which relates to the environment. From his Table 4 “a social pillar to sustainable development”:

- equity
  - curbing the export of pollution
  - economic transfer rather than nutrient- or carbon-trading mechanism
  - assist vulnerable groups
  - protection of future generations through reducing consumption
- awareness for sustainability
  - designing and implementing educational programs
  - embrace non-material conceptions of happiness
- participation
  - inclusion in environmental planning processes and decision making
- social cohesion
  - infrastructure to promote social cohesion
  - promote social activities aimed at environmental goals
  - develop transition towns” or similar initiatives to show examples
  - combat conditions that cause civil strife

Parent, D., V. Belanger, A. Vanasse, G. Allard, and D. Pellerin. 2010. 9<sup>th</sup> European IFSA Symposium, 4-7 July 2010; Vienna, Austria.

Not a lot of work done on indicators of sustainable development in agriculture, even less effort has been put into social indicators. Parent et al. uses a literature review to develop a set of social sustainability indicators based on two guiding principles: practicality of operationalizing the indicator, and usefulness of the information obtained through the indicator. Twenty indicators are identified and categorized into 4 components of social sustainability, from Table 4 “four components and 20 indicators for the social aspect of the DELTA method”:

- quality of life
- social integration
- farm succession
- entrepreneurship

San Mateo County. 2012. Indicators for a Sustainable San Mateo County. Sixteenth Annual Report, May 2012. Last viewed 12 Dec 12 <http://www.sustainabilityhub.net/media/2012IndicatorsforWebFinal.pdf>

Sustainability is “viewing the relationship between our actions today and their effect on the future” that is found in the intersection of a “three-Es” of vibrant Economy, socially Equitable community, and a healthy Environment. Social equity includes:

- good schools
- affordable housing
- basic services for comfortable living
- individual responsibility for the community

A summary of indicators for social equity include:

- incidents of child abuse
- access to quality child care (cost of care, child to care giver ratio, location/distance to residence)
- crime rate
- educational attainment of household members
- homelessness in community
- poverty related to cost of living
- access to healthcare and health insurance
- disease management and prevention (healthy food access – food deserts and swamps, walkability, neighborhood safety)
- access to safe and reliable transportation
- population dynamics (ratio of workers to dependents).

Sullivan, Preston. 2003. Applying the Principles of Sustainable Farming. Appropriate Technology Transfer for Rural Areas (ATTRA) Bulletin. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=295> Last viewed 15 Dec 2012.

5 Principles of Social Sustainability (2) are presented that include:

- “The farm supports other businesses and families in the community”
  - Connect with local consumers
  - Consumer oriented approach to farming
  - Collaborating with local farmers instead of competing
- “Dollars circulate within the local economy”
  - Buying supplies locally
- “The number of rural families is going up or holding steady”
- “Young people take over their parents’ farms and continue farming”
  - Communication – free to speak about opportunities and challenges
  - Spend time together
  - Perception of support (see other reference on this)
  - Trust
  - Common values and goals
  - Decision-making: inclusion in decision and participation in achieving goals; achieving goals
- “College graduates return to the community after graduation”

\*Axiom: diversification of farm and value-added economic models feedback to social components. In order to participate locally, your crop should require inputs available locally and be aligned with local market demand.

### **Section III: Potential Indicators of Social Sustainability**

This section includes a summary of concepts that anthropologists and rural sociologists use to identify quality of life, well-being and overall success of rural households, which fit under themes of social sustainability. I believe that many of these concepts can be used to guide the development of questions or support the use of existing questions falling under the themes. These concepts include individual and household, social networks, intergenerational farm succession, and ideas derived from the diffusion of innovation literature.

The four themes of social sustainability described by Parent et al. (2010) and one from Dempsey et al. (2011), *equity*, are adopted for the Vermont model of social sustainability. This is largely because they satisfy both criteria of meaningfulness and measurability and overlap well with most other themes identified by the other authors in Section II. More importantly, they fit well with evidence from supporting literature that follows. In review, the five themes are:

- Quality of Life
- Social Integration
- Farm Succession
- Entrepreneurship
- Equity

It is worth noting that intergenerational farm succession is a concept that is intuitively known in Extension to be important and is one that many authors agree is critical to understanding farm and rural community success. Succession emerges in the literature as a process that is intimately interconnected with other social, economic, and structural dimensions of the farm.

#### ***Quality of Life***

There is an expansive body of literature on quality of life measures that range from the subjective to the objective, such as Goldschmidt. Well-being is related to quality of life and has itself a vast literature.

Lobao, L. and K. Meyer. 2001. "The Great Agricultural Transition: Crisis, Change, and Social Consequences of Twentieth Century US Farming." *Annual Review of Sociology* 27:103-125.

Reviews three literatures that document the transition and crisis in agriculture that occurred in the last century and climaxed in the 1980s. These include: macro-level national

transformations, community impacts, and household responses. Research on household responses focus on two threads of investigation: labor and social-psychological factors.

As farms transitioned to larger, more industrialized materials and processes, roles of labor for men and women become more gendered: women performed bookkeeping and household tasks and men's work was connected directly to farm production, except when farms are smaller or less profitable then women contributed more to production. Off-farm work for women and men becomes more important as farms become smaller. Social-psychological research investigated the impacts of stress from farm crisis in which economic hardship was correlated with negative mental health outcomes. Age was a factor as well with younger, more educated farmers bearing greater stress and hardship because they overcapitalized during the farm crisis while older farmers that were more established fared better. (These findings connect with family life cycle analysis)

Lobao, L., and C. Stofferahn. 2008. The community effects of industrialized farming: Social science research and challenges to corporate farming laws. *Agriculture and Human Values* 25: 219-240.

In the tradition of Goldschmidt, this work reviews current research examining the effects of industrialization in the farm sector on rural communities. Quality of life indicators tested in this area include the following negative outcomes of farm consolidation and industrialization: lower incomes and education levels for working class labor and increased poverty, decreased community services in communities dominated by large scale farms, decrease in social participation and integration of communities and higher levels of mental disorders, lower work satisfaction, lower well-being measures (happiness, other psychological satisfaction measures) in large scale agricultural communities, decreased employment opportunities and lower job quality, safety and crime, less diversity and fewer retail centers, and environmental pollutions and depletion of energy resources. There are many other effects presented that are found at the community level.

Rogers, D., A. Duraiappah, D. Antons, P. Munoz, X. Bai, M. Fragkias, and H. Gutscher. 2012. A Vision for human well-being: transition to social sustainability. *Current Opinion in Environmental Sustainability* 4: 61-73.

This work presents a review of literature on concepts and actions that need to occur in order to move societies toward social sustainability. It outlines approaches to assessing well-being, which is at the center of a model for social sustainability. They present a cause and effect relationships between human social institutions and ecosystem services that leads both to human well-being and to healthy ecosystems. They also provide an overview of well-being assessments, which include:

- Objective Well-Being (OWB)
  - food
  - housing
  - clean water
  - health
  - education
  - personal security
- Subjective Well-Being (SWB)
  - happiness
  - physical and mental health

- exercise
- stable intimate relationships
- employment
- personal relationships and opportunity for socializing
- involvement in religious activities
- trust of most people
- feeling of personal safety
- democracy
- Comprehensive Well-Being (CWB)
  - physical well-being
    - proper nutrition
    - clean water
    - adequate shelter
    - good health (disease protection, access to healthcare and aids, birth control)
    - security (protection from harm, crime, conflict and disaster)
    - material goods needed to live
    - energy source
    - livelihood and means to achieve one
    - exercise, relaxation and rest
  - emotional and social well-being
    - strong families
    - strong community and interactions
    - social equality
    - ability to trust others
    - identity and self-determination
    - freedom to choose residence, work, relationships
    - empowerment and participation
    - education, knowledge
    - creative outlet
    - recreation time and space
    - opportunities to connect with nature and beauty
    - sense of meaning, belief system
    - hope

### ***Intergenerational Farm Succession and Enterprise Adaptation***

A critical component to the persistence of farms in rural communities is the ability of farm households to successfully reproduce, to complete the intergenerational farm succession process, in which the enterprise is transferred from one generation to another internal or external heir, and adapt the enterprise to new social, market and environmental conditions.

Family farming is an organic process rather than mechanical in which succession, management, and persistence are interconnected. The family life-cycles are related to the enterprise management and succession directly influences the growth or decline of farm

enterprises. In the process adaptation household needs are determined by size and composition of members (Bennett 1982, Salamon 1992, Potter and Lobley 1996).

[Bennett, J. 1982. \*Of time and the enterprise: North American farm management in a context of resource marginality\*. Minneapolis, MN: University of Minnesota Press.](#)

The “agri-family” system is the coupling of farm enterprise with farm household and encompasses all members as part of the decision making process. Relationships among management and lifecycle influence the growth or decline of the enterprise. Family farm lifecycles have “a start, a middle, and then perhaps another start. Succession processes promote growth behaviors through innovation and expansion as farmers work to adapt the farm to support more people and adopt new strategies. The important question is how this historical sequence differs from one enterprise to another.” (299) Relating to family life cycle, young farmers with children and enterprises needing to support more people often work to increase production through a variety of means to meet that goal. Management style is interrelated with the quality of the enterprise and succession, as is the innovativeness of the household.

[Johnsen, S., 2004. The Redefinition of family farming: agricultural restructuring and farm adjustment in Waihemo, New Zealand. \*Journal of Rural Studies\* 20, 419-432.](#)

A study of the changing dynamics of the family farm in New Zealand and factors contributing to the ability of households to their enterprise adapt. “It appears that the resilience and entrepreneurial tendencies of family farmers are most visible during times of dramatic restructuring, when the very ability of a farm family to ‘survive’ may hinge upon its willingness to modify the farm operation.” (429)

[Potter, C., Lobley, M., 1996. Unbroken threads? Succession and its effects on family farms in Briton. \*European Society for Rural Sociology\* 36 \(3\), 286-306.](#)

An analysis of intergenerational farm succession in the UK and its role in farm and community persistence. The life cycle of the farm family is an important influence on farm management, enterprise growth, and succession, farms with a successor are likely to persist and expand operations. Those without are likely to decline and disengage from agriculture. The authors define farm statuses related to succession that have an aggregate impact on rural community vitality. They are: Recent Development, Consolidation, Stabilization, Disengagement, Withdrawal.

Farm succession is a process that is interconnected with farm expansion, investment, training, and marketing. The timing and planning of succession are integral to the future success of the farm. If the farmer and heir wait too long then the heir is likely to be as conservative in ideas and practice (similar to Bennett’s managerial style) as the farmer and have less flexibility to make necessary changes to the operation. This inflexibility is likely to hinder the ability of the farm to be adapted to changing conditions.

[Salamon, S., 1992. \*Prairie Patrimony: Family, Farming, and Community in the Midwest\*. University of North Carolina Press, Chapel Hill.](#)

Internal household dynamics influence succession and persistence of family farm. In addition to internal dynamics, external dynamics influence the persistence of farming communities. These include the household dynamics of making difficult decisions about the

development of the farm and household member goals. Salamon identifies two ideal types of household and farming communities, Yankee and yeoman farmers. These types correspond to historically British and German approaches to farming, respectively. The former views farming as a means to livelihood in which land is a commodity and farming is conducted for profit. The latter views farming as a way of life and places emphasis on community and farm household continuity, sense of place, and agrarian tradition. It goes without saying that the yeoman approach also relies on profitability, and that these ideal types are for categorization and that most farm households fall somewhere between these two types on a continuum. The balance that is struck influences the success of that farm over the long term.

### ***Entrepreneurship***

Chase, L., D. Kuehn and B. Amsden. *In Press*. Measuring Quality of Life A Case Study of Agrotourism in the Northeast. *Journal of Extension*.

There is a need for Extension to be able to measure program effects on quality of life that include long term impacts perceived by individual participants. This research examines subjective quality of life in the form of personal satisfaction among farmers and other agrotourism providers in the Northeast region. Changes in *personal time* and *personal satisfaction* among farmers in this entrepreneurial approach were identified as important quality of life indicators on which Extension programming has had an impact.

Inwood, S., and J. Sharp. 2012. Farm persistence and adaptation at the rural-urban interface: Succession and farm adjustment. *Journal of Rural Studies* 28: 107-117.

The process of farm succession creates distinct adaptations of farm enterprises located in Rural-Urban Interface (RUI) areas and entrepreneurship is a key component of successful farms. Adaptation takes three forms that incorporate existing resources, family life-cycle and household composition and goals:

- conventional or commodity farming enterprises
- mixed or diversified enterprises
- Alternative Food and Agriculture Enterprises (AFAEs are farms that incorporate entrepreneurial consumer oriented activities like direct marketing and value adding, including agrotourism).

Findings indicate a strong relationship among existence of a farm heir, farm growth, and successful farm adaptation. Conversely, farm households without an identified heir exhibited less growth, were less adapted to new conditions, and in some cases began to disinvest in farming through the sale of assets. Farm households with identified heirs had three adaptation strategies that include:

- horizontal expansion of the enterprise through acquiring more land, stock, or facilities
- intensification of the enterprise through value adding to existing resources
- vertical entrepreneurial stacking of additional independent but complementary enterprises on the same resource base.

## ***Equity: Information and Social Networks, Farm Scale and Support***

Building on Dempsey et al. (2011), equity in the context of rural communities can be measured by accessibility to a resource, service or institution. Extension's impact on equity can be assessed through an evaluation of access to its programming and resources. In addition, Extension's impact on social sustainability of farm households and rural communities is linked to their access to important information channels and sources. Underserved populations have a special status in the Land Grant University (LGU) system that requires constant evaluation to ensure that these groups have access to LGU resources. In addition, information and support, and perception by stakeholders of the real and perceived access or barriers to access are critical to ensuring equity.

In addition to information, farmers' perceiving that institutions are capable of supporting their needs is important to success on both sides.

Chan, E., and G. Lee. 2008. *Critical Factors for Improving Social Sustainability of Urban Renewal Projects*. *Social Indicators Research* 85(2): 243-256.

Study reviewing factors that enhance sustainable urban design emphasize social components. The study was conducted in Hong Kong and consisted of a survey questionnaire administered to planners, design professionals, and residents to assess design factors that influence sustainability. They include:

- social infrastructure
  - the built environment that facilitates access to service and social interaction
- town design
  - functional, enjoyable and facilitates social interaction
- accessibility
  - work and leisure should not require traveling long distances
- availability of jobs
  - good employment opportunities
- fulfillment of psychological needs
  - promoting feelings of security and encouraging open participation
- preservation of local character
  - preserving uniqueness

Duram, L. 2005 *Good Growing: Why organic farming works*. Lincoln: University of Nebraska Press.

Duram provides an overview of US organic farming and describes current organic research and five case studies of organic family farms. The part of this work that is applicable to this review is the discussion of regional variation in organic farming scale and information sharing. The latter being the more important component. Preferences for information sources vary by region. Duram reports that Midwestern (IL) farmers report getting most of their information from other farmers, Central (CO) farmers stated that they guard their buyers and do not share marketing information, while West Coast (CA) farmers said they do not share much information at all because of market competition (CA). These regional variations in information sharing will likely impact the effectiveness of social networks as conduits of information.

Padel, S. 2001. Conversion to organic farming: A typical example of the diffusion of an innovation? *Sociologia Ruralis*, 41(1), 40-61.

In an examination of farmers' experiences converting to organic farming in Europe, Padel asserts that the grassroots nature of organic agriculture and its need for local "knowledge-networks" of farmers. This local need makes the traditional Extension "innovation diffusion" model less relevant. This reliance on networks extends to the creation of knowledge-networks or learning circles that work in combination with researchers and advisers. Researchers and advisers need to be integrated into these networks. This is perhaps the best way to disseminate information about organics but has challenges, the greatest of which is gaining access to organic communities by researcher and Extension agent. This can be achieved through a participatory process that values farmer input and adjusts based on the knowledge and needs of both sides.

Padel, S. 2008. Values of organic producers converting at different times: results of a focus group study in five European countries. *International Journal of Agricultural Resources, Governance and Ecology* 7(1/2): 63-77.

This paper presents information from organic farmers' experiences in five different EU states: Austria, Italy, the Netherlands, UK, and Switzerland. Findings include that farmers at different stages of the adoption process share the same values but face different farming challenges and thus need access to information relevant to their stage of adoption (e.g. weed management in early transition may require a different skill set than in late or full organic production). Some farmers will form apprentice-like relationships to access this information. The success of these farmers is often dependent upon the breadth and depth of knowledge in their social-network.

Turner, R., G. Davies, H. Moore, A. Grundy and A. Mead. 2007. Organic weed management: A review of the current UK farmer perspective. *Crop Protection* 26: 377-382.

Examines farmer perspectives on organic weed management. For the purposes of this review, the important element is the importance UK organic farmers place on local ecological knowledge, which shapes their information needs and social networks. The importance of a "local" network is based on the need for information sources that have regional biases. This emphasis on regional bias is due to variation in farming problems across regions – organic farmers want information specific to their area since they cannot rely on herbicides and other quick fix approaches.

Yapp, C. and R. Fariman. 2006. Factors affecting food safety compliance within small and medium-sized enterprises: implications for regulatory and enforcement strategies. *Food Control* 17: 42-51.

This article describes factors influencing the adoption of food contamination prevention strategies in small and medium size food enterprises in the UK. It is useful to the understanding of enterprise scale and factors influencing success related to access to information by small and medium scale farmers. Seven barriers to compliance were identified of which a few extend beyond this framework to information access. They include: time, money, experience, access to information, *lack of support due to real or perceived bias towards larger enterprises*, lack of interest, and lack of knowledge. (The real or perceived lack of support is a critical barrier for some organic and sustainable farmers.)