

**Sustainable Food Sourcing and Distribution  
in the Vermont-Regional Food System**

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by

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## *Executive Summary*

Since World War II, agriculture in the United States has been characterized by industrialized models that emphasize the importance of financial return, often at the expense of social and environmental integrity (Lipschutz, 2004). This focus on monetary profitability has extended beyond agricultural production into the national food system in its entirety, including the distribution, sourcing, and disposal sectors.

Vermont is a state that for many reasons was not able to adopt industrialized agricultural production methods. Instead, Vermont farmers have for the most part been historically engaged in small to medium sized dairy operations, value added production and, in more recent years, diversified farming (Albers, 2000). It is sometimes assumed that small-scale farming and local food systems are more sustainable than industrial models. This is a difficult case to make because the meaning of sustainability is often obscure and vaguely defined. In order to understand the evolving nature of agriculture in Vermont, and therefore the food system as a whole, it is important to cultivate awareness of the values that guide decisions made by stakeholders throughout the food system. This understanding will provide a more concrete approach toward increasing sustainability, and add clarity to the definition of this elusive term.

The purpose of this study is to explore stakeholder values and propose indicators of those values in the interest of increasing sustainability in the Vermont-Regional food system. For the purpose of this study, the Vermont-regional food system is defined as Vermont and the surrounding areas where food-focused Vermont businesses and communities are engaged in collaboration with other businesses and communities. The study focuses primarily on food sourcing and distribution because of the limited amount of attention this sector has received. To accomplish this, this study addresses the following research questions:

1. What are the values that influence expert stakeholder decision-making regarding sustainability in the Vermont-regional food system?
2. What indicators show change in the food system related to these values?
3. What are other examples of food related indicator projects in the United States?

Exploration of values held by Vermont's expert stakeholders provides an important basis for the development of indicators of sustainability in Vermont. Expert stakeholders include agricultural producers, distributors, institutional purchasers, policy makers and others. For the purpose of this study, indicators are defined as simplified representations of highly complex interactions between the social, economic, and environmental components of communities (Maclaren, 2004). Indicators reflective of stakeholder values not only help to measure changes in the conditions of the food system, but also provide a language with which to communicate those values and changes. In order to be effective, indicators must meet rigorous criteria. Stakeholders can use the quantified data relayed by indicators for several purposes including internal sustainability benchmarking, as a tool for product, organization, or municipality differentiation, as a partnership-building tool, and a source of information. Policy makers can use the information relayed by indicators to justify legislation that favors sustainable practices. Researchers can use the set of indicators to evaluate what information is still needed to make sound decisions regarding food system sustainability (Pirog et al, 2006; Hagen & Whitman, 2006; Sustainable Seattle Indicators, 1998).

This study utilized qualitative methodology, including in-depth interviews, document analysis, and literature review to address the three research questions: In part I, individual in-depth interviews were conducted with 17 expert stakeholders during the summer of 2008. Subjects were selected in two ways. First, subjects were selected from the membership of the Vermont Fresh Network (VFN). This group was chosen as an appropriate membership to draw from for this study because of the discussions they hold regarding local food sourcing and distribution. Second, subjects were nominated based on their

familiarity with food sourcing and distribution issues. Interview questions were designed that specifically addressed these issues. Interviews were audio recorded. Data analysis included coding and recoding to identify major themes and the five most common stakeholder values. These values were: financial viability, promotion of the local food economy, environmental integrity, community wellbeing, and quality of service or product.

Part II developed a set of proposed indicators of sustainability in the Vermont food system. Document review was conducted to determine if data sources existed that addressed the proposed indicators. Each of the five most common stakeholder values were assigned three proposed indicators (condition, pressure, policy response) in order to describe critical dimensions of the food system. This resulted in a set of 15 proposed indicators.

When possible, indicators specific to sourcing and distribution were selected. However, information pertaining specifically to this segment of the food system was often sparse or lacking. When no information was available, indicators for sustainability in the overall food system were substituted to address a wider, but inclusive, scope.

Each proposed indicator was evaluated relative to a set of specific criteria. Criteria were developed from a review of several published indicator projects and research reports and include: relevance to the value, reflection of community values, accessibility, statistic measurability, scientific defensibility, reliable availability, leading nature, and policy relevance. Document review at the time of this report indicated that existing resources and data sources exist for each of the proposed indicators, but not all data within each indicator has been analyzed. Rather than providing an analysis of current indicator data, this study proposes an indicator set as a tool that could be refined and evaluated for its usefulness in promoting sustainability in the Vermont-regional food system. The proposed indicator set and existing data sources, including the frequency with which data are currently collected are described in Table 1.

Part III involved a further literature review of food system value/indicator projects conducted on national, regional, and state scales. The purpose of the review is to identify potential collaborators or resources in the further refinement of a viable set of indicators for Vermont local food production and distribution. The five examples presented in this review are intended to provide readers a sense of the diversity of projects that have been, and are currently, being conducted. These projects could inform future indicator project efforts in Vermont.

## ***Introduction***

Since World War II, agriculture in the United States has been characterized by industrialized models that emphasize the importance of financial return, often at the expense of social and environmental integrity (Lipschutz, 2004). This focus on monetary profitability has extended beyond agricultural production into the national food system in its entirety, including the distribution, sourcing, and disposal sectors.

Vermont is a state that for many reasons was not able to adopt industrialized agricultural production methods. Instead, Vermont farmers have for the most part been historically engaged in small to medium sized dairy operations, value added production and, in more recent years, diversified farming (Albers, 2000). It is sometimes assumed that small-scale farming and local food systems are more sustainable than industrial models. However, the meaning of sustainability is often obscure and vaguely defined. In order to understand the evolving nature of agriculture in Vermont, and therefore the food system as a whole, it is important to cultivate awareness of the values that guide decisions made by stakeholders throughout the food system. This understanding will provide a more concrete approach toward increasing sustainability, and add clarity to the definition of this elusive term.

It is crucial for those who wish to see the Vermont-regional food system flourish in uncertain times to understand how stakeholders make decisions that affect food systems, and how best to communicate why

those decisions are made. For the purpose of this study, the Vermont-regional food system is defined as Vermont and the surrounding areas where food-focused Vermont businesses and communities are engaged in collaboration with other businesses and communities. The purpose of this study is to explore stakeholder values and propose indicators of those values in the interest of increasing sustainability in the Vermont-Regional food system. To accomplish this, this study addresses the following research questions:

1. What are the values that influence expert stakeholder decision-making in the Vermont-regional food system?
2. What indicators show change in the food system related to these values?
3. What are other examples of food related indicator projects in the United States?

This study utilized qualitative methodology, including in-depth interview, document analysis, and literature review to address the research questions in three parts: (1) expert stakeholder value identification, (2) indicator identification, and (3) review of selected food system indicator projects. This report presents the methodology, findings, and discussion for each of this research questions in successive sections.

## ***Part I: Values***

### *Method*

In Part I, interviews were conducted with 17 expert stakeholders. Expert stakeholders were identified as those who have professional, in-depth understanding of food sourcing and distribution. Interviewees were selected from the Vermont Fresh Network (VFN) member database with additional interviewees included by nomination. VFN was chosen as an appropriate membership to draw from for this study because of the discussions this group has held regarding local food sourcing and distribution. Those interviewed included a selected sample of producers, distributors, processors, purchasers, chefs, employees of state agencies, and employees of non-profit organizations. The interviewees were stratified for gender, occupation, approximate age (as a proxy for job experience,) and proximity to urban areas (Kasemire, Jaeger, & Jäger, 2003). The interviews were in-depth, emergent, and held face-to-face. A semi-structured interview guide was used, allowing for follow-up and probing of responses. Interviews ranged between 1 and 1.5 hours in length, and were conducted in the summer of 2008. The interviews were audio recorded, transcribed, and analyzed through multiple coding and recoding strategies in late summer, early fall 2008. The result of the interviews is a list of five commonly held values related to decision-making around issues of food sourcing and distribution and food-systems as a whole.

### *Findings*

The result of the interview process is five common values accompanied by definitions crafted based on participant understandings of the terms. These are presented below with supportive, illustrative quotes drawn from the interviews. These quotes are interviewee responses to questions about their decision-making processes and their vision for the future of the Vermont food system. Also presented are values that were shared by some participants, and values that were cited infrequently by participants.

The most commonly held values by stakeholders in this study are:

1. *Financial viability* is the ability of a business to be profitable, make payments, and provide services to buyers. It is equally important that everyone be provided with just compensation for his or her labor.

- a. Interviewee # 1: “Everyone needs to be profitable...you can’t be talk about other forms of sustainability, I believe, unless you talk about, first and foremost, economic financial sustainability.”
  - b. Interviewee # 12: “When I think of sustainability I think about it as a thing where the farmer can make a living. And I don’t just mean squeak by. I mean they can really make a living and support him or herself and their families. And if we’re really lucky, other people’s families as well.”
2. *Promotion of the local food economy* is business and social transactions between local producers and service providers that result in overwhelmingly positive perceived impacts on Vermont’s economic, environmental, and social landscapes.
- a. Interviewee #11: “It’s smart to buy local for many reasons. Business sense—you are keeping business in the community. You are keeping your neighbors going. It’s fresher. It’s better. You know where it is coming from. There are whole messes of reasons to buy local.”
  - b. Interviewee #3: “My objective is to sell as close to home as possible.”
3. *Environmental integrity* refers to the maintained health of agricultural land, participation in conservation programs, increased efficiency of resource use and recycling, limiting sprawl, and increasing land health and productivity.
- a. Interviewee #2: “When you are relying on the land you want to be a good steward of the land because that is your resource.”
  - b. Interviewee #14: “I don’t want to see sprawl...I think Act 250 was a great thing. When other states have these giant real estate downturns, that doesn’t happen here because developers weren’t allowed to go hog wild...the state is unbelievably beautiful.”
4. *Community wellbeing* in a food system is one situated in a community context in a way that builds relationships, promotes honesty, openness, respect, communication, and promotes an ethic of giving back to the community. Access to sufficient quality and quantity of food for all Vermonters is associated with this value.
- a. Interviewee #7: “ One of our goals has always been that we have to give back to the community. We are part of the community and work as part of the community.”
  - b. Interviewee #6: “We know we need to raise our prices again, and it’s a hard thing to do because it’s going to make our stuff kind of unaffordable. There are so many people that live in urban and suburban areas that don’t really have access to local farm raised food.”
5. *Quality of service or product* refers to the reputation associated with Vermont products. The increased dollar return for these premium products is beneficial for many producers and service providers in the state, including those who operate on slim margins. Maintaining this reputation was associated with this value.
- a. Interviewee #1: “I am just trying to make a living producing a good product...I just like to have pride in a product and be part of a system.”
  - b. Interviewee #10: “It doesn’t matter if the ice cream is made locally if it doesn’t taste good!”

Other shared values included: quality of life, collaboration, the economic wellbeing of Vermont, the wellbeing of Vermont farmers, direct marketing, health, sustainability, affordability, accessibility to markets, efficiency, name recognition, economic justice, and food safety. Less common values cited by

at least one interviewee were: eating seasonally, education, independence, family, appropriate scale, trust, diversity, and work experience.

### *Discussion*

It is important to note that each participant holds multiple values. It is difficult to judge the degree to which a value influences decisions more than another, and it is most likely that no one value in isolation is responsible for decision-making. Still, this is valuable for gaining introductory insight into what stakeholders care about. This facilitates greater understanding of how expert stakeholders make choices, specifically those related to sustainability in sourcing and distribution and in the Vermont-regional food system as a whole.

## ***Part II: Indicators***

### *Method*

Part II developed a set of proposed indicators of sustainability in the Vermont food system, and used document review to determine the existence of data sources for the proposed indicators. Indicators were selected in two ways: (1) guided by definitions of values provided by interviewees, and (2) drawing from a review of the indicator related literature related to similar projects with similar published values. The proposed indicator set and existing data sources, including the frequency with which data are currently collected are described in Table 1.

For the purpose of this study, indicators are defined as simplified representations of highly complex interactions between the social, economic, and environmental components of communities (Maclaren, 2004). Each of the five commonly held values discussed in the previous section was assigned one of the following types of indicators based on the work of Hagen and Whitman (2006):

1. *Condition indicators*: Those that describe the current state of a system. (Example: Annual direct sales of locally produced agricultural goods in Vermont.)
2. *Pressure indicators*: Those that describe factors driving the system. (Example: The number of farm-to-school programs active in Vermont.)
3. *Policy response indicators*: The presence or absence of legislative support to change something in the food system. (Example: H.522, which demonstrates legislative commitment to support sustainable agriculture in Vermont.)

This processes totaled 15 proposed indicators that were then evaluated based on adapted criteria for successful indicators published in peer-reviewed literature and organizational reports. (Sustainable Seattle, 1998; Hagen and Whitman, 2006; Meter, 1999). The criteria by which these indicators were evaluated are:

1. Is the indicator relevant? Does it give us information about the Vermont-regional food system specifically?
2. Does the indicator reflect community values?
3. Is the information communicated in this indicator accessible to decision makers in the Vermont-regional food system?
4. Is the indicator statistically measurable?
5. Is the collection of the indicator data scientifically defensible?

6. Is the information for this indicator reliably available? (This type of project is not designed for the gathering of new data, but rather the synthesizing of existing information over many years.)
7. Is the indicator leading? Does it help us analyze and understand the past and current food system? Does it give us clues about the future?
8. Is the indicator policy relevant? Would it support legislative efforts to move the Vermont-regional food system towards sustainability?

*Findings*

See Table 1.

Table 1: Sustainability Indicators for Sourcing and Distribution in the Vermont-regional Food System 2008

Value	Indicator Type	Indicator	Source of Information	Collection Frequency
Financial Viability	Condition	Difference between livable wage and net income of VT farmers.	Legislative Joint Fiscal Office (JFO) <a href="http://www.leg.state.vt.us/jfo/Reports/2007%20Basic%20Needs%20Budgets.pdf">http://www.leg.state.vt.us/jfo/Reports/2007%20Basic%20Needs%20Budgets.pdf</a> , USDA Agricultural Census <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>	JFO is collected every year (?). Census data is collected every 5 years.
	Pressure	Age distribution of VT farmers.	USDA Agricultural Census <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>	Every 5 years
	Policy response	H.522 – legislative intent to support sustainable agriculture	Vermont Legislative Reports and Publications <a href="http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2008/bills/intro/H-522.HTM">http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2008/bills/intro/H-522.HTM</a>	n/a
Local Food Economy	Condition	Direct marketing sales in Vermont.	USDA Agricultural Census <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a>	Every 5 years
	Pressure	Number of farm to school programs in Vermont.	National School to Farm <a href="http://www.farmentoschool.org/VT/programs.htm">http://www.farmentoschool.org/VT/programs.htm</a>	Continually
	Policy response	Legislative definition of “local.”	Legislative Act S.322 <a href="http://www.leg.state.vt.us/DOCS/2008/BILLS/HOUSE/S-322.DOC">http://www.leg.state.vt.us/DOCS/2008/BILLS/HOUSE/S-322.DOC</a>	n/a
Environmental Integrity	Condition	Acres of farm, forest and conserved land.	USDA Agricultural Census <a href="http://www.agcensus.usda.gov/">http://www.agcensus.usda.gov/</a> UVM Center for Rural Studies <a href="http://crs.uvm.edu/">http://crs.uvm.edu/</a>	Every 5 years
	Pressure	Act 250 permits granted per year/ Act 250 permits sought per year	Missing data	n/a
	Policy response	Act 250	State of Vermont Legislature, Vermont Statutes Online <a href="http://www.leg.state.vt.us/statutes">http://www.leg.state.vt.us/statutes</a>	n/a



Table 1 continued: Sustainability Indicators for Sourcing and Distribution in the Vermont-regional Food System 2008

<b>Value</b>	<b>Indicator Type</b>	<b>Indicator</b>	<b>Source of Information</b>	<b>Collection Frequency</b>
Community Wellbeing	Condition	Percentage of Vermonters who are food secure/food insecure	The UVM Center for Rural Studies (CRS), <a href="http://crs.uvm.edu/">http://crs.uvm.edu/</a> Campaign to End Child Hood Hunger reports Food and Action Research Center (FARC) Data <a href="http://www.frac.org/html/publications/pubs.htm">http://www.frac.org/html/publications/pubs.htm</a> Feeding America (FA) <a href="http://www.feedingamerica.org/">http://www.feedingamerica.org/</a> USDA Economic Research Service <a href="http://www.ers.usda.gov/publications/err49/">http://www.ers.usda.gov/publications/err49/</a>	CRS (only in 2007), FARC (yearly since 2004), FA (2001, 2006, 2007), USDA-ERS (1998-2007)
	Pressure	Number of programs working towards food assistance	Vermont Agency of Agriculture, Farm and Markets <a href="http://www.vermontagriculture.com/buylocal/links/assistance.html">http://www.vermontagriculture.com/buylocal/links/assistance.html</a>	Collected continuously. Historical yearly numbers not compiled.
	Policy response	H.91 – The Rozo Mclaughlin Farm-To-School Program: Local food grant program	Vermont Legislative Reports and Publications <a href="http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=06&amp;Chapter=211&amp;Section=04721">http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=06&amp;Chapter=211&amp;Section=04721</a>	n/a
Quality of Service/Product	Condition	Participants in the Vermont Seal of Quality Program	Vermont Agency of Agriculture, Farm, and Markets <a href="http://www.vermontagriculture.com/buylocal/marketing/soq.html">http://www.vermontagriculture.com/buylocal/marketing/soq.html</a>	Collected continuously since 1975
	Pressure	Number of technical assistance and trade association in Vermont	Vermont Agency of Agriculture, Farm and Markets <a href="http://www.vermontagriculture.com/buylocal/links/technical.html">http://www.vermontagriculture.com/buylocal/links/technical.html</a>	Collected continuously. Historical yearly numbers not compiled
	Policy response	Vermont Origins Rule, Consumer Protection Act.	Office of the Attorney General of Vermont <a href="http://www.atg.state.vt.us/display.php?smod=95">http://www.atg.state.vt.us/display.php?smod=95</a>	n/a

### *Discussion*

Document review at the time of this report indicated that existing resources and data sources exist for each of the proposed indicators, but not all data within each indicator has been analyzed. Rather than providing an analysis of current indicator data, this study proposes an indicator set as a tool that could be refined and evaluated for its usefulness in promoting sustainability in the Vermont-regional food system. The utility of this tool is dependant upon several factors that are discussed in the recommendation section of this report.

When possible, indicators specific to sourcing and distribution were selected. However, information pertaining specifically to this segment of the food system was often sparse or lacking. When no information was available, indicators for sustainability in the overall food system were substituted to address a wider, but inclusive, scope. This does not exclude their usefulness in increasing sustainability in Vermont-regional food system, including in the sourcing and distribution sector.

## ***Part III: Literature Review of Indicator Projects***

### *Method*

In the final phase of this study, a literature review was conducted that identified five past and current food system related indicator projects. There have been many inspiring indicator projects in the United States since the 1970s. This list is by no means a complete inventory of indicator projects, but is provided to illustrate the diversity of scale of indicator projects with a food-system related focus. The selected projects show the varying scope of indicator projects. I begin with those that attempt to address the national food system. Next I present those that address regional or state food systems. I conclude with projects that focus specifically on the Vermont-regional food system.

### *Findings*

#### 1. “Building a Case for Sustainable Food Systems”

This is a national level project that is currently being developed. In the coming year, representatives from academic institutions including the University of Michigan and University of California, Davis will compile indicators with the support of business and community organizers, as well as representatives from the Wallace Center (a non profit organization.) The project is facilitated by the Wallace Center, and has funding from the Gates Foundation and the W.K. Kellogg Foundation.

Some of the values published by the project include: equal access to good food, humane and just practices (including humane treatment of animals, civil rights, and support for maintaining biodiversity.)

More information is available at <http://wallacecenter.org/our-work/current-initiatives/sustainable-food-indicators>

#### 2. “Vivid Picture”

This project was conducted in California in 2005. It resulted in 63 indicators based on 22 goals. Groups that compiled the indicators were made of stakeholders in the food system including producers, academics, policy makers, nonprofit organizations, funding groups, and activists. The project was funded by the Arkay Foundation, the Columbia Foundation, the Gaia Foundation, the Fred Gellert Family Foundation, the Richard and Rhoda Goldman Foundation, the Clarence E. Heller Charitable Foundation, the W.K. Kellogg Foundation, the Marisa Foundation, the William Zimmerman Foundation

Some of the values published by the project include: access to quality food for all people in California, personal health and wellbeing, and community building through food and nutrition, natural resources used well and fairly so that their usefulness can be maintained in perpetuity, enhancement of regional and cultural identities, and economic vitality for regional producers, manufacturers, distributors and purveyors (Feenstra, 2005).

More information is available at <http://www.vividpicture.net>

### 3. “Planting Prosperity and Harvesting Health: Trade-offs and sustainability in the Oregon-Washington”

This project was completed in 2008 and was designed to focus on the Oregon-Washington regional food system. Indicators were compiled by identified stakeholders, including businesses, non-profits, and related state agencies. To gather the information, 60 interviews were conducted and two group meetings for indicator selection were held. Stakeholders were also given opportunity to review the list of indicators before publication. The final product of this project was a list of 44 indicators. The project was funded by Oregon State University, Portland State University, and Kaiser Permanente.

Several of the values published by the project include: resource stewardship, economic prosperity and diversity, food access, food choices that support personal and community health, regional market expansion and infrastructure support, agriculture land-base management, opportunity and justice for all food workers, system resiliency, and food choices that restore cross system respect (Martin et al., 2008).

More information is available at <http://www.pdx.edu/ims/foodsystems.html>

### 4. “A Plan for a Decade of Progress”

The Vermont Economic Progress Council conducted this project in Vermont in 2002. It was designed to facilitate collaboration between government and the private sector to achieve economic development in Vermont. Though the project was not exclusively concerned with food system, it did include a section devoted to agriculture. The process drew primarily on expert knowledge with some community input. The final results included 83 indicators in 17 categories, which included categories such as “people, families, & communities”, “environment”, and “land use inventory”.

More information is available at [http://www.publicassets.org/VEPC\\_report2002long-rangeplan.pdf](http://www.publicassets.org/VEPC_report2002long-rangeplan.pdf)

### 5. “Council on the Future of Vermont (CFV)”

This project is currently in progress, and warrants special attention due to overlap with this research. The stated goal of the CFV project is to identify “a unifying vision of Vermont” based on community and expert stakeholder input. The principle organization facilitating this study is the Vermont Council on Rural Development (VCRD). The CFV study is being conducted in several stages. At this point VCRD has completed community focus groups in every county in the state. They have also interviewed community groups including fire departments, civic groups, and others. They are currently concluding a series of focus groups with selected expert stakeholders.

The CFV study has collaborated with other organizations around the state during the research stage of this project. For example, researchers at the University of Vermont’s Center for Rural Studies are collaborating on the study by conducting a telephone survey to reveal values commonly held by a statistically valid sample of Vermonters. Saint Michael’s College is also contributing to the project and

will produce an analysis of current conditions and trends (indicators) in the state. This indicator set will include a section focusing on agriculture, which will be published in the final CFV report in 2009.

More information about the CFV project is available at <http://www.futureofvermont.org/>

### *Discussion*

This part of the research highlighted a selection of indicator projects based on their focus on food systems and the geographic regions they address. Special attention should be paid to the currently in progress work of the Council on the Future of Vermont for its similarity to this research. When the CFV results are published, it will be interesting to compare them to the results of this research.

### ***Recommendations***

Vermont is a rural state that demonstrates increasing dedication to enhancing the sustainability of the local food system. In order to do this more effectively it is necessary to understand how expert stakeholders in the food system make decisions, and how best to communicate the values behind those decisions. Indicators are representations of values that can serve this purpose. Defensible, value reflective indicators must be identified to show areas of the food system that demonstrate the most opportunity for enhancing sustainability. It is therefore important to further this study in two ways:

1. Compile data for the selected indicators that goes back at least 10 years.
2. Successful indicator sets are collected over a period of time. If this project is to reach its full utility, many years of data must be collected in order to fully understand trends in the Vermont-regional food system. It is best to revisit these indicators every 2-5 years in order to:
  - a. Ensure that they still correspond to expert stakeholder values.
  - b. Collect up to date data that will demonstrate trends in the food system over time.

If the necessary information is not available, then communities, research institutions, and policy makers must address the data gap. In this regard, it will be possible to document and tell the story of sustainability in the Vermont-regional food system.

While this study was framed to address food sourcing and distribution in Vermont, stakeholder values related to this topic were not segregated from values associated with the food system as a whole. In addition, associated indicators that specifically addressed sourcing and distribution were not available. It would be beneficial for future studies to solicit specific sets of information from the food distribution sector in Vermont.

Further refinement and acceptance of the proposed indicator set by expert stakeholders themselves, along with supporting data collection and analysis strategies, will tell a story of sustainability in the Vermont-regional food system over time, and identify areas where more work needs to be done.

### ***Conclusion***

The purpose of this study is to support sustainability in the Vermont-regional food system. There are three ways in which this can be accomplished. First is the articulation of values that drive decision-making by expert stakeholders in the Vermont-regional food system. For the purpose of this study, the Vermont-regional food system is defined as Vermont and the surrounding areas where food-focused Vermont businesses and communities are engaged in collaboration with other businesses and

communities. The second application of this research is the creation of an indicator set associated with these values. Stakeholders can use the quantified data relayed by indicators for several purposes including internal sustainability benchmarking, as a tool for product, organization, or municipality differentiation, as a partnership-building tool, and a source of information. Policy makers can use the information relayed by indicators to justify legislation that favors sustainable practices. Researchers can use the set of indicators to evaluate what information is still needed to make sound decisions regarding food system sustainability. If the necessary information is not available, then communities, research institutions, and policy makers must address the data gap. The third application of this study is the learning and potential for collaboration presented through the review of prior food system related indicator projects on national, regional, and state levels. Specifically, the CFV project presents opportunities within Vermont for collaboration and deepening of understanding of sustainability in the Vermont-regional food system.

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