

# **Value Chain Partnerships for Sustainable Agriculture**

## **Final Report**

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# Project Summary

The goal of the *Value Chains Partnerships for a Sustainable Agriculture (VCPSA)* Project is to use cooperative approaches to foster the growth of value chains in which small and midsize farmers are rewarded for production practices that are rooted in the principles of sustainable agriculture. A value chain is the network of partners that come together to satisfy market demand for a particular food or fiber product.

The project strategies involve engaging Iowa State University, and its public and private partners in providing the producers, processors, distributors and retailers of these highly differentiated value chains with the tools they need to support existing or develop new value chains. Toward this end, the VCPSA project has laid out the following objectives:

1. Support the growth and/or development of up to three economically viable, environmentally friendly value chains that will lead to a 20 percent increase in the number of markets and a 15 percent average price premium (compared with conventional products) for participating Iowa producer groups.
2. Engage ISU and other service providers in collaborative research and development efforts designed to support value chains rooted in sustainable agriculture. Engagement efforts will result in sustained research and development support for sustainable agriculture value chains at ISU.
3. Strengthen relationships and interdisciplinary linkages at ISU and between ISU and other partners working on the development of sustainable food systems. These efforts will result in the institutionalization of at least two new collaborative and interdisciplinary programs based at ISU or a partner organization.

A growing number of Iowa-based agricultural businesses share a commitment to economic, environmental, and community sustainability. These farmer-led businesses have the potential to counter the prevailing tide in agriculture where the fabric of rural communities is eroding with fewer farmers on larger farms. Market demand for farm products with social and environmental attributes has created an opportunity to grow these businesses to significantly benefit farmers and communities.

VCPSA has used a community of practice model<sup>1</sup> to establish four groups with high levels of trust among core VCPSA partners, participating farmer-led businesses, and technical assistance providers in order to provide research and development (R&D) support to agricultural businesses that participate in supply chains where farm products are raised using sustainable practices.

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<sup>1</sup> Wenger, E., R. McDermott, and W. Snyder. 2002. *Cultivating Communities of Practice*. Harvard Business School Press, Boston, MA. Communities of Practice are groups of people who share a concern for a set of problems and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.

The four communities of practice function strategically as:

- *Catalysts for cooperation* of diverse interests to create solutions for food and fiber producers and businesses;
- *Hubs* which create, capture, document, leverage knowledge, and deploy this knowledge as technical assistance to create solutions for value chain partners;
- *Lightning rods* to attract funding and for leveraging, channeling, and distributing funding for research and development efforts for differentiated products
- *Scouts* to identify emerging value chain opportunities with high potential to deliver economic benefit to sustainable agriculture stakeholders.

### **Activities and successes**

Key services provided by the VCPSA project between 2002-2006 include:

- Identified market opportunities for differentiated food and fiber products;
- Optimized the size/structure of the value chains such that company values are maintained;
- Developed pricing models to fairly reward farmers in the chain;
- Developed (or refined) marketing strategies for brands, products, and services;
- Determined farm-level cost of production and effective cost management strategies;
- Addressed other production-related challenges at the farm level; and
- Determined methods to document the economic impact of the project on participating businesses and farmers, and the impact these businesses have on the state's economy.

VCPSA team members are developing unique expertise in two knowledge domains: 1) Successfully organizing and managing *Communities of Practice* and 2) Understanding the conditions and processes that foster or hinder the development of value chains characterized by trust, cooperation, transparency and risk sharing. We have begun to document the conditions, strategies and processes that foster development of successful values-based supply chains, and to explore models of collaboration where that competing farmer-based groups can access markets and reduce operating costs.

## Progress Toward Goals

From 2002 through June 2006, VCPSA has achieved the following:

- Nurtured collaborations across three Colleges at Iowa State University and more than 25 Iowa-based agencies, farmer groups, and nonprofit organizations;
- Assisted more than 20 Iowa food and fiber businesses through its four working groups;
- Initiated and facilitated collaboration between the ISU Colleges of Agriculture and Business that led to the nation's first MBA with a minor in sustainable agriculture (one student has graduated and a second set to graduate in December 2006);
- Provided funds for 46 research and development projects exceeding \$265,000;
- Generated more than \$818,000 in grants from the USDA and other sources for niche pork markets;
- Generated more than \$319,000 in grants for bioeconomy research and market development;
- Catalyzed a group of faculty from ISU to form a team to evaluate the feasibility of a sustainable, integrated system of biomass production and processing. The team was recently awarded a \$1.8M award to study the system;
- Engaged faculty in the ISU College of Business in niche agricultural marketing issues – 10 faculty have been involved;
- Secured a \$400,000 NRI research grant to address production costs and herd-health issues for farmers raising hogs for niche pork markets; (\$400,000);
- Engaged the SYSCO Corporation, the largest food service distributor in North America, in characterizing the optimal business conditions in which farmer networks can sell to larger volume buyers. To date SYSCO has contributed \$70,000 toward the project;
- Posted web pages for all four working groups and published two ongoing newsletters – the *PNMWG Update* and the *BioEconomy Update*;
- Assisted a group of natural pork producers to transform a business from a sole proprietorship into a farmer-owned limited liability company called “Eden Natural” LLC, which allowed the farmers supplying the hogs to share in the ownership of the company and its brand;
- Worked with Woodbury County, Iowa on county policies to incentive farmer transition to organic farming (property tax abatement) and production of local/organic food products for purchase (local food procurement policy). These policies are the first of its kind in the nation;
- Served as a model for the national Agriculture of the Middle project on how to facilitate technical assistance and research and develop for farmer networks participating in value chains; and
- Leveraged over \$2 million in cash and in-kind resources from all sources.

### **Pork Niche Market Working Group (PNMWG)**

During its four-year existence, the Pork Niche Market Working Group (PNMWG) has helped nine niche pork companies and twenty agencies and businesses work together to identify and address challenges facing niche pork value chains. This work included sixteen PNMWG meetings and twenty-three R&D projects supported by grants totaling \$942,657. One result is greater support from non-profit groups and public agencies. More important results include more

successful businesses and the desire by these businesses to cooperate to help assure their continued success. The time has come to move the PNMWG from a VCPSA Community of Practice to a separate entity.

A feasibility study will be conducted on the concept of developing a regional or national trade association of niche pork farmers and farmer-led niche pork companies. The proposed mission of this new entity is to help these farmers and their businesses succeed, especially in the face of increased competition for niche markets and niche pork farmers. If the study indicates the concept is feasible, a business plan will be developed and implemented. The result will be a unique entity built based on the needs of niche pork farmers using the power of collaboration and empowerment that are at the foundation of VCPSA's Communities of Practice.

### **BioEconomy Working Group**

During its nearly three year existence, the BioEconomy Working Group has helped ten businesses, three producer groups (kenaf, switchgrass, and flax), and ten agencies and organizations work together to identify and address challenges of producers, processors, and manufacturers of biobased products. The BioEconomy Working Group has met twelve times and has defined and conducted eleven R&D projects. The BioEconomy Working Groups has secured \$319,000 in addition to the Kellogg funds to support the R&D work of the group, which has included projects as diverse as conducting the FDA tests for using PLA (biodegradable) bottles for milk products, to growing and testing kenaf for use in composite materials, to logistics studies for transporting corn stover by rail and barge.

Over the next year, the group plans to focus only on the kenaf crop, and build on work already done and in process in the Bioeconomy Working Group to:

- identify markets and market segments for natural fibers with high probability for success;
- assess business and farm profitability of potential configurations for natural fibers processing operations;
- quantify risks assumed and value-adding activities performed by all partners in the natural fibers value networks and apply methods to objectively quantify and “price” the contributions of each partner to the value networks;
- develop business contracts and agreements that assure fair distribution of risks and revenues between partners in natural fibers networks;

### **Regional Food Systems Working Group (RFSWG)**

The Regional Food Systems Working Group (RFSWG) supports education, conducts research, and facilitates partnerships to increase investment and support of community-based, economical sustainable, and environmentally and socially responsible food enterprises. During its three year existence, the Regional Food Systems Working Group (comprised of farmers and representatives from more than 20 different NGOs, educational institutions, and state and federal agencies) has met 13 times and awarded 13 research and development grants. Two small foundations have collaborated with RFSWG to provide supplemental funding to these grantees. In addition to exploring regional retail markets and documenting the economic impact of local food businesses in Iowa, the RFSWG has assisted a regional organic dairy business researching markets and

testing products. It also provided assistance to Woodbury County that led to the approval of a county-based property tax abatement for farmers transitioning to organic, and a local food procurement policy. After extension evaluation of the work of RFSWG, the group has revised its objectives for 2006-07 as follows:

- Develop a more comprehensive and synergistic network of relationships among farmers and producers, food and fiber businesses, NGOs, food system professionals, university, and state agency partners working on local and regional food issues.
- Develop a process for continuous, recursive learning about what it takes to make a regional food system more vibrant and sustainable
- Synthesize and integrate the previous, current, and related learnings of RFSWG and other food system projects by developing a set of criteria, indicators, and baseline assets for a working guideline of a healthy and sustainable regional food system.
- Use, test and refine the set of criteria, indicators and assets by working with specific geographically-identified regional and/or community-based food systems starting in late summer 2006.

Starting in fall 2006, the Leopold Center will provide at least \$25,000 in base funding per year for RFSWG, with the Leopold Center also providing 0.20 FTE staff time to manage the group.

### **Flax Working Group**

The Flax Working Group (FWG) began in 2005 the goal of facilitating the growth and development of value chains for organic and conventional flax. Participants include Iowa farmers, a flax processor (BIOVA) and several flax buyers, including Spectrum Organics and PFI, ISU Extension and Leopold Center staff. With our support last year twenty eight organic farmers in Iowa raised over 1,000 acres of organic flax. In 2006 we hope to expand to forty farmers and over 1,750 acres. This is the first time flax has been raised commercially in Iowa in decades. Additional support for this work has come from Spectrum Organics, Rudolf Steiner Foundation, Grousbeck Family Foundation, Iowa State University Value Added Extension and the ISU Agronomy Endowment fund.

### **VCPSA - lessons learned**

The working group models for PNMWG, RFSWG, Flax, and the BioEconomy Working Group can be adapted and adopted by other states and regions as a way to effectively address challenges confronting small and midsize farmers participating in regional markets. Working groups must be inclusive, have a clear focus, share information in a transparent manner, and have some financial resources in order to attract additional research and development investment. A set of “lessons learned” from the VCPSA project can be found below.

*A communities of practice approach can be very effective in providing technical assistance to small and midsize community-based food and fiber enterprises (CBFEs).*

It is valuable for CBFEs to engage a diverse community with research and business expertise from which useful business or production insight can be generated – not just more information but information synthesized into a whole and made useful to the business.

*Communities of practice can help business competitors work more interdependently.*

VCPSA, together with our community-based food and fiber (CBFEs) entrepreneurial partners, have learned that firms in the same industry – typically competitors – can come together at meetings and mutually benefit from a variety of exchanges of information. We have dramatically expanded sharing of information among several niche pork CBFEs. Bringing in university faculty and staff from widely disparate specialties, business, engineering, and agriculture greatly enhances our ability to assist entrepreneurial CBFEs. Similarly, bringing in private sector experts also greatly improves our ability to assist entrepreneurial CBFEs.

*Knowledge management in communities of practice is a critical service to businesses.*

Participation in communities of practice has enabled each member to establish a clearer understanding of value chain issues and solutions, and has afforded them a clearer understanding of the expansion opportunities available in their markets. Increased knowledge of options for taking advantage of opportunities has given businesses a sense that they have more control over their destiny – something often lacking in the agricultural sector. It seems clear that VCPSA can replicate such cooperation and increased level of understanding in other markets such as natural fibers, organic oils, and dairy.

*Communities of practice can help technical service providers do a better job.*

It is clear that the services provided by government agriculture agencies, government economic development agencies, Extension, bankers, venture capitalists, others in the financial services field, and private consultants generally do not provide an adequate amount or appropriate type of services to help launch CBFEs, but with the development of a community of practice their services can become both adequate and appropriate. Our experience in operating three working groups (on niche pork, bioeconomy, and regional food systems) which function as communities of practice has shown that we can improve the performance of our partnering technical service providers.

*Financial resources are critical for engagement of university and other value chain partners.*

Engaging entrepreneurs and university faculty is far easier if there are monetary resources to entice them. Engaging faculty is difficult unless what we are doing happens to fit directly into that faculty member's specialty and would result in a publishable peer-reviewed journal article. It is a challenge to obtain appropriate expertise from agencies such as Extension. When the appropriate expertise exists, the person is already over-extended in time commitments already and lacking in resources and thus can't readily provide the assistance CBFEs need. It often is necessary to buy out a portion of that person's time in order to make their expertise available to CBFEs.

*There is a need in the marketplace for graduate students with an MBA minoring in sustainable agriculture.*

Funding from the W.K. Kellogg Foundation and the SYSCO Corporation was used to offer two new graduate assistantships leading to an MBA degree with a minor in sustainable agriculture. The first two students in this program have worked directly with VCPSA to understand the business conditions in which businesses offering sustainably-produced food and fiber can thrive in the marketplace. Organic and natural food and fiber businesses that are aware of the VCPSA

project have indicated they would like to hire MBA students with this specialty. The degree program specialty will become institutionalized in the ISU College of Business, and will be supported with funds from the ISU Colleges of Agriculture and Business, along with the Leopold Center.

*Tapping underutilized resources at Iowa State University to assist with the development of value chains has been critical to the success of VCPSA.*

Examples include faculty at the ISU Colleges of Business and Engineering, the ISU Center for Transportation Research and Education, and ISU's CIRAS.

*Assessing economic impacts of food and fiber businesses and regional food commerce is critical to stimulate local investment in CBFES.*

A computer spreadsheet has been developed to help assess the potential economic impact of the growth of local and regional food systems. This tool can be linked with economic multiplier effect models to demonstrate the economic impact that these food systems can have on the local or state economy. The tool is being developed further for use with dietitians and other health professionals to connect healthy diets with secondary economic benefits of increased revenue for farm families.

*Helping small and midsize businesses in their efforts to supply large corporations is inherently complex.*

VCPSA has assisted small and midsize CBFES as they work to attempt to supply large food corporations. One of the biggest challenges in the relationship is the difficulty in expanding the supply of sustainably-produced products to meet the volume demanded by these large corporations. Part of the reason for lack of supply is that there are inadequate incentives, technical assistance, and financial capital for growers to take the risk of initiating or increasing production. Examples include the niche pork producers' relationships and potential relationships with SYSCO Corporation; a small soyawax entrepreneur's relationship with Cargill; and several kenaf growers' relationship with a processing firm and HON Industries. Work with SYSCO is beginning to better characterize the business conditions under which producers and producer groups can be successful in supplying SYSCO.

*A key to success for these value chains is a shared understanding of what each partner in the chain needs to be sustainable.*

Through its work in the BioEconomy Working Group, VCPSA developed a matrix that lists measurable criteria by which one determines whether a CBFES of a value chain is environmentally, socially, and economically sustainable. These criteria will prove invaluable in guiding the characteristics of the assistance we provide and to which CBFES we assist.

*VCPSA is now well positioned to move toward a business-centric approach to providing and facilitating services*

VCPSA's efforts have established it as a key hub for technical and financial resources to come together to address key challenges found in food and fiber value chains where participating farmers use sustainable practices. The community of practice approach through which VCPSA does its work has allowed for the development of a high degree of trust among VCPSA, participating businesses, and a diverse cadre of technical assistance partners. The work done

through this current phase of VCPSA has been geared to benefit business sectors (niche pork, sustainably produced fiber, natural dairy) rather than a set of specific businesses. VCPSA will begin to refocus its efforts and expertise on addressing key needs of a specific set of food and fiber businesses.

## **Evaluation Questions**

### **Is the overall picture of each pilot value chain one of success in meeting the project's objectives?**

Whether it is niche pork, kenaf, corn stover, or community-based food production, the working group processes have significantly contributed toward stated FAS outcomes. PNMWG has generated considerable support for niche pork issues from more than 23 organizations along the value chain who, previous to this project, had never gathered together in a collaborative fashion to discuss common interests. This has included contributions and support from organizations such as SYSCO corporation, a leading foodservice marketer and distributor. BIOE has greatly expanded opportunities for fiber-based businesses through partnership with other university and state-based organizations (such as BIOWA and the Iowa Energy Center), sought additional funding through federal research grants, and generated a commitment to increasing the success and profitability of those partners in the working group. RFSWG has focused research and development funding on projects that define the opportunities for CBFEs focused on understanding the economic impacts of, and the opportunities for regional food production, marketing and consumption in the Upper Midwest generally, and the state of Iowa specifically.

The contributions of these project activities include new and enhanced business opportunities, greater understanding along the value chains, and additional funding from organizations such as Iowa State University, Cargill-Dow, and SYSCO. The project team has generated impressive support from project partners, who provide financial as well as community support for the development of VCPSA.

### **What plausible alternatives and evaluative judgments are implied related to continuation, modification, or termination of the project?**

The VCPSA project has reached a point of competence with current activities that signals the ability to proceed to a more developed level of project complexity that would be inherent in a project third phase. These conclusions are based on a developed understanding of the relationships within the three working groups, the ability of the working groups to identify and address barriers and challenges, and the organizational ability of the coordination team.

The Research Institute for Studies in Education (RISE) at Iowa State University has coordinated the evaluation for the VCPSA project. Mari Kemis and Matt Feldmann have served as project and cluster evaluators for the project since its inception. Both also are active members and contributors to the coordination team. More information about RISE can be found at <http://www.educ.iastate.edu/rise/>.

### **Unanticipated outcomes, challenges, other factors affecting success**

THE VCPSA project made the decision to not use project resources to collect metrics that would ascertain if the project was successful in achieving the following objective:

- Support the growth and/or development of up to three economically viable, environmentally friendly value chains that will lead to a 20 percent increase in the number of markets and a 15 percent average price premium (compared with conventional products) for participating Iowa producer groups.

The main reason we did not collect this data also is one of our unanticipated outcomes. The VCPSA project did not expect to be asked to work with an external consultant (Robin Hood Consulting) and participate in an experiment, along with three other Kellogg grantees, to transition to a market-based change cluster. This work, although beneficial to VCPSA in learning how to infuse business thinking in the writing of new objectives and enterprise plans, took an incredible amount of time away from the VCPSA team in 2005-2006 from accomplishing its goals for the project. So much time was spent in meeting with the Robin Hood consultant that there was not adequate financial resources to follow through on collecting metrics for this objective.

A significant factor that affected success was the delays in awarding grants to groups participating in the four working groups. This was due to the requirements of ISU administration and the Leopold Center not having adequate administrative specialist support during part of the grant period. This put much of the responsibility of moving these grants forward on the VCPSA program assistant. Several awards took three to four months before a contract was made available, which delayed the start of these projects.

Other factors that affected success of this project was the departure of Robert Karp, the Executive director of Practical Farmers of Iowa in December 2005, and unexpected resignation of two of the MBA graduate students in May 2006 after serving one year on the project. Robert Karp served as a key member of the VCPSA coordination team and helped lead the Flax Working Group. Although he remains involved in the project through teleconferences and e-mails, some momentum was lost in the project as VCPSA tries to bring the new PFI executive director on board with the project. Two of the MBA with minor in sustainable agriculture students resigned their assistantships in May 2006 to take full time employment. The employers provided a special incentive to these students by providing them an opportunity to complete their MBA in evenings or weekends and paying their tuition and fees. There are no sustainable agriculture courses offered on evenings or weekends so these two students could not finish the sustainable agriculture minor.

## Future Plans

In Phases I and II the Value Chain Partnerships for Sustainable Agriculture (VCPSA) project (2002-2006) was part of the Kellogg Foundation's Higher Education Community Partnership cluster. VCPSA established key partnerships to provide research and development (R&D) support to agricultural businesses that participate in supply chains where farm products are raised using sustainable practices. Using a community of practice model<sup>2</sup>, VCPSA has established four working groups that have developed high levels of trust among core VCPSA partners, participating farmer-led businesses, and technical assistance providers.

The supply chains that are the focus of these communities of practice (CoP) are trying to increase cooperation and synergy; hence the term *Value Chains*. These Value Chains are distinguished from traditional supply chains by: how they operate as strategic partnerships with a level of trust that allows information to flow up and down the chain; how they differentiate their products based on quality, environmental, and social attributes; how they meet consumer needs; and by a greater sharing of risks and rewards.

For the period 2006-2009, VCPSA will participate in the market-based change cluster and work with the Kellogg Foundation, the Wallace Center at Winrock International, Robin Hood Center, and Headwaters. This new phase of the project will build upon the foundation VCPSA has laid in helping farmer-led businesses address challenges as they work with partners in the value chain. VCPSA will participate in a Performance-based leadership approach, with a set of clear measurable goals and objectives that can easily track for progress. An important goal for VCPSA during this period is for VCPSA to continue operation without Kellogg support. The mission statement, goals and three-year objectives for VCPSA Phase III can be found below.

**Mission Statement** - Foster value chains that provide economic, social, and ecological benefits to Iowa farmers, communities, and landscapes.

### **VCPSA Phase III – three-year goals and objectives (2006-2009)**

**Goal 1** - VCPSA services and programs result in significant social, economic and environmental benefits to Iowa farmers, businesses, and communities.

#### **Goal 1 Objectives – 2006-2009**

1. Increase sales for at least 10 participating businesses by an average of 10 percent per year as a direct or ancillary result of VCPSA activities and programs. Total increase in gross sales will be at least \$2,000,000.
2. Increase purchases from farmers by at least 10 participating companies by an average of 10 percent per year as a direct or ancillary result of VCPSA activities and programs. Total increase in gross purchases will be at least \$750,000.

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<sup>2</sup> Wenger, E., R. McDermott, and W. Snyder. 2002. *Cultivating Communities of Practice*. Harvard Business School Press, Boston, MA. Communities of Practice are groups of people who share a concern for a set of problems and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.

3. Improve profitability, market access, operational efficiency, crop/livestock diversity, and/or business relationships for 200 farmers and six businesses as a direct or ancillary result of VCPSA's activities.
4. Increase the purchases of healthy, fresh, and community-based foods in two Iowa communities or counties by 300 percent between 2007 and 2009. Increases will average at least \$100,000 per year.
5. Net at least 50 jobs through the purchases of healthy, fresh, and community-based foods in a total of two Iowa communities (measure in years 2 and 3)

**Goal 2** - VCPSA will become a sustainable multi-organizational program, with strong and stable commitments by its core partners and increasing demand for its services by a wide range of organizations and businesses

**Goal 2 - Objectives – 2006-2009**

1. Leverage WK Kellogg Foundation dollars to obtain or direct at least \$450,000 in funds from the Core Partners (Leopold Center, PFI, ISU Colleges of Agriculture and Business, ISU Extension) to support the work of VCPSA.
2. Leverage W.K. Kellogg Foundation and Core Partner dollars to obtain at least \$600,000 from additional grant sources to support the work of VCPSA.
3. Establish a Memorandum of Understanding (MOU) between the Leopold Center, Practical Farmers of Iowa and Iowa State University; this MOU secures commitments and defines project governance among the three VCPSA core partners. Expand the MOU to include at least two additional partner organizations in the VCPSA core group by 2009.

Goal 2 - Objectives - 2006-2009 (continued)

4. Secure VCPSA general and administrative expenses of at least \$100,000 per year by 2009 from the VCPSA core partners, participating businesses, and VCPSA consultation fees.
5. Launch a self-sustaining Value Chain Institute to deepen knowledge of value chain theory and practice within VCPSA and among partners in Iowa and the U.S.
6. Evolve two VCPSA CoPs to become financially self-sustaining by 2009.

# **Appendix 1: Community of Practice (CoP) Knowledge Domain**

## **Criteria for selection, processes for success, and leadership checklist**

VCPSA's experience in initiating, managing, and evolving four unique communities of practice has allowed us to develop an extensive knowledge base about communities of practice. We express that knowledge below in three separate checklists for CoP development:

- Criteria for CoP selection
- Processes which enable CoP success
- Criteria for CoP leadership and management

## **Criteria for CoP selection**

### **Economic Benefits to Participating Farmers**

(Economic benefit is defined as an increase in profitable commerce and sustainability for participating farms)

1. How likely is it that participation will lead to an increase in profitable commerce? (Is there the potential to increase commerce?)
2. If, likely, will that increase in commerce primarily accrue to small and mid-size farms?
3. How many farms are expected to participate in this value chain?
4. Is there evidence that involvement in this CoP will help farmers to participate in this value chain?
5. Is there existing or the potential for farmer-based leadership and management in the production segment of the chain?
6. Is there potential for information-sharing between farmer-led businesses and other key partners in the chain?
7. Do participating farms derive a significant portion of their income from farming?

### **Economic and Social Benefits to Communities in Value Chain Area**

1. Will the CoP help increase self-sufficiency of communities to draw on their own resource base to support key farmer and partner businesses in the value chain? (This can be measured through more local products purchased and leveraging of internal assets)
2. Will the CoP provide positive economic and social benefits for the communities served by this value chain?
  - a. Positive economic impact
  - b. Increase in employment
  - c. Increase in tax base
  - d. Increase in the number of farmers
  - e. Increase in the number of businesses in the value chain
  - f. Increase in rural and small town population

- g. Improvement in the relative economic multiplier (do these agricultural businesses create more jobs and economic activity in the community than current conventional agricultural businesses or potential non-agricultural businesses?)
3. For food value chains, will it increase the availability of healthy and nutritious food for people in the community and in the state?

### **Benefits to Environment**

1. What are the expected environmental returns from production, processing, distribution and marketing in this CoP's value chain?
  - a. Number of acres and number of farms shifted to ecologically sound alternatives (indicates reduction in soil erosion and improvements in soil quality)
  - b. Number of acres shifted from monocrop or corn-soybean rotations to diverse, rotations
  - c. Characteristics of land shifted – HEL, ex-CRP, land that would have otherwise remained in sod, etc.
  - d. Number of acres and number of farms with improved and expanded wildlife habitat
  - e. Reduction in synthetic pesticide use
  - f. Reduction in chemical fertilizer use
  - g. Reduction in anti-biotic and/or hormone use in meat production
  - h. Processing plants have reduced environmental impact
  - i. Reduced fuel use in food transport (in the case of local and regional food enterprises)

### **Market Potential**

1. Are there current and future trends that would support further development and supply of products in this market?
2. How many farmers are available and interested in supplying the market?
3. Evidence to suggest that Iowa farmers can profitably produce a product for this market?
4. Are the barriers to entry (through differentiation and other mechanisms) such that huge agribusiness can't easily enter?

### **Needs and Support Assessment for CoPs**

1. Have other organizations already sufficiently supported farmer-led businesses in this value chain to the point where it does not need our assistance? If indeed there are organizations working with these businesses, can we add value based on our core competencies? What is that value?
2. Are the right conditions in place for a successful COP?
  - a. Has the identified need for the CoP “bubbled-up” from the farm and community level?
  - b. Have other potential business leaders and value chain partners expressed a need for a CoP?
  - c. Are the farmer-led businesses interested in the CoP willing to participate even though they are competitors in certain markets?

- d. Is there potential of businesses across the chain to discuss collaboration and information sharing information with farmers?
- e. Are there existing or potential leaders from farms and non-farm businesses who have expressed a desire to participate?
- f. Are there leaders and practitioners from agencies, NGOs, businesses, and universities who could participate and do their organizations view the value chain and the CoP approach as a priority?
- g. Are there foundations, grant-making agencies, and investors who could potentially support the work of the CoP as well as the businesses involved?
- h. Do organizations interested in leading the CoP have a culture of collaboration and cooperation? Do these organizations have a track record of successful collaboration?
- i. Is the CoP focus tight – are there clear goals to help farmer-led businesses and other partners in the chain succeed?

### **Processes which Enable CoP Success**

1. An initial, thorough needs assessment using a process such as the “fish bowl” technique that helped start the PNMWG
2. A recurring needs assessment to evaluate changes affecting the targeted businesses and course-correct the CoP’s activities
3. A recurring evaluation process to get feedback on the CoP’s performance
4. Shared purpose - an agreed upon mission statement to provide direction and a way to choose appropriate activities
5. Shared responsibility – participants do their part to help address needs
6. A leadership group (Steering Team) made up of a cross-section of members that serves to provide input into the direction the CoP is taking, and that has the authority to approve uses of CoP \$ to assure wise choices, reduce redundancy, etc.
7. Some minimum amount of discretionary funds that can be allocated to conduct projects that will help address needs
8. Accountability for performance on research and technical assistance projects
9. Shared ownership of the CoP by its members, which results from conducting activities in a way that makes members feel like they can influence the group
10. Membership that is open and can shift over time, but with a core group that provides continuity and direction
11. An appropriate balance of membership between businesses and assistance providers/agencies personnel such that these businesses can get most of their technical assistance needs met by members
12. Recurring (quarterly) face-to-face meetings to discuss progress on addressing key needs, identify other pressing issues that may have arisen, and facilitate member-to-member networking
13. A clear agenda set before every meeting, with adequate time for each agenda item and an opportunity for participants to suggest items for future meetings
14. Regular between-meeting communications via list serves, newsletters, websites, and phone conversations between the coordinator and members
15. Between-meeting work is done on a timely basis
16. Internal communication within partner groups to assure their contributions are effective

17. An environment of trust, openness, and shared information
18. The willingness and aptitude to address sensitive and controversial topics
19. Sensitivity and systems to maintain confidential business information
20. A capable, mature coordinator with excellent facilitation and listening skills
21. Adequate staff time (and funds for staff) for the CoP to be successful

## **Criteria for CoP leadership and management (Knowledge, Skills, Abilities)**

### **Roles**

1. Help people think in new ways about sharing information and resources
2. Help relate and tie together ideas, comments, questions, observations, and concerns raised in the discussion
3. Ensure participants are aware of decisions being reached
4. Engage participants (especially quiet people) to keep them involved and contributing
5. Maintain a balance between process and goals
6. Facilitate discussion to draw out relevant ideas, comments, questions, and concerns
7. Keep the discussion focused on the topic (there is a fine line between diversionary off-topic and helpful related-topic discussion)
8. Approach controversial issues head on and help bring all views, values, feelings and concerns to the surface to help find common ground
9. Synthesize ideas and concepts expressed in the group to provide focus and purpose
10. Convene meetings and be the contact for questions from other parties interested in the work of the CoP
11. Recruitment for diversity and ability to communicate vision, expectations, and ground rules - direction.

### **Personal qualities for CoP leaders**

1. Positive mental attitude
2. Strong commitment to the CoP's mission
3. Strong organizational skills and attention to detail
4. General expertise in the CoP topic area
5. Excellent facilitation skills
6. Strong listening skills
7. Strong interpersonal communication skills
8. Ability to help the group reflect on its discussions and information being shared
9. Ability to summarize ideas and concepts in a clear and concise manner
10. Ability to remain neutral until everyone has contributed ideas
11. Awareness of what is not being said, and the ability to bring it into the discussion
12. Big picture thinking

## **Appendix 2: Research Projects Funded by VCPSA Working Groups**

### **Pork Niche Market Working Group**

1. Business Plans and Feasibility Studies Team Plan of Work
2. Pork Niche Tour - Sweden and Denmark
3. Development of a Process-Verified System to Benefit Family-Sized Pork Producers
4. Developing a Meat Quality Assurance Program for Pork Niche Market Opportunities
5. Cost data collection and analysis of the producer's on-farm variable and fixed cost in the alternative pork food system
6. Supplemental request to help support SARE-funded project titled "Research Alliance for Farrowing, the Weak Link in Alternative Swine Systems".
7. New Product Development for Pork Niche Marketers
8. Evaluation and Review of the Research Alliance for Farrowing Project – part one
9. Evaluation and Review of the Research Alliance for Farrowing Project – part two
10. Document the design, construction and initial use and economic performance of a greenhouse for winter farrowing
11. Informational Meetings on Pork Niche Marketing Opportunities for New and Existing Pork Producers
12. Supplemental Heating Systems for Hoop or Deep-Bedded Systems
13. Analysis and implementation of delivery systems to increase efficiencies through utilization of existing supply chains
14. Development of Niche Pork Production Management Handbook
15. An Evaluation of the Importance to Consumers of Selected Niche Pork Attributes
16. The PNMWG Steering Team also allocated \$10,000 of VCPSA R&D funds to support record-keeping by farmers using alternative production systems
17. Developing and Disseminating Guidance Information on Niche Pork Herd Health Best Management Practices.
18. Supporting Niche Pork Production Research and Outreach Activities
19. Berkshire Production and Marketing Report

### **Regional Food Systems Working Group**

1. Examining Awareness of and Support of Sustainable Agriculture in Iowa
2. Local Farm and Food Economy Analysis for Northeast Iowa
3. Farmers Market Economic Impact Survey Analysis
4. Evaluating Economic Impacts of Local Food Purchasing in Several Market Channels in Black Hawk and Surrounding Counties
5. Investigation of Strategic Partnership Opportunities with Iowa Convenience Store Retailers Seeking Market Access of Iowa-Based Value-Added Food Products
6. Linking Five- And Seven-A-Day Fresh Produce Serving Equivalents for Iowa Consumers with Economic Benefits for Farmers
7. Marketing Research: Value-Added Dairy Production
8. Iowa (Hawkeye) Delicious Apples----Consumer Preference and Market Strategy for an Iowa Place-based Apple Variety

9. Buying and Eating (W)Right in North Central Iowa: The untold growing story of local food in Wright County
10. Characterizing Optimal Business Conditions for Commerce between Farmers and SYSCO - Phase II
11. Analysis and Comparison of the Technical and Business Planning Needs of Farmers Marketing Directly to Consumers and Farmers Marketing through Supply Chains
12. Forging a Strategic Plan for a Strong Local Farm and Food Economy in Northeast Iowa
13. Local Farm and Food Economy Analysis for Woodbury County, Iowa Region

### **BioEconomy Working Group**

1. Feasibility of Growing and Processing Kenaf as an Alternative Crop
2. Business Strategies for Kenaf Producers
3. Quality Testing System for Natural Fibers
4. Scenario for a 1 Million Ton Stover Collection and Delivery System along the Missouri River
5. Feasibility of Blending Switchgrass with Plastic Resins
6. Business Organization and Market Exploration for Iowa Flax Growers
7. Investigation of Flax as Dual Purpose Crop
8. Food Package Testing: Polylactic Acid (PLA) Bottling
9. Corn Production Strategies Helpful in Maximizing Profits and Fermentable Sugar
10. GIS Site Suitability Modeling to Identify Potential Corn Stover Collection Sites in Northern Iowa
11. Determining the Regional Economic Values of Bio-fuels Production in Iowa Considering Different Levels of Local Investment

## **Appendix 3: Partner Organizations**

Three core partners make up the management team of VCPSA: Leopold Center for Sustainable Agriculture; Iowa State University Extension; and Practical Farmers of Iowa.

### Cooperating Businesses include:

American Natural Soy  
Beeler's Naturally Pure Pork  
Creative Composites  
Creative Horizons of Iowa  
D&D Produce  
Eden Natural  
HNI Corporation  
Iowa Farmers  
Naturally Iowa  
Niman Ranch of Iowa  
Organic Valley  
Our Family Farms  
Prairieland BioProducts  
Spectrum Organics  
SYSCO Corporation  
VandeRose Farms  
Wholesome Harvest

### Cooperating Agencies/Organizations include:

Ag Law Center –Drake University  
Alces Foundation  
Center for Rural Affairs  
Crossroads Resource Center  
Iowa Department of Agriculture and Land Stewardship  
Iowa Department of Economic Development  
Iowa Energy Center  
Iowa Farm Bureau  
Iowa Food Policy Council  
Iowa Institute for Cooperatives  
Iowa Network for Community Agriculture  
Iowa Pork Industry Center  
Iowa Pork Producers Association  
Iowa Resource and Conservation Development Corporations  
Midwest Food Alliance  
National Pork Board

## Appendix 4: Leveraged Funds

Ag Connect (USDA RBEG)	6,900
Alces Foundation	15,000
Anonymous Foundation	10,000
Cargill Dow	50,000
IA Farmers Union (USDA RBEG)	23,000
Iowa Business Council/AMRCC	20,000
Iowa Dept Econ Development	20,000
Iowa Energy Center	104,000
Iowa Farmers Union (USDA)	3,000
Iowa Instit for Coops	5,000
Iowa Pork Producers Ass'n	12,000
ISU College of Agriculture	147,853
ISU College of Business	21,261
ISU Coop Dev Ctr (USDA)	5,000
ISU Hoop Group (USDA Grant)	30,000
Leopold Center	608,823
National Pork Board	19,000
NatureWorks	12,500
Practical Farmers of Iowa	23,543
Rudolph Steiner Foundation	10,000
SARE Grant	149,759
Spectrum Organics	5,000
SYSCO and SYSCO CEO	85,000
US Dept of Energy	12,500
US. Dept of Energy	50,000
USDA NRI Grant	400,000
USDA Value Added Grant	108,544
USDA Value Added Grant	50,000
<b>Total</b>	<b>2,007,683</b>

# Appendix 5: Organizational Chart

## Value Chain Partnerships for Sustainable Agriculture Organizational Elements

