A PATH FORWARD FOR NORTHERN NEW MEXICO'S AGRICULTURAL ECONOMIC CLUSTER





FULL REPORT

STUDY BY SOCIAL ENTERPRISE ASSOCIATES
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EXECUTIVE SUMMARY

n 2008, seven local governments¹ in Northern New Mexico united in a regional economic development planning effort called the Northern New Mexico Regional Economic Development Initiative (REDI). REDI focuses on the counties of Los Alamos, Mora, Rio Arriba, Santa Fe, and Taos. Bernalillo County is considered mostly as an end market and resource base. The REDI Plan, completed in 2009, was funded by Los Alamos County through a model initiative called Progress through Partnering. It directed a portion of gross receipts taxes from Los Alamos National Laboratory, the largest employer, to regional efforts. Regional Development Corporation (RDC) was contracted to manage this effort, to develop the REDI Plan, and implement REDI initiatives.

The goals of REDI aim to address chronic economic development challenges in the region by focusing on: diversifying the economy, developing a high quality workforce, increasing the number of higher paying jobs, retaining and attracting youth and young families, and making rural communities vibrant. The REDI Plan set out to achieve these goals by developing and strengthening four target industry clusters that stakeholders in the planning process determined to have the greatest potential and opportunity for northern NM. Those are: High Value/ Value Added Agriculture, Renewable/Clean Energy, New Media, and Technology.

In 2009, RDC received a USDA grant, the RBOG (Rural Business Opportunity Grant), to study and provide recommendations regarding High Value/Value Added Agriculture. Agriculture is rapidly becoming a priority sector for a cluster approach. Food and agriculture historically, currently and in the future are sustainable economic drivers. Stakeholders apply a wider definition in considering the development of local agriculture – beyond just the financial bottom line of income and economic jobs generating taxes. It contributes to other bottom lines: the health of the environment through stewardship of the land and water; community well being; increased regional food security; and the continuation / maintenance of very old cultural traditions. While agricultural activity statewide is vital and study findings are meant to benefit the entire region, the counties detailed above are the geographical focus.

This document explores the current state of Northern N.M.'s high value agriculture based on recently published studies, consideration of national trends, review of models from other regions, and extensive community interviews. Rather than "reinvent the wheel," this study focused on leveraging existing research and expert opinions to advance potential solutions. The purpose of this study is to recommend how REDI / RDC can contribute in a meaningful way of interest to existing stakeholders towards development of this cluster, thereby, achieving the outcome of providing economic opportunity and increasing food security locally.

There is extensive good work already being done with extensive information readily available. No fewer than six major studies have been published within the last two years. This engagement was conducted from August to November, 2010, a busy harvest period for sector stakeholders. Requests

¹ City of Espanola, Rio Arriba County, Town of Taos, Taos County, Los Alamos County, City of Santa Fe and Santa Fe County.

THE PROBLEM

Basic human need data in Northern NM reveals significant shortfalls:

- New Mexico is ranked 12th in food insecurity in the nation; currently importing ~ 95% of its food. Northern NM is even less food secure than the rest of the state, with poverty, a short growing season, water concerns and soil conditions increasing the challenges
- Poverty in each of the four counties is above national averages
- Nutrition and health statistics for people in the region lag behind state averages

Local farming faces many challenges, including:

- Most farms are smaller than 50 acres; local beef ranchers, the largest agricultural product by gross revenues, typically have 30 head or less
- Sales are low: most farms generate less than \$10,000 in annual sales.
 The majority of local farmers operate in the red.
- Many landowners are land rich, but cash poor
- The region is characterized by weak support systems, minimal infrastructure (corresponding to high transportation costs), and small markets
- The average age of local farmers is 59 years old, there are few younger farmers entering this cluster

for information were made being sensitive to people's time. Many had recently participated in previous local studies, including Governor Richardson's Sustainable Agricultural Development Working Group and Dreaming New Mexico's Food System Summit. Researchers circulated a public input document and attended existing forums – like Farm to Table's Finance Roundtable, Hunger Prevention Listening Sessions, and County Food and Agriculture Policy Council meetings, among others, where cluster concerns are being addressed.

UNDERSTANDING THE LOCAL ENVIRONMENT

New Mexico has a rich cultural and economic tradition in agriculture going back literally thousands of years. Two key assets of the local food system are its long history and a core group of committed people, old timers and new folks. Efforts around agriculture demonstrate resilience and independence built upon collective perseverance of Pueblo culture, land grant structure, and acequia associations, which continue today.

Those advancing local food security are part of a larger national and even international movement to produce, provide access, secure and consume healthy and nutritious food while honoring local traditions, customs, and culture. Review of national trends document a growing movement. Qualities for successful projects / programs include: a strong local support organization as the lead, alignment of interests, coordination among stakeholders, and consistent communication to build community awareness then support. USDA, for example, is evaluating hundreds of food and agricultural projects nation-wide, with NM experts involved.

Despite tough economic times, there are positive trends in Northern NM agriculture and many opportunities to increase local food security. Furthermore, emerging efforts 'fit' our community. As Robin Seydel from La Montanita Co-op stated, "There are promising new trends and opportunities for providing food responsibly, locally and without loss of quality. We are re-creating the older (agricultural and economic) system and creating a new system at the same time." REDI can make a positive contribution in development of this cluster.

TOPIC RECOMMENDATION AREAS

The first step was documenting national trends and best practices. After consolidating learning from recent local publications, consultants surveyed agricultural sector stakeholders. From nearly two dozen informal interviews, a set of prioritized topic areas for focus was developed, along with potential action items.

- Infrastructure Development
- Policy Development & Advocacy
- Capital Resource Development
- Specific Value Chain Enhancement
- Regional Leadership & Coordination

A public input document was drafted and circulated. It was directly sent to a sampling of 40 people and organizations with requests to pass the document to others. Any interested stakeholders were welcome to comment. More than three dozen comments were logged. Feedback, in the form of direct edits, conversations based on the document, and emails, was aggregated. The priority areas were scored for comparison.

PRIMARY RECOMMENDATIONS

The top two areas identified for RDC engagement emerged as:

- Policy Development & Advocacy contribute to efforts already underway with an eye on how legislation impacts local agriculture and facilitate improved government implementation of existing programs
- Capital Resource Development contribute to existing initiatives accessing resources others are not pursuing, such as government grants, educating philanthropic funders, seeking investment and coordinating regional efforts

These two recommendations are critical for this unique cluster's next phase of development. Community input provided clear parameters for any type of REDI engagement:

- Work in partnership with existing active stakeholders; include representatives from all backgrounds
- Build upon, and contribute to, existing efforts, rather than starting new initiatives
- Attend and participate in local activities
- Bring resources to the table; do not compete with others' efforts to attract resources
- Be clear and transparent in all dealings

POLICY DEVELOPMENT & ADVOCACY

TARGET:

Support policies that benefit Northern NM's farmers. Increase the number of organizations and people who will bring their voices

GOALS & STRATEGIES

The report goals and strategies, when taken together, meet the REDI outcome of providing economic opportunity and increasing food security in Northern New Mexico. They are:

- Raise awareness, the profile of local food efforts and cluster creation to existing and new stakeholders.
 - **STRATEGY:** participate in policy initiatives; liaise with government agencies on agricultural topics.
- Bring new capital into the food system in the forms of philanthropic contributions, governmental grants and allocations, and private investments.
 - **STRATEGY:** focus upon collaborative funding, stakeholder education, and collective engagements.
- Once these two goals above are met, a third is enabled: RDC to implement specific strategic projects contributing holistically to the local food system.

STRATEGY: on-going contribution to support leadership efforts, continued participation in the community, and sustained involvement in the issues.

and resources to bear on local, state and federal government policies and implementation for the regional food system.

OPPORTUNITY:

Numerous laws are supportive of local agriculture, including land easements and subsidies. Most are not aimed at, or are easy to access for small farms. For example, progress was seen in the amendment to the current Farm Bill where small farmers selling directly to consumers within state lines or a 275 mile radius are exempt from some regulations outlined in the Food Safety Bill. As agriculture is of value to the entire state, non-partisan advocacy can build a coalition of business and support entities. Increasing local procurement is one example where everyone in the community wins.

POTENTIAL NEXT STEPS:

- Coordinate with food and agriculture policy councils in each county & related entities state/ nation-wide. Work through these entities to support businesses and stakeholders towards a coherent agenda with specific initiatives.
- Advocate for legislation that drives demand: procurement, school food budgets, meat inspection, agro-tourism, etc.
- Liaise with government organizations advancing agriculture, including Dept. of Agriculture, NM Environment Department, Ecotourism, USDA, and Economic Development Department.
- Act upon initiatives with coordinated efforts: letter writing and other mass campaigns
- Contribute to better implementation of existing efforts: such as increasing fluidity of
 conservation easements, and selection process for local procurement. Take a stand on
 matters that will have significant economic and employment impact in agriculture:
 i.e. Livestock Board for beef inspection returned to a state level function.

CAPITAL RESOURCE DEVELOPMENT

TARGET:

Establish a Funding Convener – a regional facilitator between providers of capital and those seeking it. Organize collective efforts with a menu of prioritized projects with specific price tags to jointly fund-raise. Go after capital that others are not seeking.

OPPORTUNITY:

There is not enough money available to support issues around access to food, such as school lunches, and protecting land / water. Money that exists is under-allocated. Many farms and small scale agribusinesses have credit shortfalls. In the typical competitive funding environment: some win while others lose, or everyone gets a little - but not enough. Federal funders, like USDA, 'send back' millions of dollars from NM. Grant funders, with fewer dollars these days, prefer targeted asks, such as collaborative applications and larger solutions. Private investment lags demand due to lack of understanding to accurately measure risk, mismatched expectations for traditional investment returns. New players, like 'Slow Money' and socially responsible investment, are growing and desire local deals.

Collaboration is fundamental in building this cluster, yet extremely challenging in its implementation. The Funding Convener would seek capital from a generated menu of prioritized projects with specific price tags. As funds are received through the philanthropic community, investors – banks, local money advocates, and other investment, business involvement, and government funding agencies, the Funding Convener would work with a team of organizations to either serve as a grant writer or a facilitator of collaborative agreements.

POTENTIAL NEXT STEPS:

- Select a host organization. It should have the respect of others operating locally, internal
 infrastructure to support the position, work region-wide, and leverage its resources.
 Organizations already engaged in this work include the Center for Philanthropic
 Partnerships, Farm to Table, La Montanita Co-op and others. A collaboration example is
 the SW Cooperative Development Center with Rocky Mt. Farmer's Union, La Montanita,
 and Farm to Tablewho together support cooperatives and local farming efforts.
- Identify prioritized funding needs for the region and each county. Establish a "menu" of
 projects for collective fund raising and match menu items with appropriate organizations
 / bodies. 'Shop deals'in an organized fashion to funders and investors without
 competing with existing efforts. Grow the overall pie. Be clear about what REDI/RDC gets
 and what others get from each opportunity sought.
 - * Match appropriate parties with specific opportunities (e.g., specific USDA funding).
 - * Work with USDA Rural Development to support projects not quite ready (previously turned down for grants). Contribute to feasibility studies and other ground work to get them 'shovel-ready'. For example: help the Espanola and Taos Coops to happen.
 - * Organize a new AmeriCorps*VISTA application. Placements are increasing. Allocations have been made for fiscal year 2011. A coalition could submit for FY2012. Connect with current VISTA recipient agencies. Identify agricultural related organizations interested in hosting a VISTA & detail work plans. Secure matching funds (up to \$10,000 per placement).
- Convene funding stakeholders in formal and informal meetings; educate them on local
 opportunities. Organize learning summits for different populations: philanthropic
 community, investors banks, slow money advocates, and other investment, business
 involvement, and government funding agencies.

Action on these two recommendations can begin right away. Further engagement in the community leads to implementation of specific projects that will strengthen the overall food system, grow value-added agri-businesses, provide access to fresh food, and build capacity for more local stakeholders. In Northern NM, this cluster is about sustainability, the triple bottom line (people, planet and profit), self-determination, and integrity. Developing local agricultural provides economic value, health improvements and local security. Hopefully, this report will lead to a concerted effort by the governments and tribal entities involved in REDI to foster a better tomorrow for the people of Northern NM working in agriculture, the land they manage, and those of us who eat their food.

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1. INTRODUCTION

The Regional Economic Development Initiative (REDI) is contributing to Northern New Mexico's economic well being through its cluster work in: 1) Renewable & Green Energy, 2) Technology, 3) Media, and now, 4) High Value/Value Added Agriculture. REDI's primary goal is to enhance a diversified economy by developing "clusters". Clusters bring together stakeholders for collective action to strengthen the private sector orienting economic development toward productive market applications.

This report studies local agriculture for cluster development. The goal is to hone in on the greatest areas for potential impact in Northern New Mexico, and the best options for REDI's contribution. REDI's potential role builds upon the USDA grant secured to conduct market research and develop this report. REDI/RDC brings:

- Experience as a convener and networker for economic betterment in Northern NM
- Seed financial support for project recommendations to fund collective action
- Commit experienced staff time to act upon next steps
- Lend REDI/RDC reputation and networks to advance selected initiatives

This report explores the current state of Northern NM high value agriculture. It includes:

- Review of history of REDI and the cluster initiatives (Appendix 1)
- Summaries of recent studies in local agriculture
- Overview of demographic and agricultural data, including county profiles (Appendices 2, 3 & 4)
- Consideration of national trends and best practice models from other regions (Appendices 5 & 6)
- Identification of local food issues and preliminary specific recommendations
- Suggestions of prioritized areas for potential REDI support
- Potential specific next steps for RDC action
- A growing body of research shows benefits generated, in addition to economic value, from improved local agriculture



REPORT OBJECTIVES

- Document the Northern NM food system
- Detail local food efforts and enhance this cluster to existing and new stakeholders
- Bring new capital into the food system in the form of philanthropic contributions, governmental grants and allocations, and private investments
- Identify 1-3 strategic projects within the local food system over the next couple years
- Model successful collaboration
- Foster stronger links between local food system stakeholders, government, philanthropic and investors

and readily available nutritious local food. Some benefits include: reduced rates of obesity and related diseases leading to lower community healthcare costs. For students, higher nutrition leads to improved school test scores. Reduction in environmental damage through better local farming can be quantified in economic dollars and eco-services, as well. These impacts, although more difficult to quantify than economic activities, increase the value of local agricultural efforts.

This report is presented as a first step towards collective action, not a static paper. Many players are highly active in this regional effort already, with new information and activity being shared every day. The team developing this report sought to leverage existing efforts and advance the solution set for Northern NM's high value agriculture. The focus was to channel efforts building upon the extensive work already underway in New Mexico by thousands of people with long histories and daily work in agriculture, rather than establish new structures. Key data sources come from recently published secondary report – existing studies and news articles. Dozens of primary interviews were conducted with stakeholders and industry experts. Together, they provide a path forward for REDI and this cluster.

2. TRENDS IN NORTHERN NEW MEXICO AGRICULTURE

A special lens needs to be applied when considering a cluster approach to agriculture in this region. It must be mindful: colonialism, different long-standing cultural heritages, existing traditional agricultural practices, and respect for wisdom from elders. While an argument may be made that food is readily available so no need to nurture a local system, those who live here and involved in agriculture cite food insecurity.

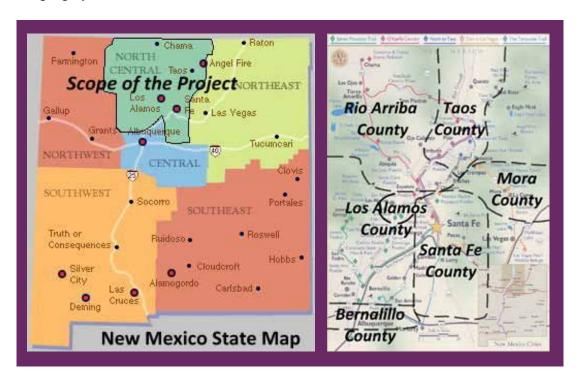
Terminology like "cluster", focus on market production, and concepts such as value chain development are not part of the vocabulary of most local agriculture stakeholders. This language is also outside most local players' historical experiences. Sustainable living, managing the land / water, and preserving ancient seed stock are more regular conversation topics. A bridge must be built towards an understanding of a "cluster."

Data shows New Mexico is in a new chapter developing high value agriculture towards an economic cluster. This is driven by increased sensitivity national and locally to "we are what we eat", "local food is healthier", and "never under-estimate the economic power of agriculture". Specifically for New Mexico, "ancient agriculture" is a significant part of the regional cultural narrative.² Agricultural activities are established, but challenges include:

- Many stakeholders are spread throughout the region with different foci and speak different vernacular
- Lack of interest and/or trust in collaboration, with mixed previous results
- Divisions separate business, social and environmental domains for economic development

New Mexico has a rich cultural and economic history in agriculture going back literally thousands of years. This report focuses on the counties in Northern New Mexico: Santa Fe, Rio Arriba, Taos, Mora and Los Alamos. Bernalillo is included because of its location and numbers of people. Its farming conditions are deemed sufficiently different and outside of the immediate REDI region. While agricultural activity throughout the state is vital and study findings are meant to benefit the entire region, these counties are the geographical focus.

² Woods, Michael, and Mary B. Woods. Ancient Agriculture: From Foraging to Farming. N.p.: Runestone Press, 2000. Print



KEY BASELINE DATA ON LOCAL AGRICULTURE REVEALS:

- High food insecurity; importing ~
 95% of food; Northern NM is less food secure than the rest of state
- Most Northern NM farms are smaller than 50 acres & generate less than \$10,000 in annual sales
- The majority of local small farmers operate in the red
- Local ranchers of cattle, the highest earning agricultural product, typically have fewer than 30 head, which is lower than ranchers in other parts of the state

The region shares many common characteristics and history. The counties diverge across socio-economic factors and agricultural conditions. Except for Los Alamos, all counties have higher than average poverty (>10% of the population). Rural population is high: 100% in Mora, more than half in Taos and Rio Arriba, and a quarter of Santa Fe. Again, Bernalillo County does have farms but is considered urban and included as an end market.

The counties have a range of agricultural characteristics in number of farms per county, market value of products sold, median farm size and commodities sold. Single solutions are not practical for the entire population. Areas for focus and selected 'interventions' will be for a range of populations and needs.

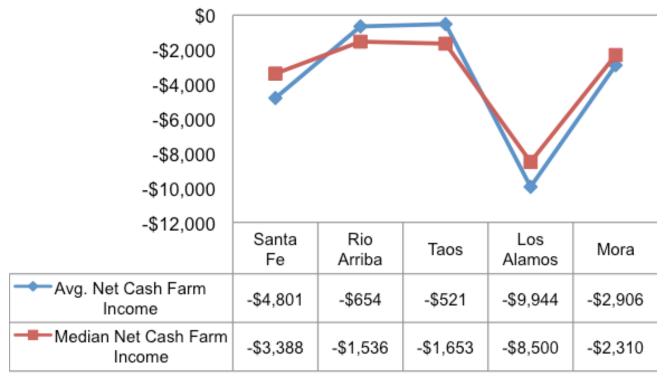
AGRICULTURAL OVERVIEW BY COUNTY³

County	# of farms	Average Income per Farm	Median farm size (acres)		Top commodity groups (by quantity)
				1.	Nursery, greenhouse, & floriculture
Santa Fe	489	\$25,796	17	2.	Cattle & calves
				3.	Other animal & associated products
				4.	Cattle & calves
Rio Arriba	1,312	\$9,728	30	5.	Other crops & hay
				6.	Fruits, tree nuts, & berries
				7.	Cattle & calves
Taos	637	\$9,407	27	8.	Other crops & hay
				9.	Nursery, greenhouse, & floriculture
Los Alamos	7		1		N/A
				10.	Cattle & calves
Mora	589	\$12,842	140	11.	Other crops & hay
				12.	Nursery, greenhouse, & floriculture

³ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009

The typical farm in this region is not profitable. The figure below details AVERAGE income from operations per farm as negative for the counties listed. MEDIAN income per farm was also negative. Some farms are run for hobby, and some seek loses for tax purposes. Ongoing losses challenge sustainability and economic viability.





FARMS IN NORTHERN N.M. BY COUNTY - VALUE OF SALES 5

The table categorizes farms into sizes by sales. Eighty percent of farms in Santa Fe, Rio Arriba, Taos, and Mora counties are small scale. Efforts to grow medium sized farms (grossing \$10K - \$100K annually) impacts nearly 600 farms. Activities aimed at small farms may add value for nearly 3,000 farms. To grow this cluster, strategies benefiting both medium and small farms are needed.

⁵ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

Farms by value of sales	Santa Fe	Rio Arriba	Taos	Los Alamos	Mora	Total
< \$1,000 - \$10,000 (Small)	390 (80%)	1,052 (80%)	546 (86%)	7 (100%)	461 (78%)	2,456
\$10,000 - \$100,000 (Medium)	82 (17%)	245 (19%)	81 (13%)	0	107(18%)	515
> \$100,000 (Large)	17 (3%)	15 (1%)	10 (2%)	0	21 (4%)	63
Total	489	1,312	637	7	589	3,034

⁴ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

3. REVIEW OF RECENT REPORTS ON LOCAL AGRICULTURE

"Northern NM's food system "has potential to be a major locomotive for economic growth and a magnet for a new generation of innovators who need access to capital and a place to put their energy and creatively to work. This model takes into account economic, social and environmental impacts stewardship. This system can revitalize and ensure the continuity of small and midsized family farms that steward the land, nourish our communities and our health, and comprise the fundamental building blocks of local food security. Enhancing the system is a massive undertaking. It is an entrepreneurial effort of unprecedented scale and is based on an economic model that will be new to some people." (The Food Commons)

Within the past two years, no fewer than six major reports on food and agriculture were published. They have each significantly contributed to documenting the current state of local food and agriculture while identifying the direction the cluster is heading. Major report summaries are provided here, with extensive detail on each available in the appendix.

The following documents are summarized here:

- "Sustainable Agricultural Development Report" by NM Governor's Green Jobs Cabinet and the Sustainable Agriculture Development Working Group
- "Closing New Mexico's Rural Food Gap" by Farm to Table
- "Study of Grass Fed Beef as a Value Chain" by Ciepiela, Cecilia, and Steve Warshawer
- Dreaming New Mexico's "An Age Of Local Food Sheds;
 A Fair Trade State"
- Michael Shuman's "Prospects for Food Localization in New Mexico"
- Jim Cochran / Larry Lee's "The Food Commons:

"SUSTAINABLE AGRICULTURAL DEVELOPMENT REPORT": NM GOVERNOR'S GREEN JOBS CABINET & THE SUSTAINABLE AGRICULTURE DEVELOPMENT WORKING GROUP

This report summarizes areas for focus and strategic actions to grow this cluster. It identifies key stakeholder groups that worked on the report and their recommendations at the behest of Governor Richardson. These stakeholders are critical to any implementation going forward. It appears there is buy-in to the report's major points and recommendations. The report also has a strong focus working with tribal communities, key for New Mexico agriculture. The group tackled the topic of sustainability, connected to development of green jobs, and identified a current state baseline for sustainable agriculture. The summary details initiatives underway and next steps. This report prioritized focus areas similar to this REDI report: Policy, Infrastructure, Value Chains/Market Solutions, and Research/Education. These recent findings show conclusively that wide-spread collaboration and networked solutions for agriculture are vital for New Mexico. To note, nowhere in the report do they use language of a "cluster."

"CLOSING NEW MEXICO'S RURAL FOOD GAP" BY THE NEW MEXICO FOOD AND AGRICULTURE POLICY COUNCIL

This provides "an extensive list of recommendations that, if implemented, would be a systemic approach to increasing access to healthy, affordable, and culturally significant foods to rural under-served communities." The focus of this report is that if only high end, expensive specialty foods are developed or only cheap, non-nutritional foods are developed in the food system, the majority of those in need will not be served. This is the food gap. Food and agriculture developments must serve the entire continuum – high end to low end markets – with nutritious foods. Another important point in this report is that current production and economic systems of non-nutritious food is unsustainable. The current food system

externalizes many costs, such as healthcare costs from the impact of non-nutritious foods. When real costs are included, such as environmental degradation and healthcare, unhealthy agricultural production is not affordable. "Poverty, hunger and food inaccessibility are prevalent in this state" and must be a boundary condition of all further work.

BUILDING A NATIONAL NETWORK OF LOCALIZED FOOD SYSTEMS" "STUDY OF GRASS FED BEEF AS A VALUE CHAIN" BY CECILIA CIEPIELA AND STEVE WARSHAWER

This effort documents the historic and current local beef industry as a value chain based business endeavor. It is a strong educational piece on value chain analysis. Beef is one of the largest cash crops for New Mexico. The long time practices for Northern N.M. ranchers need to be understood to better identify effective solutions. Value chain analysis will be crucial as many different types of farms and ranches seek to increase their production and profitability; allowing them to stay on the land and steward our natural resources. Some of the recommendations are currently being implemented. The work currently underway will be evaluated and become a model for many others.

DREAMING NEW MEXICO'S "AN AGE OF LOCAL FOOD SHEDS; A FAIR TRADE STATE"

Published by Bioneers, this report is a recent, comprehensive guide towards a common stakeholder vision. Every aspect of food and agriculture from farms to food security to water to climate change to regenerative governance is addressed in an integrated fashion – an example of a whole system. This report coined the term "agro-ecoregional food and water sheds." It shifts the way people see the interconnection of land and water across towns, counties and the region. This perspective engenders collaboration, something this cluster study also recommends. Collaboration will be the learning process of the future. This report can play an important role because when the current reality of the agricultural cluster becomes overwhelming, dreams/visions are reconciling forces for positive change. Dreaming New Mexico's outreach, education and follow-up are shifting children's experiences and adult minds.

MICHAEL SHUMAN'S "PROSPECTS FOR FOOD LOCALIZATION IN NEW MEXICO"

This report is full of statistics to shift investors' minds, to inspire politicians, and to drive policy changes to foster local agricultural growth. Michael Shuman makes the case for a new economic model of localization. This term is not understood by a majority of consumers nor those in the public or private sectors. The report emphasizes that people do not respond to the urgency of building local consumption for food security and climate disruption mitigation. The report addresses externalizing food production costs and its impact on society as a whole. The report categories are: Opportunities, Economic Benefits, Institutional Potential, Ecological Benefits and Implementation. It concludes with two dozen recommendations for public and private sectors.

JIM COCHRAN & LARRY LEE'S "THE FOOD COMMONS: BUILDING A NATIONAL NETWORK OF LOCALIZED FOOD SYSTEMS"

This report details how the development of the N.M. local food system can and should link, both physically and virtually, to other food systems. It re-envisions and re-creates local food moving past the current global, industrialized food system. In New Mexico, conversation is underway regarding this new model, particularly financing food production. The report identifies numerous capital challenges: food subsidies for mono-crops to paying farms not to produce to high interest rates for farmers/ranchers/producers to externalized transportation costs of bananas to the fact that schools cannot afford fresh fruits and vegetables from local farmers. These are all factors in an unequal playing field for this cluster. The report articulates a new paradigm. It proposes a new infrastructure model, a set of governing and operating principles to follow, and imagines a new economic structure. If the stakeholders in the New Mexico food system, current and new, are going to nurture growth, this report contributes a valuable context.

Together, these reports provide extensive background to understanding the REDI Initiative on food and agriculture. They are the foundation and provide building blocks upon which this report stands. Please refer to the appendix for a full list of recommendations synthesized from these reports.

4. THE PROCESS AND STAKEHOLDER INVOLVEMENT

The first step in the study was to form a working hypothesis of those areas of greatest need of systematic support. Seven specific topics for consideration were selected to define the Northern NM agricultural sector. They were drawn from research of local reports, national studies, case study review, and interviews with industry specialists. Seven topics were identified for consideration with preliminary recommendations listed as a starting point for further research and community input, detailed in the table below.

Topics for Consideration	Preliminary Specific Recommendations
 <u>Technical Assistance Support</u> Conduct outreach to, and needs assessment for, farms & companies Strengthen the current Technical Assistance provider network and referral system 	 Coordinate technical outreach providers: e.g. ag extension, loan programs, and other service providers Identify gaps, seek funding to close
 Marketing / Sales Develop local value chain partnerships Assist farmers, local producers to match supply/demand through marketing and sales Conduct educational campaigns to increase local consumption 	 Fund ways to aggregate farm and food products to increase sales for farmers Promote local food consumption
 <u>Capital Resources</u> Organize collaborative grant efforts Assist with funding, business financing gaps 	 Promote SF Farmer's Market loan fund; La Montanita's new loan fund Support collaborative grant application Link financial institutions to sector
 <u>Infrastructure</u> Fund, develop and/or sustain storage, processing and distribution mechanisms 	 Increase food aggregation, back-haul Develop cold storage and light processing facilities Sustain local Matanzas Develop transfer stations Establish & organize farmers' markets
 A Larger Workforce Leverage workforce development – increase interns and AmeriCorps for green jobs Develop a mentoring network for up–and-coming farmers and local producers 	 Seek funding for farmer/mentor program Add AmeriCorps & VISTAs in region
 <u>Leadership Development</u> Form an ongoing, long-term industry cluster regional council. Hold industry-specific events; sponsor networking services 	Coordinate with key stakeholders to establish and fund an industry cluster regional council
 Policy Lobby for public policy to help agriculture Support agriculture friendly infrastructure 	Food hubsRenew land conservancy tax benefit

The next step was to analyze secondary research and identify local issues and contextual trends. Review and analysis is available in the appendix. Specific topics and points identified from recent publications on local agriculture are below:

The next step was to analyze secondary research and identify local issues and contextual trends. Review and analysis is available in the appendix. Specific topics and points identified from recent publications on local agriculture are below:

1. TECHNICAL ASSISTANCE SUPPORT 6,7

LOW EFFICIENCY:

New Mexico's farmers tend to have lower yields than national averages. Small famers may lack water use and commercial farmers over-use fertilizer. USDA classifies 91% of farms "small" and most operating without/with little profits. USDA predicts continued distribution shift of farm sales with small farms (and their share of sales) declining. Overall farm production will face larger operation.

POTENTIAL WASTE:

Restaurants and households waste 10-15% of their food. Local recycling, with collection rates below national averages, does not include organic wastes.

INFLUENCE BY ENVIRONMENTAL CHANGES:

U.S. agricultural production is affected by environmental factors. Soil and water degradation decreases biodiversity, which impacts food security. Food requiring transportation varies with fossil fuel fluctuations. Increasing demands for quality and organic food that complies with environmental, health, and labor standards make these scare resources expensive.

2. MARKETING / SALES (LEADING TO FOOD INSECURITY ⁸ SUPPLY AND DEMAND GAP FOR LOCAL FOOD:

A critical concern in N.M.'s local food system is a deep supply / demand gap. According to Dreaming New Mexico, about 8% of 20,000 farms and ranches in NM have direct sales to local buyers. More than 99% of cash receipts (over \$4 billion) spent by New Mexicans on food is imported. Most food produced in the State is exported. Local farmers and ranchers arguably do not know what local consumers want and do not appear to cater to them.

ROOTED CONSUMPTION HABITS AND PREFERENCES:

A major reason for low consumption of local food in New Mexican is deep rooted preferences. Many local foods are seasonal; many who desire "fresh" vegetables and fruits prefer imports rather than

Oreaming New Mexico / Bioneers. An Age Of Local Foodsheds and A Fair Trade State DRAFT. Santa Fe, NM. United States.

⁷ Department of Agriculture and Economic Research Service. Small Farms in the United States: Persistence Under Pressure. Washington: USDA, 2010.

⁸ Farm to Table. Closing New Mexico's Rural Food Gap. Santa Fe, NM: Farm to Table, 2006.



local canned, frozen, dried or stored foods. Local citizens place higher value on lower price and convenience over local and natural.

SCARCE AND DISTANT SALES CHANNELS:

Grocery stores are not in all communities – contributing to the food gap. They do not or cannot meet local demand for many reasons (e.g. lack of availability, cost, etc.).

POOR ACCESS TO TRANSPORTATION:

Rural NM residents indicate lack of access to public transportation in rural communities cripple their ability to reach grocery stories, farmers' markets, and food stamp offices. Infrastructure insufficiency worsens food gap and insecurity.

FALLING PRICES:

Food prices continue to fall as technology reduces production cost per unit. Farmers increasingly lose more of the final retail dollar on products to mid-steps of the food chain.

COMPETITION:

As niche markets show themselves to be profitable, larger chains and superstores are likely to sell the near equivalent products at cheaper prices from non-local sources. This kind of cut-throat competition will undermine local small producers' profitability.

3. CAPITAL 9,10

LACK OF FUNDING COORDINATION:

There is little coordination connecting right candidates to funders. Candidates are less competitive due to lack of collaboration in grant writing. More fundraising would be helpful for private and Non-Governmental Organizational sectors.

SHORT SUPPLY OF EQUITY CAPITAL:

Availability of debt has increased extensively over the last decade for Northern N.M. small business. Equity capital remains short in this sector despite state leadership making equity inexpensive and easy to raise capital from unaccredited investors.

IMBALANCED FUNDING:

Studies found several funding inequalities in state government policies. Populated areas get most state funding. Big industry and corporations imposing pressure receive greater subsidies; grassroots organizations do not receive funding at the same levels.

⁹ Shuman, Michael H. Prospects for Food Localization in New Mexico. Silver Spring, MD, 2010.

¹⁰ Farm to Table. Closing New Mexico's Rural Food Gap. Santa Fe, NM: Farm to Table, 2006.

4. INFRASTRUCTURE¹¹

INSUFFICIENT EQUIPMENT AND FACILITIES:

Appropriate equipment and facilities need to be capitalized for the local economy to function efficiently. Examples of distributional insufficiencies in New Mexico include: empty-truck returns, inappropriately sized vehicles for transport, mileage routing, refrigeration, storage, packaging, and processing.

SMALL VOLUMES FROM MULTIPLE SOURCES:

Another distributional difficulty in New Mexico is that aggregating many small volumes of crops from small farmers and distributing a consistent food product to grocery stores is extremely costly and time-consuming. Many producers do not have enough financial and/or human capital to have facilities to solve this issue.

INSUFFICIENT MATCHING MECHANISMS:

Matching of supply with demand for small to mid-size markets requires monitoring market trends, gathering and disseminating market information and consumer preferences to producers, and identifying where the local value chain has competitive advantage over other value chains.

5. WORKFORCE 12,13

LACKING PROFESSIONAL SKILLS:

According to the USDA Census, the average American farmer's age increased from 50.3 in 1978 to 57.1 in 2007. A majority of farm operators are between 45 and 64, with farm operators above 65 years old the fastest growing segment. Meanwhile, the number of farm operators under the age of 25 has been decreasing. In line with this national trend, the typical New Mexico farmer is nearly 60 years old.

INCREASING BRAIN DRAIN:

As the number of residential and migrant farmers, ranchers, and professions shrinks due to slim profit margins and challenging working conditions, the state is not building its human resources to expand the agriculture industry.

MORE SPECIALIZED TRAININGS:

Although New Mexico has established good agriculture extension programs to educate farmers about local food opportunities, most of the state's resources support large farms and exports. As awareness of local food production has increased, local crop specialists are needed in each agro-ecoregion.

¹¹ Dreaming New Mexico / Bioneers. An Age Of Local Foodsheds and A Fair Trade State DRAFT. Santa Fe, NM.

Waddington, Lynda. "Panelists search for answers to farmer drain."
The Minnesota Independent 13 Mar. 2010: http://minnesotaindependent.com/56309/ panelists-search-for-answers-to-farmer-drain.

¹³ Shuman, Michael H. Prospects for Food Localization in New Mexico. Silver Spring, MD, 2010.

6. LEADERSHIP 14 NARROW GOVERNMENT ROLE:

Research also suggests that the current role of the New Mexican Department of Agriculture (NMDA) is too narrow. In addition to growing raw foodstuff, farming, and developing markets for these producers out of state, NMDA should expand its scope of business to issues regarding food security as well.

7. POLICY 15

UNEQUAL TAX SUBSIDIES:

Government benefits to NM farmers are low as the largest support is for commodity crops - corn, soybeans and wheat – are less frequent in NM. Grain corn subsidies have moved beef slaughter and packaging out of state. This policy promotes corn-fed beef and reduces grass-fed beef, negatively impacting New Mexico production.

HIGH INSURANCE AND CERTIFICATION COSTS:

Insurance liability requirements are determined based on globalized food manufacturing and risks of food-borne illness with extensive trade. Insurance requirements, along with health and organic certification costs, impose burdens on local farms and ranches producing sustainable food that arguably do not face those risks. Local products are needed.

LITTLE PUBLIC DIALOGUE:

Lack of regular communication channels between private/civil society and the State discourages public participation in government policy and decision-making.

Collectively, these facts and figures present overwhelming barriers. The development of this cluster and progress will require strategic involvement, long term commitment, and patience.

5. PRIORITIZED AREAS FOR POTENTIAL RDC SUPPORT

14 Ibid

¹⁵ Dreaming New Mexico / Bioneers. An Age Of Local Foodsheds and A Fair Trade State DRAFT. Santa Fe, NM. All of the topics for systemic support detailed above require attention in Northern NM. Prioritized areas were identified that balanced potential for impact across a range of stakeholders with stated needs. These priorities were refined through interviews, secondary research, and consideration of existing infrastructure.

The five areas vetted were:

- 1. Infrastructure Development
- 2. Policy Development & Advocacy
- 3. Capital Resource Development
- 4. Specific Value Chain Enhancement
- 5. Regional Leadership & Coordination

The five focus areas were detailed as follows.

A.INFRASTRUCTURE

PROBLEM/OPPORTUNITY STATEMENT:

Most farms in N.NM are small to mid-sized. Median farm size of 637 farms in Taos County is 27 acres, 1,312 Rio Arriba farms is 30 acres, and 489 Santa Fe farms is 17 acres. Balancing between a economy of scale, land availability, short growing seasons and time to develop new markets, leads most farms to operate in the red. When these challenges are overcome, farmers are able to increase in size, work to aggregate volume, build demand, secure contracts and produce high quality products. Advances must be matched with growth so as to not over build; e.g., trucks that distribute food need back-hauling fulfilled so as to not return empty. Solutions vary and must be tailored to local conditions. Certain communities are large enough for a "food hub"- a place or infrastructure to market, process and distribute foods locally. Other locales merely need to enhance a community kitchen, farmers' market, or food depot to spur more activity in the local food system.

TARGET:

Develop county-specific infrastructure components and link them regionally into a networked agro-eco-regional system to close gaps of aggregation, light processing, storage and distribution. Build upon each town and county assets, link these resources and establish New Mexico's agro-eco-regional system.

B. POLICY & ADVOCACY

PROBLEM/OPPORTUNITY STATEMENT:

There are numerous laws supportive of local agriculture and economic development, including land easements (refer to Appendix 10 for more details), subsidies, and new local purchasing preferences. However, most are not necessarily aimed at, or easy to access for, small and medium farms, particularly those interested in social and environmental bottom lines. Progress has been seen, such as in the amendment to the recent Farm Bill where small farmers selling



directly to consumers within state lines or a 275 mile radius and are exempt from some regulations outlined in the Food Safety Bill. Conducive policy may be challenging to implement, particularly in these lean times, but agriculture is of value to the entire state with far-reaching implications for the region. There is a need for a clear, local agriculture policy agenda and more advocates joining winwin opportunities, such as local procurement, school food budgets, and land easements. It is valuable for advocates to be seen as non-partisan building a coalition of business and support entities.

TARGET:

Increase the number of organizations and people who will bring their voices and resources to bear on policy changes supporting development of Northern NM's regional food system.

C.CAPITAL RESOURCES

PROBLEM/OPPORTUNITY STATEMENT:

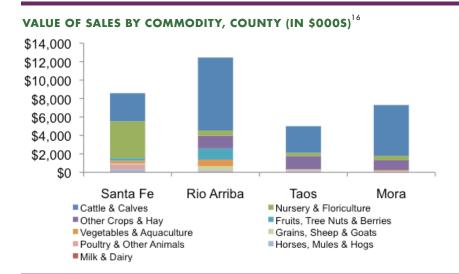
There is not enough money available to greatly increase local food production and consumption. Money that exists is under-allocated. Many farms and small scale agri-businesses are experiencing credit problems such as accessing commercial capital and qualifying for loans. In the typical competitive funding environment: some win while others lose, or everyone gets a little - but not enough. Federal funders, like USDA, identified NM 'sending back' millions of dollars each year. Grant funders, with fewer dollars these days, prefer targeted asks, such as collaborative applications and larger solutions. Private investment lags demand due to lack of understanding to accurately measure risk, mismatched expectations for traditional investment returns. New players, like 'Slow Money' and socially responsible investment, are growing and desire local deals.

TARGET:

Establish a Funding Convener – a regional broker between providers of capital and those seeking it. Establish a collective effort with a menu of prioritized projects with specific price tags to jointly fundraise.

D.SPECIFIC VALUE CHAIN ENHANCEMENT, BEEF INDUSTRY PROBLEM/OPPORTUNITY STATEMENT:

Beef is one of the largest agricultural products in NM by total sales. As such, the local Northern NM beef industry is a keen area for REDI attention. In the counties, cattle and calves constituted \$15MM in sales in 2007. That is approximately a quarter of all agriculture sales for the region. As a cash crop, the opportunity to grow the sector and expand the beef-specific value chain can result in significant income benefits. Today, local needs include a cohesive local brand, better infrastructure, returning state managed certification, and more marketing / sales channels. Building up nascent efforts is necessary.



TARGET:

Support greater development of the beef value chain. Identify other product value chains for support.

E. REGIONAL LEADERSHIP & COORDINATION PROBLEM/OPPORTUNITY STATEMENT:

Due to the nature of farming, ranching and agricultural product processing and producing, time to coordinate marketing, financing, and strategic planning is hard to come by. Stakeholders indicated regional coordinators are needed for value chains: Farm to Table, Farm to Institution, Farm to Restaurant and more. Coordination should re-enforce leadership councils that currently exist. Coordination would address access and food security.

TARGET:

Fund a regional food system coordinator.

¹⁶ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. Washington, 2009.

6. SUGGESTED RECOMMENDATIONS & NEXT STEPS

The five topic areas above were highlighted for potential REDI involvement. A public input document was drafted for circulation among stakeholders. This 'single text negotiating document' served as the means of community communication and input. This format was undertaken Instead of convening groups as consultants were told it was a busy harvest time, stakeholders were tired from having convened numerous times, and some stakeholders wary of new entrants. All were invited to give input without being badgered; many were approached directly.

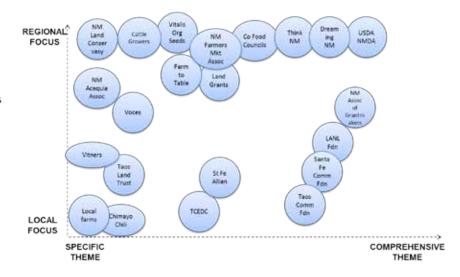
Consultants and RDC staff attended key community events and meetings where many stakeholders participated. Feedback was gathered from comments made directly in the draft document, interviews and emails. The public document, list of organizations that responded, and summarized comments are in the Appendix. From this input process, topics were prioritized, specific action items detailed, and (some) costs were documented.

SUMMARY OF PUBLIC COMMENTS

More than 40 organizations provided input. The respondents cover a wide landscape of diverse community stakeholders whose geographic focus and organizational purpose vary. These are visualized in the figure below. Commentary should be viewed as a sampling; not a scientifically measureable public process. In sum, the information composed in the report was widely appreciated by respondents.

LANDSCAPE MAP OF SELECT COMMUNITY STAKEHOLDERS PROVIDING COMMENTS

Note: This schematic is meant to be representational for illustrative purposes only, rather than explicit or comprehensive. Its purpose is to show the diversity and breadth of stakeholders involved in agriculture in Northern NM and a sampling of those who participated in this study.



Suggestions for future work include classifying information and action by foodsheds or agro-eco-regions, rather than county lines. The goal of "growing the Northern NM food system" requires more clarification in outreach as it means different things to different people (including increasing consumption, helping farms, generating employment, and other interpretations.) Presentation of information with details as to quantitative and qualitative financial return and value generation were recommended to specify goals and targets within each recommendation.

PUBLIC INPUT COMMENTS TIED TO EACH RECOMMENDATION AREA ARE SUMMARIZED BELOW

INFRASTRUCTURE DEVELOPMENT:

Technical assistance (TA) was widely regarded as a must-do to grow the food system. Suggestions included assistance in developing local cooperatives, increasing small farms' access to technologies, facilitating farmer-to-farmer education and entrepreneur development, exposing producers to more marketing outlets, helping growers develop seasonal extension capacity and product differentiation. Among natural resources, conservation easements was recognized as a great opportunity but some people thought it would be costly and not benefit small farmers much. Improving the efficiency of land assets and water systems was also commonly identified.

CAPITAL RESOURCE DEVELOPMENT:

To increase capital resources for local producers, people suggested creating specialized loan / revolving funds; advancing specific crops and organics (due to funding potentials and margins); and investigating eco-services as an income source. TA could help local producers access funding. On the funder side, frequent recommendations included educating funders of the need for long term sector strategies, encouraging funders to act collectively, liaising with government agencies to move capital to Northern NM agriculture, and asking the state to make a serious commitment with recurring funding. Other ideas included supporting projects declined by USDA for grants which could be made 'shovel ready', educating funders, and taking investors (like banks) out to farmers.

POLICY ADVOCACY:

It is suggested there be elaboration on the importance and implications of the recent Food Safety Bill. Other policy issues highlighted by respondents included local procurement efforts, increasing efficiency

in state government with conservation easements, reinstatement of the Livestock Board to certify meat, enhancing local slaughtering facilities (including laws favorable to mobile matanzas), ensuring policy affecting agriculture is beneficial to 'the little guys', and subsidy programs to raise the per meal price of schools/institutions. Developing food policy councils at all levels could further enable these policies to have home within each branch of government.

REGIONAL LEADERSHIP:

Almost all respondents who commented on this area suggested REDI/RDC build regional leadership via (1) a precise definition of who/how to serve and (2) participating in existing broad coordination/collaboration across Northern NM from governments, political subdivisions (i.e. Soil & Water Conservation Districts), watershed associations, academia, local business owners, to non-profits (especially churches). Understanding what existing in-state groups/collective efforts and out-of-state community examples are there are valuable for regional coordination. Appendices 5 and 6 summarize successful examples of local agriculture promotion from other communities/regions, in order to provide REDI with more references.

VALUE CHAIN ENHANCEMENT:

While beef was acknowledged as the largest cash crop by sales, many expressed interest in other products including Chimayo chili, apples, organics, wine, and cultivar adaptation of new fruits/vegetables. Creating a certification process for sustainable stewardship practices and healthy/humane animal raising/handling practices was recommended to promote local labels. Building markets and connecting farmers/ranchers with them was seen as helpful. Processing was cited as a major barrier. It was recommended the TCEDC model be examined and built upon for value added products, a commercial kitchen and local brand.

OTHERS:

The unique historical and cultural dimension of food production in Northern NM was emphasized by respondents and suggested as integral to marketing. To further leverage this, people recommended integrating agro, eco and cultural tourism. One respondent highlighted economic diversification of value – adopting other forms of land use and economic development compatible with agriculture (e.g. alternative energy production, eco-tourism, etc.). Interviewed local farmers expressed need for affordable and capable labor, and there is concern about the lack of young farmers and the next generation moving away from this profession.

SELECTION PROCESS

Overall feedback, which came in qualitative form, was tabulated and collated. In developing a summary, aggregation was done as follows dividing the areas for focus by topics of analysis:

	Infrastructure Development	Policy Advocacy	Capital	Regional Leadership	Beef Value Chain
Size of Problem					
Degree of Difficulty					
Local Food Security & Jobs		0			
RDC Strength		0			
Stakeholders Feedback		0			
Short Term Gains		0			

Green light is seen as 'go', yellow is proceed with caution, and red is watch out.

The factors for decision-making / topics for analysis were defined as follows:

- PROBLEM SIZE: How big the problem is, and its potential for regional efforts.
- DEGREE OF DIFFICULTY: How hard it is to make headway, especially at the regional level.
- **LOCAL FOOD SECURITY & JOBS:** The potential for this effort to generate jobs, economic benefits (particularly the tide lifting all ships) and improve local food security.
- **REDI STRENGTH:** Degree to which this area is a natural activity for REDI.
- **STAKEHOLDERS' ACCEPTANCE:** Whether those involved are receptive to others' contribution, particularly REDI/RDC.
- **SHORT TERM GAINS:** The prospects for advancement in the short term (within 18 months)

Based upon these relative assessments, the five topic areas were 'scored' by each factor. Scores were assigned 1 for red, 3 for yellow and 5 for a green light. Scoring is therefore:

	Infrastructure	Policy	Capital	Leadership	Beef
Problem Size	5	5	5	3	5
Difficulty	1	3	3	3	3
Food Security & Jobs	5	5	5	3	5
Potential					
RDC Strength	3	5	5	5	3
Stakeholders' Acceptance	3	5	3	1	1
S/T Gains	3	5	5	3	3
TOTAL	20	28	26	18	20

CONCLUSION

It is for these reasons outlined above that Policy Development & Advocacy, as well as Capital Resource Development were identified for focused attention by REDI/RDC. All five recommendation areas are vital to a healthy agricultural cluster in Northern NM. These two avenues provide the best opportunity for REDI to contribute. These two then make an impact in the other areas. For example, a menu for raising capital will include numerous infrastructure efforts. Leadership will be exhibited by stakeholders in convening funding organization. REDI will leverage existing networks and grow the voice for local agriculture. And, progress in any of the value chains can be advanced through policy efforts and financing.

This report emphasizes the importance of taking strategic steps in the economic cluster development of Northern NM agriculture. This sector is an economic driver that must be nurtured over time. Like any crop or animal, if grown too fast, picked before it is ripe, or given unnatural hormones it will not be of best value – lack nutrition for human and environmental health. RDC's involvement in high value agriculture will require building relationships and bringing something of value to the table. REDI has made a commitment to this cluster and it is imperative to keep that commitment, following stakeholder voices that contributed to this report.

The report appendices are for the avid learner. They hold a vast amount of information crucial to this cluster.

CONTENTS

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- 1. HISTORY OF REDI AND THEIR CLUSTER INITIATIVES
- 2. LOCAL DEMOGRAPHIC OVERVIEW BY COUNTY
- 3. LOCAL AGRICULTURAL OVERVIEW BY COUNTY
- 4. LOCAL AGRICULTURAL DATA & FOOD SYSTEM PROFILES
- 5. PEER COMMUNITIES WITH BEST PRACTICES
- 6. CASE STUDIES OF LOCAL FOOD INITIATIVES
- 7. THEORETICAL METHODOLOGIES
- 8. LITERATURE REVIEW RECOMMENDATIONS SYNTHESIZED BY CATEGORY
- 9. INTERVIEW & STAKEHOLDER LISTS
- 10. SUMMARY OF CONSERVATION EASEMENTS
- 11. INTERVIEW LETTER
- 12. PUBLIC INPUT DOCUMENT
- 13. BIBLIOGRAPHY



1. HISTORY OF RDC, REDI AND THEIR CLUSTER INITIATIVES

REDI is Northern New Mexico's Regional Economic Development Initiative, covering the counties of Santa Fe, Rio Arriba, Los Alamos and Taos. The REDI Strategic Plan, completed in 2008, is a long-term, 25-year plan for economic development in the region. Currently, it is implementing several components of the plan, including Regional Broadband, Economic Development Services, Cluster Strategies, and a Public-Private Partnership to sustain the effort. REDI is one of Los Alamos County's "Progress through Partnering" initiatives, funded by Los Alamos County gross receipts tax revenue and managed by the Regional Development Corporation. REDI was initiated in 2007, through cooperative agreements among Los Alamos County, the City of Santa Fe, Santa Fe County, the City of Española, Rio Arriba County, Taos County and the Town of Taos. In recent years, regional partners have grown to include tribal governments and private sector entities in Northern New Mexico.



Currently, RDC is working on the Northern New Mexico's Green Cluster, which includes Solar, Wind, Green Building, Energy Efficiency and overlapping areas with the Technology Cluster. The resulting Green Cluster Strategy has established partnerships to further develop and grow the cluster, and recommends specific projects to strengthen weak links in the value chain. REDI also received \$74 million in federal stimulus funds, August 2010, to develop the REDI Open Networks. It will:

- Provide high-speed bandwidth to community anchor institutions and last-mile providers that is not currently available in the market
- Offer multiple options for transport
- Allow last-mile providers to access new markets, increasing customer choice and affordability

As publically-owned open networks, the infrastructure and bandwidth will be available to all service providers, reducing costs for the consumer. Based upon 144 count fiber-optical cable delivering Metro Ethernet services up to Gigabit Ethernet speeds, the networks are capable of supporting multiple applications and uses, including internet, communications, education and distance learning, telemedicine and Emergency Medical Records, next generation public safety and cyber security, economic development and the smart grid/green grid.

REDI has also completed an assessment of Northern New Mexico's Technology Cluster under the leadership of Steve Stringer, Industrial Fellow at LANL. The resulting Technology Cluster Strategy has led to a strong private sector partnership with the New Mexico Technology Council, which is working in partnership with REDI to grow the cluster and establish a Technology Leadership Council for the region.

Finally, REDI completed, with Los Alamos, Rio Arriba, Santa Fe and Taos counties, a Regional Economic Development Strategic Plan. The Plan recommended a public private partnership be formed to implement a regional approach to economic development encompassing four areas of joint activity, to:

- Develop business friendly policies
- Enhance regional infrastructure in support of economic competitiveness
- Support human capital initiatives to upgrade the skills of the local workforce
- Create cost effective, non duplicative economic development services capabilities

This is a roadmap to guide implementation of cost-effective, nonduplicative regional economic development business attraction, retention and expansion, and creation services.

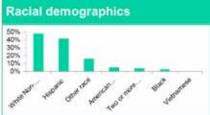
REDI has a cluster-focused approach to economic development services. The original REDI report discusses the difference between cluster creation and cluster activation. While agriculture in the region is alive and vital, it needs both cluster creation and activation support. Because farming and food production are locally focused with national and even global export capacities, care must be taken to nurture growth in all arenas.

2. LOCAL DEMOGRAPHIC OVERVIEW BY COUNTY

This section provides demographic data by county in uniform format for ready aggregation and comparison.

BERNALILLO COUNTY DEMOGRAPHICS¹⁷



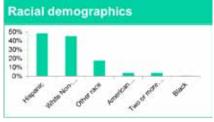


Basic information

- Population: 642,527 (2009)
- · Rural population: 4% (2009)
- Median income: \$46,988 (2008)
- % of population below poverty line: 14.3% (2008)

SANTA FE COUNTY DEMOGRAPHICS¹⁸





Basic Information

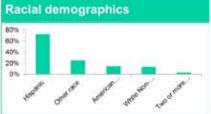
- Population: 147,532 (2009)
- · Rural population: 25% (2009)
- Median income: \$55,000 (2008)
- % of population below poverty line: 12.3% (2008)

¹⁷ U.S. Census Bureau (quickfacts.census.gov/ qfd/states/35000.html), City-Data (www.city-data.com), Google Map

¹⁸ Ibid

RIO ARRIBA COUNTY DEMOGRAPHICS¹⁹



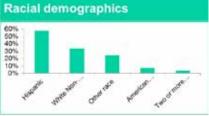


Basic information

- Population: 40,678 (2009)
- Rural population: 57% (2009)
- Median income: \$38,578 (2008)
- · % of population below poverty line: 17.2% (2008)

TAOS COUNTY DEMOGRAPHICS²⁰





Basic Information

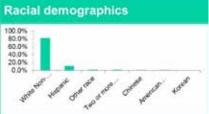
- Population: 31,507 (2009)
 Rural population: 60% (2009)
- Median income: \$36,414 (2008)
- · % of population below poverty line:
- 18.1% (2008)

²⁰ Ibid

¹⁹ U.S. Census (quickfacts.census.gov/qfd/ states/35000.html), City-Data (www.city-data.com), Google Map

LOS ALAMOS COUNTY DEMOGRAPHICS²¹



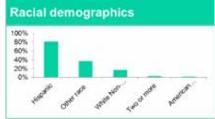


Basic information

- Population: 18,074 (2009)
- Rural population: 12% (2009)
- Median income: \$102,602 (2008)
- · % of population below poverty line:
- 3.1% (2008)

MORA COUNTY DEMOGRAPHICS²²





Basic information

- Population: 4,935 (2009)
- Rural population: 100% (2009)
- Median income: \$28,962 (2008)
- · % of population below poverty line:
- 25.4% (2008)

²¹ U.S. Census (quickfacts.census.gov/qfd/ states/35000.html), City-Data (www.city-data.com), Google Map

²² Ibid

3. LOCAL AGRICULTURAL OVERVIEW BY COUNTY

food shed, watershed, or population center, the best data available was by county, condensed here for practical purposes.

BASED ON THE COLLECTED DATA, KEY FINDINGS INCLUDE:

- Most farms are small in scale
- Product mix differs across counties.
 Cattle / calves are highest value by cash receipts
- Farm number and median size vary. Each county or food shed might require a different strategy
- Average farm principle is 59 years old; a new generation of farmers is lacking

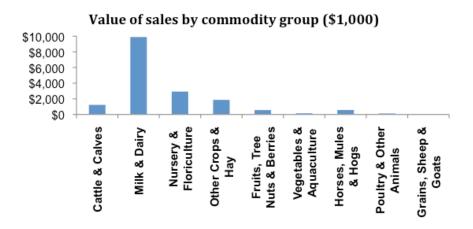
The original Census of Agriculture tracked sixteen commodity groups. These were abbreviated into nine categories (those with low volumes and value are combined into 'other' for graphical display).

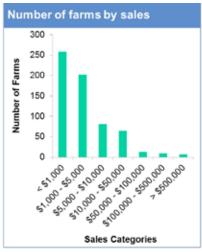
Northern NM agriculture needs to be understood in the context of the entire region. While aggregation is more likely organized by

- CATTLE & CALVES: Represents original commodity group "Cattle and calves"
- MILK & DIARY: Represents original commodity group "Milk and other dairy products from cows"
- NURSERY & FLORICULTURE: Original commodity group "Nursery, greenhouse, floriculture, and sod"
- OTHER CROPS & HAY: Represents original commodity group "Other crops and hay"
- **FRUITS, TREE NUTS, & BERRIES:** Represents original commodity group "Fruits, tree nuts, and berries"
- **VEGETABLES:** Combines "Vegetables, melons, potatoes, and sweet potatoes" and "Aquaculture"
- HORSES, MULES & HOGS: Combines original commodity groups "Horses, ponies, mules, burros, and donkeys" and "Hogs and pigs"
- POULTRY & OTHER ANIMALS: Combines "Poultry and eggs" and "Other animals and other animal products"
- **GRAINS, SHEEP & GOATS:** "Grains, oilseeds, dry beans, and dry peas" and "Sheep, goats & their products"

The original commodity groups removed for N.NM with zero or close to zero production were: "Tobacco," "Cotton and cottonseed," and "Cut Christmas trees and short rotation woody crops"

BERNALILLO COUNTY LOCAL FOOD SYSTEM DATA 23





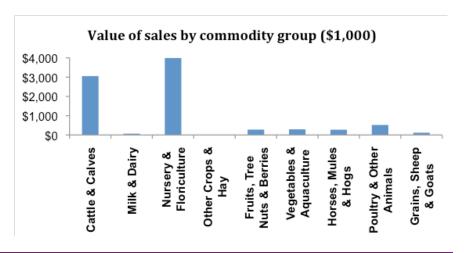
Economic profile (2007)	
Total sales - Crops (33%) - Livestock (67%) - Average per farm	\$17,883,000 \$5,886,000 \$11,997,000 \$28,162
Government payments - Average per farm	\$45,000 \$7,650
Total farm production expenses - Average per farm	\$19,124,000 \$30,116
Net farm income of operation - Average per farm Median net cash farm income	\$568,000 \$895 -\$2,608

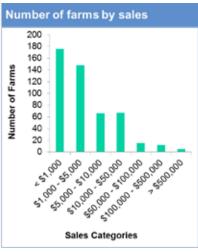
Number of Farms	635
Land in Farms	237,735 acres
Mediam Size of Farm	7 acres

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	243
Other	392
Average age of principal operator (years)	59.5
All operators by race:	
American Indian or Alaska Native	42
Asian	0
Black or African American	0
Native Hawaiian or Other Pacific Islander	0
White	835
More than one race	7
All operators of Spanish, Hispanic, or Latino Origin	359

²³ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

SANTA FE COUNTY LOCAL FOOD SYSTEM DATA 24





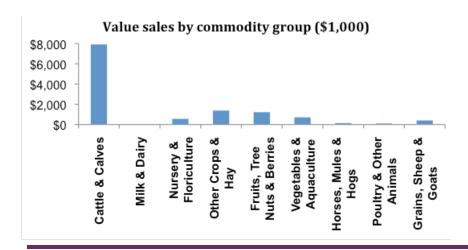
Economic profile (2007)	
Total sales - Crops (68%) - Livestock (32%) - Average per farm	\$12,614,000 \$8,591,000 \$4,023,000 \$25,795
Government payments - Average per farm	\$49,000 \$2,227
Total farm production expenses - Average per farm	\$16,335,000 \$33,405
Net farm income of operation - Average per farm Median net cash farm income	-\$2,348,000 -\$4,801 -\$3,388

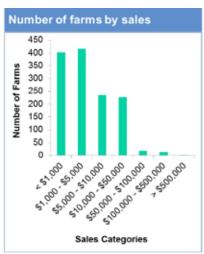
Number of Farms	489	
Land in Farms	569,404 acres	
Mediam Size of Farm	17 acres	

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	209
Other	280
Average age of principal operator (years)	58.3
All operators by race:	
American Indian or Alaska Native	45
Asian	2
Black or African American	2
Native Hawaiian or Other Pacific Islander	0
White	650
More than one race	6
All operators of Spanish, Hispanic, or Latino Origin	233

²⁴ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

RIO ARRIBA COUNTY LOCAL FOOD SYSTEM DATA 25





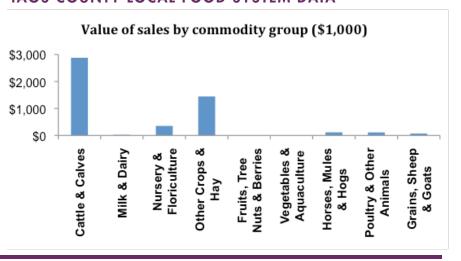
Economic profile (2007)	
Total sales - Crops (30%) - Livestock (70%) - Average per farm	\$12,763,000 \$3,888,000 \$8,875,000 \$9,728
Government payments - Average per farm	\$323,000 \$3,675
Total farm production expenses - Average per farm	\$17,082,000 \$13,020
Net farm income of operation - Average per farm Median net cash farm income	-\$858,000 -\$654 -\$1,536

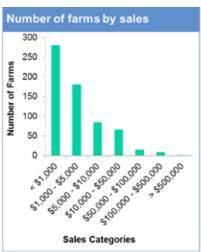
Number of Farms	1,312
Land in Farms	1,460,186 acres
Median Size of Farm	30 acres

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	600
Other	712
Average age of principal operator (years)	58.1
All operators by race:	
American Indian or Alaska Native	87
Asian	3
Black or African American	0
Native Hawaiian or Other Pacific Islander	8
White	1,782
More than one race	38
All operators of Spanish, Hispanic, or Latino Origin	1,400

²⁵ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

TAOS COUNTY LOCAL FOOD SYSTEM DATA 26





Economic profile (2007)	
Total sales - Crops (39%) - Livestock (61%) - Average per farm	\$5,992,000 \$2,330,000 \$3,661,000 \$9,406
Government payments - Average per farm	\$81,000 \$1,162
Total farm production expenses - Average per farm	\$6,891,000 \$10,818
Net farm income of operation - Average per farm Median net cash farm income	-\$332,000 -\$521 -\$1,653

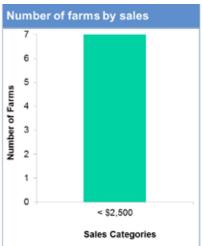
Number of Farms	637	
Land in Farms	456,932 acres	
Median Size of Farm	27 acres	

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	266
Other	371
Average age of principal operator (years)	59.4
All operators by race:	
American Indian or Alaska Native	63
Asian	3
Black or African American	3
Native Hawaiian or Other Pacific Islander	0
White	819
More than one race	10
All operators of Spanish, Hispanic, or Latino Origin	616

²⁶ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

LOS ALAMOS COUNTY LOCAL FOOD SYSTEM DATA 27

Value of sales by commodity group (\$1,000) – information withheld to avoid data by individual farms



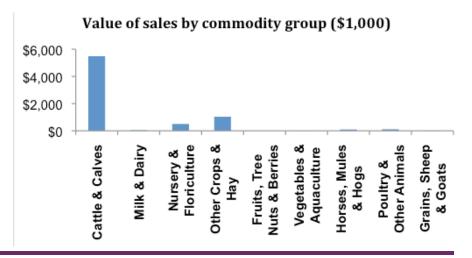
Economic profile (2007)	
Total sales - Crops - Livestock - Average per farm	(D) (D) (D) (D)
Government payments - Average per farm	0
Total farm production expenses - Average per farm	\$74,000 \$10,561
Net farm income of operation - Average per farm Median net cash farm income	-\$70,000 -\$9,944 -\$8,500

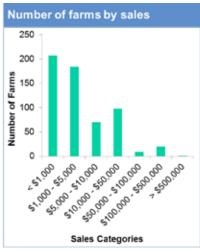
Number of Farms	7
Land in Farms	9 acres
Median Size of Farm	1 acre

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	4
Other	3
Average age of principal operator (years)	0
All operators by race:	
American Indian or Alaska Native	0
Asian	0
Black or African American	0
Native Hawaiian or Other Pacific Islander	0
White	0
More than one race	0
All operators of Spanish, Hispanic, or Latino Origin	0

²⁷ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

MORA COUNTY LOCAL FOOD SYSTEM DATA 28





Economic profile (2007)	
Total sales - Crops (24%) - Livestock (76%) - Average per farm	\$7,564,000 \$1,811,000 \$5,753,000 \$12,843
Government payments - Average per farm	\$330,000 \$11,007
Total farm production expenses - Average per farm	\$10,321,000 \$17,523
Net farm income of operation - Average per farm Median net cash farm income	-\$1,711,000 -\$2,906 -\$2,310

Number of Farms	589
Land in Farms	914,549 acres
Median Size of Farm	1,553 acres

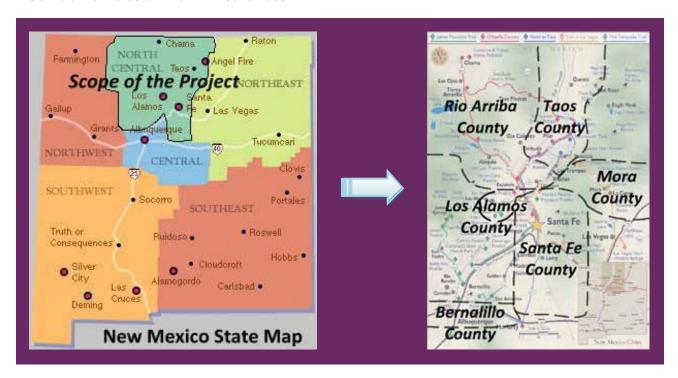
Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	227
Other	362
Average age of principal operator (years)	59.5
All operators by race:	
American Indian or Alaska Native	17
Asian	-
Black or African American	2
Native Hawaiian or Other Pacific Islander	-
White	843
More than one race	6
All operators of Spanish, Hispanic, or Latino Origin	670

²⁸ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

4. LOCAL AGRICULTURAL DATA & FOOD SYSTEM PROFILES

New Mexico has a rich cultural and economic history in agriculture going back literally thousands of years. This study focuses on six counties in Northern New Mexico: Bernalillo, Santa Fe, Rio Arriba, Taos, Mora and Los Alamos. While agricultural activity throughout the state is vital and study findings are meant to benefit the entire region, these counties are the geographic focus.

FIGURE: SPECIFIC COUNTIES IN PROJECT SCOPE



While these counties share similar regional characteristics, they also diverge broadly across socio-economic factors and agricultural conditions. With the exception of Los Alamos, the counties experience greater than 10% of the population living in poverty (as of 2008). Rural population is high: 100% in Mora, greater than half in Taos and Rio Arriba, and a quarter in Santa Fe. Summary data is below.

County	Population (2009)	% of rural pop. (2009)	Median income (2008)	% of pop. below poverty line (2008)
Santa Fe	147,532	25%	\$55,000	12.3%
Rio Arriba	40,678	57%	\$38,578	17.2%
Taos	31,507	60%	\$36,414	18.1%
Los Alamos	18,074	12%	\$102,602	3.1%
Mora	4,935	100%	\$28,962	25.4%

These counties cover broad agricultural factors. There is great disparity in the number of farms per county, market value of products sold, median farm size and top commodity groups. Bernalillo and Los Alamos are considered outliers. Bernalillo is regarded as a destination outlet market for sales. The climate, land, and land use is very different. Los Alamos is a relatively better off. It only has seven small hobby farms. Analysis of local food system profiles focus on four "producer counties" – Santa Fe, Rio Arriba, Taos, and Mora.

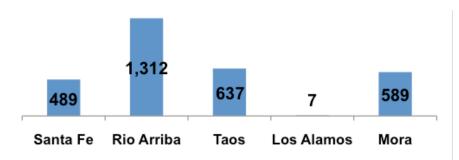
FIGURE: AGRICULTURAL OVERVIEW BY COUNTY 30

County	# of farms	Market value of products sold (\$000)	Median farm size (acres)		Top commodity groups (by quantity)
				1.	Nursery, greenhouse, & floriculture
Santa Fe	489	12,614	17	2.	Cattle & calves
				3.	Other animal & associated products
				4.	Cattle & calves
Rio Arriba	1,312	12,763	30	5.	Other crops & hay
				6.	Fruits, tree nuts, & berries
				7.	Cattle & calves
Taos	637	5,992	27	8.	Other crops & hay
				9.	Nursery, greenhouse, & floriculture
Los Alamos	7	N/A	1		N/A
		_	<u> </u>	10.	Cattle & calves
Mora	589	7,564	140	11.	Other crops & hay
				12.	Nursery, greenhouse, & floriculture

²⁹ Data from "New Mexico data sets." U.S. Census Bureau: State and County QuickFacts. U.S. Census Bureau, 16 Aug. 2010. http://quickfacts.census.gov/qfd/ states/35000.html. and City-Data.com. www.city-data.com.

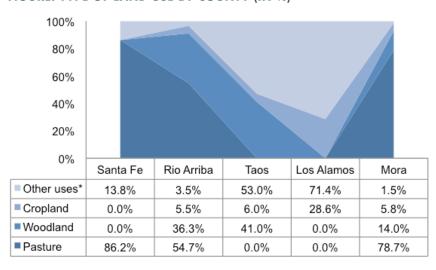
³⁰ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. D.C.: 2009.

FIGURE: NUMBER OF FARMS BY COUNTY 31



As the data shows, Rio Arriba has the highest number of farms, but does not have the highest total market value of products sold. The county with the highest total market value of products sold was Bernalillo (in 2007).

FIGURE: TYPE OF LAND USE BY COUNTY (IN %) 32

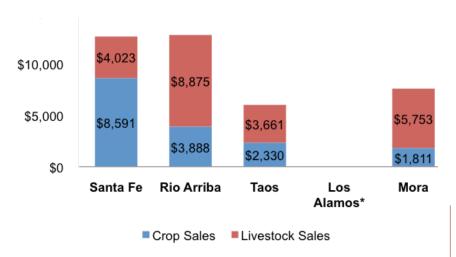


LAND USE BY COUNTY ANALYSIS YIELDS SEVERAL FINDINGS:

- Overall, the majority of land use in Santa Fe and Mora was for pasture (86% and 79% respectively)
- Rio Arriba had approximately half of its land dedicated to pasture (55%) and 36% to woodland
- Taos dedicated 41% to woodland the majority of the rest to other uses

*Note: 1. Bernalillo, Santa Fe and Rio Arriba listed 3.3%, 13.8%, and 3.5% as "other uses." Taos listed "N/A" for 53% of land use. Los Alamos listed 71.4% of land for farmsteads, buildings, livestock facilities, etc.

FIGURE: VALUE OF SALES BY CROP OR LIVESTOCK (IN \$000S) 33



*Note: Withheld to avoid disclosing data for individual farms

This figure shows that Rio Arriba, Taos, and Mora all derive majority of value of sales via livestock. Santa Fe, on the other hand, has the majority of its value of sales from crops (mainly nursery and floriculture). This does not directly correspond to the land use data. This is likely because land marked for different uses has varied uses. Additionally, livestock value versus crops varies by county and by product. Farm scale and availability of infrastructure distribution channels greatly impacts sales.

31 ibid

³² USDA and National Agricultural Statistics
 Service. 2007 Census of Agriculture: New
 Mexico State and County Data. DC, 2009.
 ³³ ibid

The figure below summarizes the number of heads and value of sales of four livestock groups in Northern New Mexico – cattle and calves, dairy, layers, and horses / ponies. For each group, value of sales divided by number of heads shows livestock group sales vary by county. Dairy is the livestock group yielding greatest value of sales per head. Cattle and calves generate higher sales per head in Santa Fe than the other counties. The gap of value between Santa Fe and Rio Arriba is about \$340 / head. Bernalillo gains the greatest sales values via livestock (\$11,997) given its urban center, followed by Rio Arriba (\$8,875) and Mora (\$5,753). This is impacted by weather, access to markets, volumes, cost of feed and other factors.

FIGURE:	VALUE	OF	SALES I	PER	HEAD	BY	COMMODITY	GROUP 34
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	Santa Fe	Rio Arriba	Taos	Mora
Cattle & Calves				
Value of sales	\$3,053,000	\$7,910,000	\$2,878,000	\$5,490,000
Number of heads	3871	17647	5153	9893
Value of sales per head	\$789	\$448	\$559	\$555
Dairy				
Value of sales	\$66,000	(D)	\$24,000	\$42,000
Number of heads	22	5	8	17
Value of sales per head	\$3,000	(D)	\$3,000	\$2,471
Layers				
Value of sales	\$97,000	\$108,000	\$21,000	\$19,000
Number of heads	2300	3040	818	822
Value of sales per head	\$42	\$36	\$26	\$23
Horses & Ponies				
Value of sales	\$260,000	\$138,000	\$114,000	\$94,000
Number of heads	1646	3202	1913	1273
Value of sales per head	\$158	\$43	\$60	\$74

³⁴ Information of Los Alamos county was unavailable or withheld avoid disclosing data for individual farms



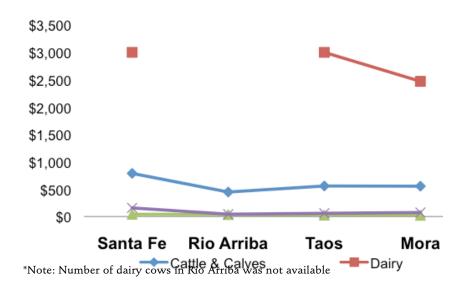
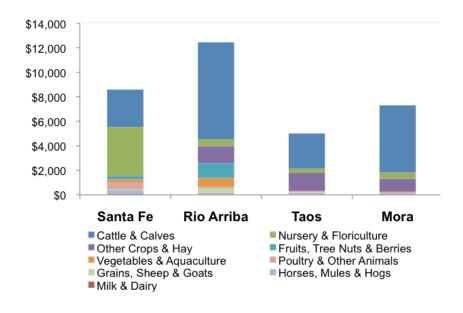


FIGURE: VALUE OF SALES BY COMMODITY BY COUNTY (IN \$000S) 36



This figure shows cattle, dairy, and floriculture are the highest value commodities. Local industry trends and movement vary greatly. In 2007, Dairy was predicted to have the largest year-to-year increase in net income, with overall demand for dairy strong. Hogs and poultry were projected to have increases, as well.

Net cash for cattle was projected to decrease due to the high cost of feed. Farms specializing in other specialty crops were projected to have minor decreases. Bernalillo, as a destination/end market experienced highest total market value. There is little dairy in Northern NM, so dairy is not a recommendation focus.

³⁵ Information of Los Alamos county was unavailable or withheld avoid disclosing data for individual farms.

³⁶ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

FIGURE: CHANGE IN NET CASH INCOME BY TYPE OF FARM BUSINESS OPERATION, 2007 (EXTRACTED) 37

Commodity specialization	Percentage change in net cash income	Key determinants of change
Other field crops (besides grain, wheat, corn, soybeans, peanuts, cotton, and rice)	-5	Crop receipts forecast to increase by 12 percent. Government payments down by 16 percent. Cash expenses forecast to increase by 11 percent.
Specialty crops	-8	Crop receipts 5 percent higher. Cash expenses 9 percent higher, with fertilizer (20 percent) and fuels (10 percent) increasing more than other expense components.
Beef cattle	-9	Livestock receipts up by 5 percent. Cash expenses 9 percent higher. Feed was the largest expense item increase at 23 percent.
Dairy	116	Livestock receipts up by 37 percent. Cash expenses 14 percent higher. Feed was the largest expense item increase at 23 percent.
Hogs	4	Livestock receipts up by 8 percent. Crop receipts up by 30 percent. Cash expenses 13 percent higher. Feed was the largest expense item increase at 23 percent.
Poultry	10	Livestock receipts up by 23 percent. Cash expenses 11 percent higher. Feed was the largest expense item increase at 23 percent.
Other livestock	-40	Livestock receipts up by 3 percent. Cash expenses 10 percent higher. Feed was the largest expense item increase at 23 percent.

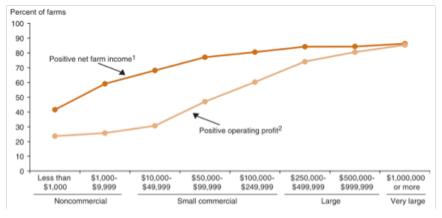
Notes: Farm businesses exclude residential/retirement farms whose operators rely primarily on nonfarm income. Source: USDA, Agricultural Resource Management Survey.

PROFITABILITY DRIVERS

Given the number of small farms in the region, it is important to explore how size of farm impacts profitability.

- ¹ Net farm income = Gross cash receipts + home consumption + imputed value of farm dwelling + net inventory change cash expenses noncash benefits for paid labor depreciation.
- ² Operating profit = Net farm income + interest paid charge for operator and unpaid labor charge for management. Source: ERS calculations based on USDA's 2007 Agricultural Resource Management Survey, Phase III, conducted by the National Agricultural Statistics Service and the Economic Research Service.

FIGURE: NET FARM INCOME AND OPERATING PROFIT, BY GCFI (GROSS CASH FARM INCOME) CLASS, 2007



Profitability, measured by net farm income, is correlated to farm size. Fewer than 50% of small farms with gross cash farm income less than \$1,000 generate positive net farm income. As farm size increases (higher gross cash income), the percentage with positive net income increases gradually. Nearly 80% of Santa Fe, Rio Arriba, Taos, and Mora farms are small-scale (100% in Los Alamos).

³⁷ 12 commodities were in the original table; this report extracted commodity groups most predominant in New Mexico.

FIGURE: FARM BY VALUE OF SALES

Farms by value of sales	Santa Fe	Rio Arriba	Taos	Los Alamos	Mora	Total
< \$1,000 - \$10,000 (Small)	390	1,052	546	7	461	2,456
< \$1,000 - \$10,000 (Sman)	(80%)	(80%)	(86%)	(100%)	(78%)	2,430
\$10,000 - \$100,000	82	245	81	0	107	515
(Medium)	(17%)	(19%)	(13%)	(13%) (0%) (18%)		313
> \$100,000 (Large)	17	15	10	0	21	63
> \$100,000 (Large)	(3%)	(1%)	(2%)	(0%)	(4%)	03
Total	489	1,312	637	7	589	3,034





PEER COMMUNITIES WITH BEST PRACTICES

The following section summarizes some best in class practices occurring across the nation fostering local food economies. Four communities were identified as similar to Northern NM in terms of agriculture and support organizations, for RDC reference to lead NM agriculture forward.

The report looked at major initiatives/programs with the support organizations used to improve local agriculture, and synthesized findings, below. The examples take broad roles with diverse and comprehensive initiatives to enhance local food production. Support organizations adopted marketing/sales strategies, including buy local campaigns and directories of local producers. Infrastructure, policy advocacy, and leadership development are also commonly present to address systemic gaps; technical assistance and capital is available. One support organization has plans to improve the agriculture workforce.



Helena (MT), Burlington (VT), Bellingham (WA), and Boulder (CO) are four peers with prosperous grassroots efforts on sustainable agriculture/local food, and important support efforts. Summaries are provided how each community defines activity and determines relevant agricultural initiatives.

³⁸ USDA and National Agricultural Statistics Service. 2007 Census of Agriculture: New Mexico State and County Data. DC, 2009.

FIGURE: AGRICULTURE INITIATIVES ADOPTED BY PEER COMMUNITIES BY CATEGORY

	Helena, MT	Burlington, VT	Bellingham, WA	Boulder, CO
Technical Assistance	✓		✓	
Support				
Marketing / Sales	✓	✓	✓	✓
Capital Resources	✓			✓
Infrastructure	✓	✓		✓
Workforce				✓
Leadership Development		✓	✓	✓
Policy	✓	✓		✓

Figures below summarize basic facts about the peer communities.
They have similarities with N.NM – similar commodity groups, a regional hub and rural communities with proximity to urban areas.
The local support organizations

are also detailed below.

Successes are grounded with the following characteristics:

- Establish a community respected lead agency / coordinator
- Facilitate multiple levels of participation
- Raise community awareness about local food
- Aggregate capital and political resources

Infrastructure development can be made through (1) identification of insufficiencies and needs by community stakeholders and (2) cross-sector (government, private, and non-profit) collaboration of financing mechanism and policy implementation. There are many successful marketing/sales examples in communities readily customizable for N.NM.

FIGURE: LOCAL DEMOGRAPHIC OVERVIEW OF PEER COMMUNITIES 39

City / State (Support Org.)	Population (2009)	Median income (2008)	% of pop. below poverty line (2008)
Helena, MT (AERO)	29,939	\$44,946	15%
Burlington, VT (Burlington Food Council)	38,647	\$43,127	20%
Bellingham, WA (Sustainable Connections)	80,055	\$37,388	23%
Boulder, CO (Boulder Food & Ag Council)	100,160	\$57,231	19%

³⁹ Aggregated from QuickFacts. US Census Bureau, Aug. 2010. http://quickfacts.census.gov; City-Data.com. www.city-data.com.

FFIGURE: LOCAL AGRICULTURAL OVERVIEW 40

County / State (Support Org.)	# of farms	Market value of products sold (\$000)	Median farm size (acres)		Top commodity groups (by quantity)	
Lewis & Clark,				1.	Cattle & calves	
MT	675	\$32,290	50		Grains, oilseeds, dry beans & peas	
(AERO)				3.	Other crops & hay	
Chittenden, VT				4.	Milk & other dairy products	
(Burlington	591	\$33,622	63	5.	Nursery, greenhouse, & floriculture	
Food Council)					Vegetables, melons, & potatoes	
Whatcom, WA				7.	Milk & other dairy products	
(Sustainable	1,473	\$36,450	20	8.	Fruits, tree nuts, & berries	
Connections)				9.	Cattle & calves	
Boulder, CO		_		10.	Nursery, greenhouse, & floriculture	
(Boulder Food 746		\$34,037	30	11.	Other crops & hay	
& Ag Council)				12.	Cattle & calves	

HELENA, MT – ALTERNATIVE ENERGY RESOURCES ORGANIZATION (AERO) 41

SUMMARY

AERO is a grassroots non-profit organization in Helena, Montana promoting resource conservation and local economic vitality. It was initially founded to promote local solutions to non-renewable energy sources during the 1970s' energy crisis and later expanded to advance sustainable agriculture and environmental quality as well. AERO's vision of its Sustainable Agricultural program is "for owner-operated, family-sized farms to thrive and for locally-owned, value-added enterprises to revitalize our communities." It hopes to give local grain farmers and ranchers access to locally-owned processing facilities, more marketing options, diverse distributional channels and customer groups.

PROBLEM

A barrier to Montana's local food system is the lack of livestock processing facilities. Although Montana has a huge cattle industry, the state's few slaughter facilities can only process a relatively small number of cattle and calves. The processing issue also applies to poultry – small poultry growers have to sell their birds' "live weight" directly to consumers. In general, about 86% of the state's agricultural products have to be shipped out of state for processing.

⁴⁰ USDA & National Agricultural Statistics Service. 2007 Census of Agriculture: NM State and County Data. Wash, D.C.: USDA, 2009.

⁴¹ "Local Food & Sustainable Agriculture." Alternative Energy Resources Organization. www.aeromt.org/food-ag; "Mobile Processing Unit." Montana Poultry Growers Cooperative. www.chicken.coop/mobile-processing-unit.

SOLUTIONS

As the awareness of local food production increases, AERO, Farms for Families, Mission Mountain, and the Montana Poultry Growers Cooperative teamed up to develop a "mobile processing unit," which is a processing facility on wheels, to help small volume farmers process their birds without costly out-of-state transportation costs. The mobile processing unit, which is composed of a truck and trailer, has the capacity to process 50-300 birds per day depending on the grower's experience processing poultry. This collaborative project provides small poultry growers training and educational manuals about government regulations, standard and safe processing procedures, and packaging instructions for sale. The mobile processing facility increased production across Montana.

OTHER INITIATIVES

In addition to the mobile processing unit, other efforts by AERO to promote local food production includes:

- TECHNICAL ASSISTANCE SUPPORT: To advance sustainable farming, AERO works with Natural Resources and Conservation Service (NRCS) to offer education training for farmers to learn more about organic production, and holds organic risk management workshops with Montana St. U. to teach field staff about organic farming.
- MARKETING / SALES: AERO has been part of the "Buy Fresh, Buy Local" campaign network and developed a state-wide effort to promote local food consumption. To advance a strong local system, AERO hosted sustainable farm and ranch tours to raise awareness and networking opportunities. It also developed a directory for consumers "Abundant Montana" with information on sustainable growers and processors.
- **CAPITAL:** It supports efforts through grants and provides communities with TA to start farmers' markets.
- POLICY: As a partner with the Montana policy coalition
 Grow Montana, AERO worked to remove policy barriers to
 processing, distribution, and trade of locally-grown food and
 markets.

IMPACTS

The innovative facility helped the USDA face possibly adjusting processing regulations and monitoring mechanisms, as the existing

ones were designed for large facilities. Once the relevant government agencies figure out how to regulate and provide oversight to small-scale processing operations, these techniques can benefit more local growers and products.

BURLINGTON, VT - BURLINGTON FOOD COUNCIL & BURLINGTON SCHOOL FOOD PROJECT 42

SUMMARY

The Burlington Food Council (BFC) is a non-profit community group composed of farmers, teachers, educators, advocates, nutritionists, and other professionals, whose aim is to build food knowledge, facilitate food access, and establish local food systems.

PROBLEM

Childhood obesity and its related illnesses is a critical local issue. More than 25% of children in Vermont were overweight or at risk in 2004. School meals serve as a main nutrition source for many, and are the only opportunity for low-income students to eat fresh fruits and vegetables. The Burlington School Food Project (BSFP) was established with a USDA Community Food Project Grant in 2003 to integrate local foods into school meals and reduce food insecurity for Burlington students.

SOLUTIONS

BFC and BSFP worked together on:

- MARKETING / SALES: increased visibility of farm-food-nutrition issues through branding and a consistent message / logo (the "Three C's" community, classroom, and cafeteria). The district-wide effort employed a coordinator. The program purchased local food from local growers, distributors, and CSAs.
- **INFRASTRUCTURE:** BFC advocated for government support on infrastructure to get local food in schools and enhance nutrition education such as school district processing facilities, kitchens, and staff training.
- LEADERSHIP DEVELOPMENT: Through frequent town
 meetings, taste tests, special events, and dinners. BFC and
 BSFP successfully facilitated multiple levels of participation
 and cooperation with increasing attentions from farmers,
 students, school administration, food service, and others in the
 community.

⁴² Burlington Food Council.
http://burlingtonfoodcouncil.org;
"VT: Burlington School Food Project, a recipe
for school and community integration."
The Center for Public Education. Oct. 2007.
www.centerforpubliceducation.org/site/c.
MXIINOJWE/b.5258247/k.8765 VT_Burlington_School_Food_Project_a_recipe_for_
school_and_community_integration.htm>;
Burlington School Food Project Evaluation
Report: http://crs.uvm.edu/evaluation/bsfp_execsumm06.pdf.



• POLICY: BFC led the School Food Action Plan and the Community Food Assessment with strategic recommendations for the Burlington School District, and both were adopted by the Burlington School Board. The Wellness and Nutrition Policy (Act 161) and the Farm to School Policy (Act 145) were shaped by BFC/BSFP and approved by Vermont's Legislature for healthy local food systems.

IMPACTS

From 2003-2006, BSFP/BFC served 11 schools and successfully raised children's awareness of healthy food and engagement in local food, implemented food action plans, advocated for policy changes, and united stakeholders in an effective partnership. It has been nationally recognized as a model farm-to-school program.

BELLINGHAM, WA - SUSTAINABLE CONNECTIONS 43

SUMMARY

Sustainable Connections is a non-profit organization in Bellingham that works with local businesses and residents to promote sustainable economic development. Its program areas include: Food and Farming, Green Building, Green Power Community Challenge, Sustainable Business Development, and Think Local First.

PROBLEM

To increase market demand and competitiveness of locally-produced agricultural products, the Food & Farming program "informs, empowers and provides resources to producers and buyers; makes connections between farmers, institutions, retailers, and restaurants; and raises public awareness and support of local farms and eating local."

SOLUTIONS

- **TECHNICAL ASSISTANCE SUPPORT:** It offers business education and agricultural mentorship for new farmers.
- MARKETING / SALES: It holds "Eat Local (Every) Week" campaign which features restaurants offering menu selections local offerings; develops the "Whatcom Food & Farm Finder," a publication with 30,000 copies of the area's guide and map; and holds community events and tours regularly. Other media promotion includes an e-newsletter, a wholesale directory linking consumers with local producers, and online resources for local producers.

⁴³ Sustainable Connections. Oct. 2010. http://sustainableconnections.org.

• **LEADERSHIP DEVELOPMENT:** To build a resilient food system, SC invites food producers and community members to serve on the advisory committees; creates business-to-business trade relationships; and fosters cross-sector collaboration between farmers' markets, food banks, and academic institutions.

IMPACTS

The various efforts of Sustainable Connections have been recognized by the NW Washington community. It was selected as a favorite non-profit organization by local residents; received an Environmental Business Hero award; and highlighted as the most important development organization by the Mayor.

BOULDER, CO – BOULDER COUNTY FOOD AND AGRICULTURE POLICY COUNCIL 44

SUMMARY

The Boulder County Food and Agriculture Policy Council (FAPC) was established by Boulder County Commissioners to promote a local food system that advances local social, economic, and environmental benefits through research, education, and policy advocacy.

SOLUTIONS

From its strategic plan 2009-2012, several goals advance the local food system:

- MARKETING / SALES: Create public databases of local producers and processors engaging in sustainable farming; survey and examine institutions regarding demand for local foods.
- CAPITAL: Research economic incentives for sustainable farming practices, processing, and fossil fuel reduction – examples include changes to property taxes, development granting, rewards, worker benefit programs, and consumer purchase incentives.
- **INFRASTRUCTURE:** Explore increases in food production on county open space; assess amount and type of food processing facilities and barriers in the county.
- **WORKFORCE:** Research existing policies on housing, immigration, & insurance benefits for laborers.
- LEADERSHIP DEVELOPMENT: Hold a community forum on local food and agriculture twice a year to encourage civil participation and leadership development; establish an open mechanism for soliciting ongoing communication from Boulder residents.

⁴⁴ Boulder County Food and Agriculture Policy Council. www.bouldercounty.org/openspace/ advisory/fapc.htm.

 POLICY: Formulate policy and other system improvement recommendations regarding economic viability of agriculture, local food production, safe working conditions for agricultural laborers, and conservation of natural resources; partner with county to integrate food and agriculture into zoning code revisions.

6. CASE STUDIES OF LOCAL FOOD INITIATIVES

Local food production is a trend across the nation, and many non-profit organizations and social businesses are advancing this movement. There are 100's of initiatives nation-wide. Six cases widely recognized are cited here with topics corresponding to N.NM's - processing, distribution, funding, and marketing/sales channels.

These cases demonstrate several takeaways.

- Offering economic incentives: loans, grants, tax exemptions / credits are effective to encourage local sustainable agriculture initiatives
- Technological advances allows enhancements more convenient and better fit for local infrastructure
- Value chain specializations maximize operating efficiency, without the need for massive capital

FIGURE: CASE STUDIES OF LOCAL FOOD INITIATIVES BY CATEGORY

	Holton Farms	Veritable Vegetable	Revolutio n Foods	New N. FL Coop.	TEAM Santa Rosa	Penn. FFFI
Technical Assistance						
Support						
Marketing / Sales	✓		✓	✓		
Capital Resources					✓	✓
Infrastructure	✓	✓		✓		
Workforce						
Leadership Development						
Policy						✓

Highlighted cases were selected for their range of issues from community-supported agriculture programs with mobile distribution facilities in Vermont/ New York City, community distributor of organic produce and school cafeterias in California, farm-to-school initiatives and funding liaisons for agricultural initiatives in Florida, to food retailer financing initiative in Pennsylvania. The innovations in each case are summarized below.

HOLTON FARMS, VT - MOBILE CSA FARM IN NEW YORK CITY 45

INTRO

Holton Farms is a community supported agriculture (CSA) farm in Westminster, Vermont. Community-supported agriculture (CSA) is a direct distribution model where consumers share risks and benefits of farm production with the growers via membership. CSAs

typically have weekly pick-up or delivery. This direct sales channel provides farmers with working capital in advance and reduce the marketing burden. ⁴⁶

INNOVATIONS

Holton Farms provides a "CSA Select" mechanism as their competitive advantage. This differs from traditional CSAs where member consumers have little or no say in what they receive weekly. Members have flexibility in ordering what and when they want. With ten farms in Southern Vermont, Holton Farms offers 100 different products. Another progressive concept is the "Farm Truck," which brings fresh produce straight from Vermont to New York City, serviced by smiling Holton Farms employees dancing to happy reggae beats, its sells to non-CSA members.



The truck has about 25 pickup locations in NYC. Other sales channels include farm stands in Vermont; Greenmarket Farmers Markets and restaurants/wholesalers in NYC; and small groceries and supermarkets throughout Vermont, New Hampshire, Massachusetts and New York. Through these diverse channels, Holton Farms brings affordable and fresh food to underserved neighborhoods in NYC. It also accepts food stamps and discounts its prices by 20% for lower-income people.

VERITABLE VEGETABLE, CA – COMMUNITY DISTRIBUTOR OF CERTIFIED ORGANIC PRODUCE 47

INTRO

Veritable Vegetable (VV) is the oldest distributor of certified organic produce in the U.S. It was part of a movement in early 1970s to bring low-cost and nutritious food to neighborhood coops and community storefronts in the greater San Francisco Bay Area. Seeing the demand for organized supply chains to procure or deliver fresh and locally-grown foods, VV established relationships with small-and mid-sized farmers struggling to distribute by themselves.

INNOVATIONS

As a wholesale produce distributor, VV serves growers and retailers. Its purchasing department works with 300+ local growers to broker comprehensive and diverse organic produce and collaborates with salespeople to provide market and price information to customers. It picks-up produce from multiple farmers and shippers via its fleet of



⁴⁵ Holton Farms. www.holtonfarms.com.

^{46 &}quot;Introduction of Community Supported Agriculture." National Agricultural Library. USDA www.nal.usda.gov/afsic/pubs/csa/csa.shtml.

⁴⁷ Veritable Vegetable.
www.veritablevegetable.com
"Veritable Vegetable." Sacramento Natural
Foods Co-op. www.sacfoodcoop.com /index.
php?option=com_content&view=article&id=4
30%3Averitablevegetable&catid=33%3Alocalgrowersmain-content=us&Itemid=95.

trucks, transports those goods to centralized warehouse for storage, and either re-sells goods to retailers, restaurants, and other regional distributors, or ships to other regions. The integration of transport and warehouses (operating 24 hours a day) distinguishes VV, enabling it to control reliable pick-ups/arrivals and ensure accurate orders. The company is committed to integrate green technologies into operation for sustainability. It installed 560 solar panels on the main warehouse in 2009, reducing grid energy demand by 40%.

IMPACTS

To date, Veritable Vegetable has supplied more than 6,000 items, served 1,000+ farms in California, and distributed produce to states including Hawaii, New Mexico, Arizona, Colorado and Nevada. It was awarded the Steward of Sustainable Agriculture Award at the Eco-Farm Conference, City of San Francisco Environmental Achievement Award, Spirit of Organics Award, and the Cliff Adler Heart in Business Award.

REVOLUTION FOODS, CA – LOCAL INGREDIENTS IN SCHOOL MEALS 48

INTRO

Revolution Foods is a social enterprise founded by Kristin Richmond and Kirsten Tobey in 2006 to support healthier school meals and nutrition education in the greater Bay Area. The federal nutrition guidelines require subsidized school meals to meet criteria on calories and fat, but they do not require school meals to be whole, local, and nutritious to eat. School meal programs do little to curb increasing child obesity rate or help food production in local communities.

INNOVATIONS

Revolution Foods adopts higher standards than the federal nutrition guidelines for school meal programs – meals are prepared fresh daily free of artificial preservatives, colors, flavors and sweeteners. The business also uses organic and locally grown food as much as possible. It establishes a broad network of healthy food suppliers including Whole Foods Market, Organic Valley, Niman Ranch, and local farmers. The two founders expect Revolution Foods will bring both individual changes in child obesity reduction and systematic changes in the federal child nutrition programs.⁴⁹ Ms. Richmond and Ms. Tobey hope to see the federal government

⁴⁸ Revolution Foods. www.revfoods.com/browse/home.

⁴⁹ Federal child nutrition programs include School Breakfast, National School Lunch, Afterschool Snacks, and Summer Food Service.

target new reimbursements to schools that use fresh, healthy, and local ingredients to make meals.

IMPACTS

Since inception, Revolution Foods has served more than \$3.5 million meals and reached 40,000 students (mostly low-income). It has expanded operations to Southern California, Colorado, and Washington DC. Schools benefit from Revolution Foods higher attention levels in class, fewer disciplinary problems, increasing interests in healthy food, and student weight loss. In addition to social impact, the business generates environmental benefits (i.e. using energy efficient insulated food storage units and recycled materials) and community involvement (i.e. local economy, education, and employing local residents).

NEW NORTH FLORIDA COOPERATIVE, FL – SUSTAINABLE FARM-TO-SCHOOL PROGRAM 50

INTRO

The New North Florida Cooperative (NNFC) was form in 1995 by small-scale vegetable and fruit famers to aggregate sales, provide marketing, and offer training to participating farmers to serve local schools. The goal of NNFC is to increase sales volume to raise incomes for farmers. When the organization began, the canned and frozen greens markets were filled, so NNFC decided to sell fresh and value-added products by washing, chopping, and bagging to be "ready-for-the-pot." Value-added processing has given NNFC access to a niche market where consumers look for convenience and enabled NNFC to differentiate itself.

INNOVATIONS

NNFC's primary crops are collards, field peas, grapes and turnip greens. The co-op focuses on three to four items each season and sells to schools year-around. Products are delivered every two or three days depending on school menus. To ensure product high quality, NNFC built strong infrastructure equipped with a processing shed, a cutting and chopping machine, wash sinks, refrigerated trucks, cold storage systems, and insulation. Co-op members go out on product deliveries. The co- also serves as an intermediary to negotiate fair price for both school districts and growers. Profits are re-invested into infrastructure and marketing for improvements and sales opportunities for more than 100 members.

^{50 &}quot;New North Florida Cooperative Farm to School Program." National Farm to School Network . www.farmtoschool.org/stateprograms.php?action=detail&id=23&pid=32; Holmes, Glyen, Vonda Richardson, and Dan Schofer. "Taking it to the next level: success of small Florida vegetable co-op leads to a network of similar cooperatives." Rural Cooperatives.

IMPACTS

With the reputation for high-quality produce, prompt deliveries, fair prices, and courteous service, NNFC expanded operation from 13 schools in one county to 15 school districts in three counties (reaching 300,000 students) over six years. NNFC collaborated with other co-ops to develop the Small Farmer Distribution Network, providing marketing, education, process, and transportation to other co-ops in the region.

TEAM SANTA ROSA ECONOMIC DEVELOPMENT COUNCIL INC., FL – FUNDING LIAISON FOR AGRICULTURE INITIATIVES 51

INTRO

TEAM Santa Rosa Economic Development Council Inc. in Florida is a portal to serve and support industries in Santa Rosa County, with a focus on agribusiness. Its goal is to advance economic development of the county through growth of a balanced and sustainable local economy. Generally, TEAM Santa Rosa offers financial incentives –tax exemptions and credits, loan programs, to workforce training and assistance through development permitting – to companies that relocate to Northwest Florida. It also helps local businesses understand and connect to state development incentives and grants.

INNOVATIONS

In terms of agribusiness, initiatives include alternative agriculture, agri-tourism, bio energy, rural development planning, research, networking, and the Panhandle Fresh Marketing Association. For example, TEAM Santa Rosa used a \$175,000 USDA Rural Business Enterprise Grant (RBEG) to set up a revolving loan fund to finance the Panhandle Fresh Marketing Association, a local effort that assists farmers in pooling resources and accessing larger markets in the produce industry. This financing helps farmers transition to crops (i.e. peppers, squash and watermelons) yielding higher profits, and creates opportunities for selling to local markets.

IMPACTS

TEAM Santa Rosa facilitated approximately \$150 million in capital investment in 2009, and created a total of \$82.5 million economic impact to Santa Rosa County from 2006 to 2010. In 2010, it received \$1.3 million in grants for land acquisition, planning and construction, research projects, and agribusiness expansion.

⁵¹ TEAM Santa Rosa Economic Development Council Inc. www.teamsantarosa.com; "Florida Food Hub Ready to Flourish with USDA Support." Know Your Farmer Know Your Food. USDA, 3 Aug. 2010. http://kyf.blogs.usda. gov/category/regional-food-hub/.

PENNSYLVANIA FRESH FOOD FINANCING INITIATIVE, PA – STATEWIDE FINANCING PROGRAM FOR FOOD RETAILERS 52

INTRO

Pennsylvania Fresh Food Financing Initiative (FFFI) is a public-private partnership of The Food Trust, The Reinvestment Fund, and Urban Affairs Coalition ⁵³ in 2004 to encourage food retail in underserved communities. Initiative objectives reduce diet-related diseases by providing healthy food; decrease financing obstacles and operating barriers for food retailers in poor communities; stimulate private investments for employment.

INNOVATIONS

FFFI provides food retailers operating in low-income communities with finance infrastructure are not met by conventional financial institutions. Its model consists of three important strategies – policy advocacy, capital leverage, and market analysis. The advocacy of The Food Trust along with the support of three State Representatives first led to \$30 million allocation from the state government to establish and run FFFI. The Reinvestment Fund leveraged these funds with private sources for a \$120.6 million financing pool. The lending expertise enables FFFI to optimize financing promptly and introduce new capital to meet operators' needs. ⁵⁴

Simultaneously, The Food Trust promotes the initiative with food retail developers and communities statewide. It conducts market analyses to identify untapped opportunities. Urban Affairs Coalition facilitates contracting opportunities for minority and disadvantaged groups.

IMPACTS

As of June 2010, FFFI approved more than \$73.2 million loans and \$12.1 million grants, developing 83 supermarkets and fresh food outlets in poor communities across Pennsylvania and providing 400,000 residents with healthy food access while creating/retaining nearly 5,000 jobs. The original \$30 million of state seed money has generated projects totaling \$190 million. FFFI has been widely recognized as a model for food retail finance in underserved communities, and further facilitated a policy creation at the federal level.

- 52 "Pennsylvania Fresh Food Financing Initiative." The Food Trust. www.thefoodtrust.org/php/programs/fffi.php; "A Healthy Food Financing Initiative: An Innovative Approach to Improve Health and Spark Economic Development." The Reinvestment Fund. www.trfund.com/financing/realestate/HealthyFoodFinancing_2_17_10.pdf; "Pennsylvania Fresh Food Financing Initiative." The Reinvestment Fund. www.trfund.com/resource/downloads/Fresh_Food_Financing_Initiative_Comprehensive.pdf.
- 53 The Food Trust (www.thefoodtrust.org) is an NGO that aims to improve access to healthy, affordable food and to educate children and families about nutrition; Reinvestment Fund (www.trfund.com) is a CDFI (community development financing institution) in Greater Philadelphia; Urban Affairs Coalition (www. gpuac.org) is an NGO that creates opportunities for minority workers.
- 54 According to TRF, FFFI has four components: banksyndicated supermarket loan fund, federal New Market Tax Credits (NMTC), TRF's Core Loan Fund, and direct grants to operators/developers. TRF works with applicants to determine which funds best fits needs.

7. THEORETICAL METHODOLOGIES

GUIDING FRAMEWORK

This report leveraged existing research and expert opinions to advance documentation of N.NM agriculture. Study steps are in the figure below.

Key data sources

Synthesis

Recommendations

Current state
assessment

Long list of
recommendations

Current state
assessment

Value chain
Actionable recommendations

Primary research
(stakeholder interviews):
NGOs
Government entities
Foundations
Agricultural business
owners
Industry experts

Synthesis

Recommendations

Long list of
recommendations
(vetted by commendations
(vetted by community)

Actionable recommendations
(vetted by community)

FIGURE: STUDY METHODOLOGY 55

The first step was to conduct desk research of international and national frameworks, as well as compile local information. The next step was to synthesize data using several techniques. A view of the current environment is presented by county and in aggregate in the other appendices. Major sector trends were identified, including strengths, opportunities and market dynamics (Appendices 5 and 6).

A list of potential section recommendations was developed (Appendix 8 and consolidated in the report). These recommendations were vetted by industry stakeholders and assessed for feasibility, cost and impact. A final short list of actionable recommendations was developed with community input. Based on local stated needs, community need, national research and best practices, an action plan for implementation was conceived.

55 MEDA. www.meda.org/web/publications/ 337-program-design-for-value-chain-initiativesmarket-development-toolkit

VALUE CHAIN METHODOLOGY

To further leverage industry best practices, this report adapted value chain methodology. The most prevalent rubric was developed by USAID and partner organizations, defined as follows: ⁵⁶

⁵⁶ This figure has been adapted from sources including KATALYST, the Springfield Centre for Business in Development, Alexandra Miehlbradt and Mary McVay, Action for Enterprise and the SEEP Network.

Value chains refer to the network of enterprises that buy and sell to one another in order to supply a particular set of products and services to a particular group of consumers. Value Chain Analysis (VCA) is the key tool used by practitioners in the design process for market development programs and captures the dynamics of the market with identification or relevant market opportunities. Issues to consider can be organized into the following framework or value chain structure (below)

FIGURE: VALUE CHAIN FRAMEWORK **Business Enabling / Business** Performance Environment ②cultural / social Value Chain Relationships Value End Whole-Retailers Market Producers Chain **Support Products** & Services

The structure incorporates consideration of several specific components and interactions with each other:

- ENABLING/BUSINESS ENVIRONMENT: Considerations of business environment including policies, institutions and operating context for the local industry. Socio-economic context, including socioeconomic, political, gender, physical, environmental issues and level of government support.
- VALUE CHAIN RELATIONSHIPS: Structure, business relationships
 and linkages of the value chain. The assessment factors are
 whether these relationships facilitate transfer of information,
 product designs, credit, technology or other support products and
 services. Additionally, there is consideration of whether these
 companies collaborate to compete and to what extent.
- SUPPORT PRODUCT & SERVICE MARKETS: Includes the critical support products and services purchased by the businesses in the value chain that help them grow their business. Assessments include how these items are accessed and purchased.

- BUSINESS PERFORMANCE: Includes how the various businesses upgrade at the enterprise level, their capacity and willingness to grow. Additionally, considerations of financial and operational efficiency and performance are conducted.
- END MARKET: End consumers, trends and market opportunities in final markets. Assessment of competitiveness of final markets and differentiation of players. Consideration of value chain strategic positioning to play in these markets

This value chain mapping generates a number of illustrative results:

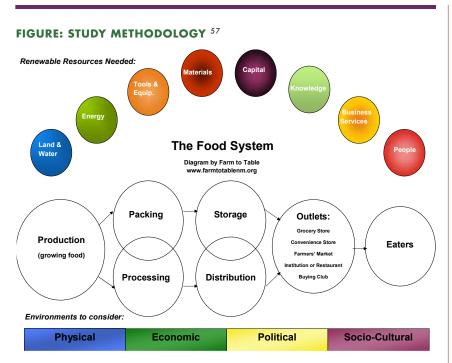
- Provides an overall picture of agriculture in Northern NM and where the greatest challenges lay.
- Maps specific products, how they move in the community and where they need assistance.
- Clarifies strengths and weaknesses in the community, where attention is already being paid, by whom and there are still gaps.

From this charting of Northern NM value chains in agriculture, the following conclusions are drawn:

- Infrastructure is lacking, with high costs and barriers to getting products readily to local markets
- Financing is fragmented and sources identified are considered insufficient to finance value added efforts or significant changes to higher yielding opportunities like anti-frost equipment or greenhouses.
- The high end market is small, fragmented and difficult to access. The low end market isn't affordable for most local farmers.
- Many farmers do not extensively review the marketplace with decisions based upon market response; history, culture, and tradition are significant factors in farming activity; many farmers' behaviour value triple bottom line efforts including environmental stewardship and community, rather than just economic maximization.

NORTHERN NM AGRICULTURAL STAKEHOLDER MAP

Two key assets of our local food system are a long history of agriculture and a core group of committed people. Those advancing local food security are part of a larger national and even international movement to produce, access, secure and consume healthy and nutritious food while honoring local traditions, customs, and culture.



The figure on the left illustrates how one might consider the entire agricultural system as a whole system, inclusive of physical, economic, political and socio-cultural components.

*Note: Inputs are not included is because (a) they're regarded as part of production and/or (b) they're regarded as some resources needed at the top of the value chain.

From a review of mapping of the community and the cluster from factors including those above, the following conclusions are highlighted that contributing factors are important enablers to a healthy cluster:

- Policy local and state laws that benefit small holder farmers
- Local economy tourism and wealthier people in Los
 Alamos, Santa Fe and Bernalillo Counties better able to afford
 products from the other counties
- Natural resources allocation, use, and management especially for public lands for ranchers and water rights through the acequia collective systems.

Robin Seydel from La Montanita Co-op captures this, saying:

"There are promising new opportunities providing food responsibly, locally and without loss of quality. We are working both within the current agricultural & economic system and creating a new system at the same time."

This cluster is working within service area value chains, product value chains and as a whole system.

⁵⁷ Food System Diagram. Chart. Farm to Table. PDF file.

POLICY Pelevel gre, Conveniency Green org. Charleso pf Charleso pf

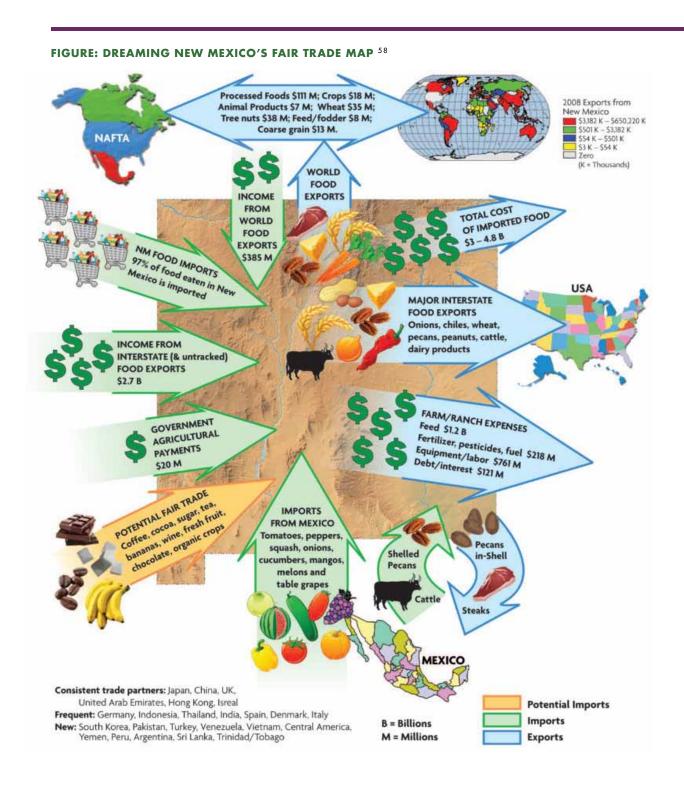
FIGURE: UNIVERSAL LANDSCAPE FOR N.NM AGRICULTURE

Another filter for analysis is a landscape map of those components that 'feed' the cluster. Based upon broad assessments formed from review of local literature and community interviews, a picture emerged of the local 'eco-system' of the food system – the stakeholders and players. The strengths and weaknesses, pluses and minuses, opportunities and threats were assessed to form the image above. This is not a scientific presentation of data, but rather an informed picture of reasonableness, which can evolve and change as the sector changes and/or new information comes to the fore.

The observation here is that there are strengths in local knowledge and available inputs. There is weak distribution due to volume, distances, and seasons. The other factors are fair with some efforts and stability, but needs in each of them and room for improvement.

NM FAIR TRADE MAP

Another activity to inform current status was to view an actual map to overlay data to understand the cluster. The following figure created by Dreaming New Mexico visualizes movement of food/food products and food-related cash. Despite local production, NM is a heavy importer. Almost all food (by volume, weight) consumed in NM is imported. The map echoes the problem of low local food consumption identified – people desire fresh vegetables and fruits imported rather than local canned, frozen, dried or stored foods.



⁵⁷ "Fair Trade." Dreaming New Mexico. N.p., n.d. Web. 13 Dec. 2010. http://www.dreamingnewmexico.org/food/ff-fair-trade.

As stated in Dreaming New Mexico report: 59

Map shows the movement of food/food products and food-related cash in and out of the State. At bottom: the back-and-forth trade with Mexico of beef and pecans; and the major food imports from Mexico. Most of Mexico's organic output comes to the US, including New Mexico. On lower left are Fair Trade foods coming into New Mexico. On left side and top left: The income and food coming into New Mexico. Income includes: government payments from Washington; income from domestic and world exports; and food consumed in New Mexico.

Top and right side of map shows exports of food and expenses related to food: exports of food to world and domestic markets; money leaving the State to purchase agrochemicals, labor, and machinery and cover debt; and the total cost to consumers of imported food. Of all exports, 25% of NM export trade is with NAFTA nations.

The legend lists NM's consistent yearly and frequent (two years in last five) trading partners. Note NM spends \$5 billion on food per year. Because no agency tracks cash receipts for imported food, estimates vary from \$3 to \$4.8 billion. 97% of the actual food (by volume, weight) is estimated to be imported.

NM FOOD GAP MAP

NM suffers from food gaps, illustrated by Dreaming New Mexico's graphic. N.NM has a higher number of citizens on food stamps, an imbalanced distribution of farm supplying schools, and only a few school districts buying from local farmers, which increase food gaps and insecurity.

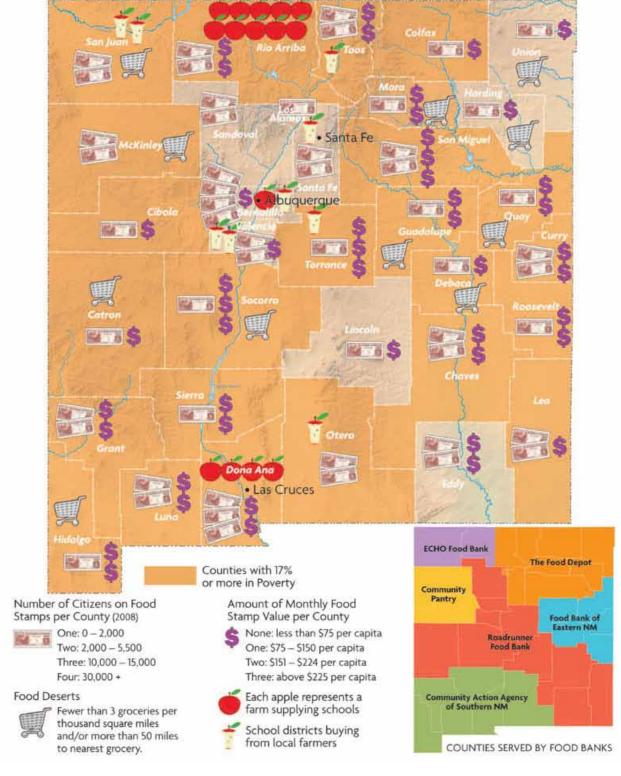
There is a connection between poverty and food insecurity. As the graphic indicates, the russet areas are those counties with 17% or more poverty rates and food stamp needs. The inset map shows county coverage by food banks. The icons on the map indicate food access issues, including lack of full-service groceries and long distances between food and residence. Correcting and augmenting the local New Mexico value chain for agriculture will begin to resolve these broader issues.

From these maps, the following conclusions are drawn:

- Small policy efforts at the local and state level can positively impact food flows, increasing local to local consumption and providing opportunities for growth of local agriculture.
- Infrastructure is a weakness throughout the state, particularly in Northern NM.
- Market facilitation, such as farm to institution, can facilitate cluster development and benefit a number of the challenges in financing, profitability, marketing/sales, and distribution.

⁵⁹ "Fair Trade." Dreaming New Mexico. www.dreamingnewmexico.org/food/ ff-fair-trade.

FIGURE: DREAMING NEW MEXICO'S FOOD GAP MAP 60



⁶⁰ "Enough Food & Healthy Food." Dreaming New Mexico. www.dreamingnewmexico.org/food/ff-healthy

8. LITERATURE REVIEW RECOMMENDATIONS - SYNTHESIZED BY CATEGORY

From the literature review, the report identifies recommendations considered or made both in the U.S. and worldwide to improve local agriculture, and synthesizes common ones by category in the following table. This list of aggregated recommendations aims to provide supplementary ideas to potential value added agricultural improvements, in addition to the previous recommendations and best practices/case studies.

Name	Literature Source
RD1	Scaling Up: Meeting the Demand for Local Food. Day-Farnsworth, Lindsey, et al.
	Madison, WI: UW-Cooperative Extension Publishing, 2009.
RD4	Prospects for Food Localization in New Mexico. Shuman, Michael H. Silver Spring, MD, 2010.
RD7	Dreaming New Mexico' New Mexico Food System Summit Report. Isaacson, Kathy. Santa Fe, NM
RD8	Farm to Table. Closing New Mexico's Rural Food Gap. Santa Fe, NM: Farm to Table, 2006. PDF file.
RD11	Adding Value to the New Mexico Beef Industry. Crawford, Terry L., Ph.D., et al. Las Cruces, NM: NMSU
RD12	Study of Grass Fed Beef as a Value Chain in North Central NM & San Luis Valley, Colorado. Ciepiela, Cecilia, and Steve Warshawer. Taos, NM: AISDevelopment, LLC, 2008.
GT1	Sustainable Agriculture: An Introduction. National Sustainable Agriculture Information Service (ATTRA). USDA Rural Business-Cooperative Service, 2005. http://attra.ncat.org/attra-pub/PDF/sustagintro.pdf.
GT3	Value Chains in the Agricultural Industries. Centrec Consulting Group, LLC. Boehlje, Michael D., Steven L. Hofing, and R. Christopher Schroeder. Centrec Consulting Group, LLC, Aug. 1999. www.centrec.com/resources/Articles/value_chain_ag_industry/val_chn_in_ag_why.pdf
ED2	Burlington Community Food Assessment. Burlington Food Council. Burlington Food Council, Dec. 2004. www.cedo.ci.burlington.vt.us/legacy/community_food_assessment_2004.pdf.
ED3	Boulder County Food and Agriculture Policy Council. N.p., n.d. Web. 10 Nov. 2010. www.bouldercounty.org/openspace/advisory/fapc.htm
EI1	Building Competitiveness in Africa's Agriculture. Webber, C. Martin, and Patrick Labaste. Washington, D.C.: The World Bank, 2009.

TECHNICAL ASSISTANCE SUPPORT	
Increasing specificity of consumer and end-user demands and product differentiation	GT3
Conduct market analysis to identify priority sectors for opportunities of value chain improvements and upgrade; evaluate the capacity to respond competitively to those opportunities	EEI1
Conduct value chain analyses (financial, SWOT, or Competitiveness Diamond), assess operational productivity, the quality of supply chain management, human resources, and business environment of the value chain, and design informed strategies across the value chain	
Conduct benchmarking and gap assessments of value chains	
Identify business models for replication (can implement a pilot enterprise first)	
Analyze the current value chain in the context of the state or national value chain to identify profitable opportunities for expansion and assess operational advantages and disadvantages associated with vertical integration; partner with distributors who have established markets to achieve similar benefits to vertical integration, while reducing investment costs	
Identify areas within the value chain in which enterprises can collaborate horizontally to achieve economies of scale	
Assess a product's size, share of market, scope, potential differentiation to reposition a product for greater value; also analyze the possibilities and requirements for repositioning the product	
Identify, and apply appropriate standards and certifications to achieve greater product quality	
Identify needed support services for the value chain through mapping services, benchmarking and gap assessment against other value chains	
Monitor achievements in value chain performance from setting strategic goals, creating evaluation criteria and processes to report the findings to the value chain stakeholders	
Investigate diversified farm designs, such as Joel Salatin's Polyface Farm in Virginia, that maximize recycling of water, energy, and nutrients	RD4
Assemble and map NM food system actors by agro-eco-region	RD7
Incorporate agro-eco-regionalist thinking to establish local and rural food hubs	
Research viable ways of improving the quality of offerings at small stores following the New York City Department of Health and Mental Hygiene's lead. (New York City found that only 10% of small stores in some neighborhoods offered green leafy vegetables and only slightly over a quarter sold fresh fruit. The City then partnered with small stores to improve their offerings.)	RD8
	Conduct market analysis to identify priority sectors for opportunities of value chain improvements and upgrade; evaluate the capacity to respond competitively to those opportunities Conduct value chain analyses (financial, SWOT, or Competitiveness Diamond), assess operational productivity, the quality of supply chain management, human resources, and business environment of the value chain, and design informed strategies across the value chain Conduct benchmarking and gap assessments of value chains Identify business models for replication (can implement a pilot enterprise first) Analyze the current value chain in the context of the state or national value chain to identify profitable opportunities for expansion and assess operational advantages and disadvantages associated with vertical integration; partner with distributors who have established markets to achieve similar benefits to vertical integration, while reducing investment costs Identify areas within the value chain in which enterprises can collaborate horizontally to achieve economies of scale Assess a product's size, share of market, scope, potential differentiation to reposition a product for greater value; also analyze the possibilities and requirements for repositioning the product Identify, and apply appropriate standards and certifications to achieve greater product quality Identify needed support services for the value chain through mapping services, benchmarking and gap assessment against other value chains Monitor achievements in value chain performance from setting strategic goals, creating evaluation criteria and processes to report the findings to the value chain stakeholders Investigate diversified farm designs, such as Joel Salatin's Polyface Farm in Virginia, that maximize recycling of water, energy, and nutrients Assemble and map NM food system actors by agro-eco-region Incorporate agro-eco-regionalist thinking to establish local and rural food hubs Research viable ways of improving the quality of offerings at small stores

2. MARKETING / SALES Market outside the commodity supply chains and corporate vertical integrators Diversify marketing and sales channels of local food such as direct marketing, entertainment farming and agri-tourism, farmers' markets, community supported agricultural (CSA) programs Research schools, government, and hospital entities regarding demand for locally ED3 produced food Collaborate buyers, growers and distributors to project product sales in advance of the RD1 season, so that rowers can plant according to these projections Aggregators and distributors provide buyers with weekly product availability updates during the growing season Promote consumer education about seasonal product availability Small-scale growers conduct outreach to their buyers through farmers' market stands, in-store tastings and demonstrations, and other "high touch" marketing strategies. If these activities are done in partnership with mid-size growers, producers can simultaneously ensure availability of the volume necessary to enter larger markets Facilitate communications with stories and consumers through packaging, online farmer profiles and other point of sale merchandising that includes information such as farm names, photos of and information about the farmers, and how far the food traveled to allow the potential buyer to choose a product with a clear source and desirable production practices; businesses across the supply chain communicate their unique stories related to sustainability, thereby adding to the authenticity of local and regional products Support local food centers RD8 Promote local cooperatives that cater to local needs Provide more marketing training for farmers 3. CAPITAL Teach emerging businesses to access capital through close affiliations with well-RD1 established parent firms such as natural food cooperatives, distributors and non-profits Cultivate capital outside investor pools and/or producer cooperatives. One cooperative restricts terms under which shareholders sell stocks to foster long-term investment and development Renovate or upgrade existing infrastructure, develop new infrastructure only when necessary Use grant funds to make critical investments in infrastructure and capacity development

	3. CAPITAL cont.	
•	Acquire short-term grant funding	
•	Set up a statewide fund or a homestead program of sorts that help new farmers purchase land	RD4
•	Create a state-run land trusts into which residents, businesses, and others could donate or sell food growing rights on their own property	
•	Create a statewide electronic stock exchange to facilitate initial and secondary offerings of securities offered from small, local businesses in the state	
•	Provide New Mexicans with a 5-10% tax credit for every dollar invested in a local farm or food business in the state. (One effect will be to encourage mainstream investment advisors, brokers, dealers, and venture and hedge fund managers to invest in the legal work necessary to help their clients take advantage of this credit.)	
•	Mandate that the State Investment Council, currently presiding over \$16 billion of funds (almost none invested locally), place 10% of the money in locally owned New Mexican businesses immediately, and expand this commitment by one percentage point per year	
•	Provide funding to install EBT or Smart Card readers at Farmers' Markets	RD8
4.	INFRASTRUCTURE	
•	Match crops and varieties to available infrastructure (e.g., limit climate sensitive crop production to regions where facilities with advanced post-harvest temperature control are available)	RD1
•	Increased access to capital may lead to better on-farm, temperature-controlled storage	
•	Develop small- and mid-scale regional processing; expand and improve existing storage capacity	
•	Develop high tunnels, greenhouses, and other technologies to extend the growing season	
•	Develop processing infrastructure that can build markets for blemished produce that may not make the cut for fresh market sales, but can serve as ingredients in processed foods	
•	Upgrade facilities and institutional kitchen design to accommodate cleaning and prep of product	
•	Join with the NM Passenger Transportation Association to advocate for rural transportation	RD8
	Work with local transportation officials and networks to improve current public	

Establish and/or improve labor standards for public-land agricultural workers	ED3
Train institutional chefs and food preparation staff to design seasonal and regional men compost pre-consumer food waste and prepare fresh product	us, RD1
Revamp state's ag schools to train farmers in organic, sustainable, and four-year program by incorporating technical skills like irrigation, tractor operation and maintenance, season-extension technologies, biofuel, solar applications in agriculture, and other appropriate technologies	ms RD4
Create incubators on land adjacent to the agricultural schools and better mentorship an internship programs for new farmers to get started	d
Develop a statewide education program to revive historical Native American and low-water, low-energy growing methods	
6. LEADERSHIP (INCLUDING COMMUNITY OUTREACH & EDUCATION)	
Conduct regular community forums on local food and agriculture at cultural centers	ED3
Promote transparency in the local food system	
Research ways to improve consumer access to local good	
Improve the state's capacity to "bank" native seeds and to protect landraces from destruction by genetically-modified seeds	RD4
Improve the capacity of New Mexican Department of Agriculture	
Help each county identify specific food leakages and opportunities for localization	
Convene meetings, conferences, and online networks to facilitate more awareness and joint planning among food producers, buyers, and distributors	
Create intermediaries (i.e. cooperatives, associations, holding companies, and other locally owned entities) that can help farmers and ranchers gather, sort, grade, process, and distribute their products, and/or get farmers involved in wind and biomass energy production	
Continue online dialogue and involve more youth in communities' agricultural events.	RD7
Help state and local governments assess availability of grocery stores and local economic imp	act RD8
Encourage the New Mexico Department of Health to include access to food in its goals	
Work with local residents and organizations to start a community garden	
Support community kitchens/value-added agriculture projects in underserved rural communities	
Work with local farmers' market to add cooking and nutrition education with the mark	et
Increase traditional foods education in schools, community programs, food banks, etc.	

•	Continue to support and improve the Food Stamp outreach program with mobile caseworkers	RD8
•	Mandate and fund hands-on nutrition education in schools where over 50% of students are eligible to receive free or reduced price meals	
•	Provide more vegetables and less sugared fruits from the USDA commodity program - there is often too much sugar and too many carbohydrates	
•	Promote nutrition standards for senior nutrition programs	
•	Combine summer lunch and senior programs bringing grandparents and children together	
7.	POLICY	
•	Facilitate public-private dialogue on the operating environment	GT1
•	Identify regulations, laws, and policies negatively impacting growth, competitiveness	
•	Qualify and quantify impact of current business environment on growth, competitiveness	
•	Establish a clear mandate for the public-private forum	
•	Research economic incentives most effective in increasing local agriculture and process such as changes to property taxes, development granting, rewards for sustainable practices, agricultural worker benefit programs, and consumer purchase incentives	ED3
•	Increase state investment in agriculture extension programs that promote local production for local markets to reduce farmers' resistance to increases in food localization in NM	RD4
•	Reform land-use policies to promote smart growth, fewer subdivisions, and more agricultural land	
•	Increase the price of water to reflect its true replacement cost, and use the funds gathered from higher prices to help farmers finance and implement water efficiency measures (mindful that seepage and some other "inefficiencies" actually can be environmentally beneficial); stop transferring water rights from agriculture to sprawling residential and commercial development	
•	Reform state investments laws to permit major institutions in the state – such as churches, pension funds, foundations, local governments, cooperatives – to place up to 25% of their corpus in local businesses. (Such investments, for example, might be declared as presumptively meeting their fiduciary responsibilities.)	
•	Enact a modest carbon tax (British Columbia recently did), sufficient to cut other taxes 5% to make tax revenue neutral, with a special emphasis on cutting taxes on small business	
•	Facilitate the expansion of biomass, solar, and wind energy in the state	
•	Create disclosure requirements, on all public authorities (including counties and municipalities), so that the state has an easily accessible inventory of every economic-dollar invested, which companies received them, whether they are locally owned, and what the job impacts were	

7. POLICY cont. Prevent deals that are foolish or corrupt, create a bidding process for any public business-RD4 support programs and help local businesses to apply; discount bids from businesses that invest public dollars locally by deploying the same process outlined earlier for public procurement Focus state economic-development money on local food businesses creating stronger links with in-state suppliers, shippers, purchasers, manufacturers, and other value-adding businesses Integrate local food more comprehensively with other approaches of economic development, including promoting tourism, farmers markets, and the creative economy Make healthy, nutritious, local food state-wide a critical priority for improving public health. RD8 Advocate for a Senior Farmers' Market Nutrition Program in New Mexico Provide necessary assistance to establish Farmers' Markets on Native Reservations and **Pueblos** Support greenhouse projects to increase agriculture viability, especially with regards to Farm to Cafeteria projects (selling to local schools) **VALUE CHAINS** 1. FARM-TO-SCHOOL VALUE CHAIN Strengthen schools' food service staff/teacher relationships and connections with local ED2 farms - through school-wide trainings, facilitated discussions, school food committees, and etc. Have local farms and school food programs jointly plan and agree upon processing and distribution system of local crops appropriate for school cafeterias Expand access to kitchens, gardens, farms and fresh produce in food education programs Increase the reimbursement rate for school meals RD8 Support free breakfast for all children in New Mexico's schools Implement rules for competitive foods in all NM schools - foods and beverages should be health-promoting and not detract from school food mission to provide balanced meals to students Adopt recess before lunch (RBL) policies in all schools Provide training and incentives to school food service Inform schools about the availability of "farm to school" programs that are already taking place and encourage their replication

	VALUE CHAINS cont.	
	2. BEEF VALUE CHAIN	
•	Combine certification, standards, and verification for health, environmental sustainability, and animal welfare with the state or regional beef branding program	RD11
•	Develop a "line" of natural products, with GFB meeting both the USDA and AGA standards as a super-premium product with the highest premiums. Alongside the super premium product, develop other beef that answer to other premium standards, and do the same with pork and poultry	RD12
•	Develop a NM brand differentiated on the "story"	
•	Develop alliances with southern producers and producers nearby to expand supply base	
•	Redefine the local market as a 4-hour drive time (300 mile radius) that would include Santa Fe and Albuquerque – which are critical to the sustainability of any high value/value added agriculture product – and still garner the "local premium"	
•	Position the New Mexico brand and product line for export from its immediate area.	
3.	PRODUCTION VALUE ADDED CHAIN	
•	Control product quality and consistency by adopting low- to high-tech product traceability mechanisms and food safety plans, and centralize grading and packing houses combined with co-labeling and unified production standards	
•	Some aggregators source product locally when possible and view this as a special service to their clients. They then source from a larger geographic pool during the off-season	
•	Educate growers on issues such as pre-season planning, purchasing preferences, packaging specs, market trends, projecting production volume and cost of production, post-harvest handling and pest management to improve product quality and consistency and optimize grower returns	

9. INTERVIEW & STAKEHOLDER LISTS

FILM/ ORGANIZATION

- Bankers & Financial Professionals
- Bioneers Dreaming NM leaders
- Corporation for National and Community Service
- County Food Councils
- EDD
- Enlace
- Eve's Farm
- Farm to Table
- Finance for Food
- Former County Manager of Rio Arriba
- Global Center for Cultural Entrepreneurship
- Good Food Network
- La Montanita Co-op
- LANL Foundation
- Local Elected Officials
- Local Farmers
- Los Alamos Commerce and Development
- Los Alamos Farmer's Market
- New Mexico Commission for Community Volunteerism
- New Mexico Community Loan Fund
- New Mexico Land Conservancy
- NM Acequia Association
- NM Association of Grantmakers
- NM Beef Industry Improvement
- NM Collaboration to End Hunger
- NM Department of Agriculture

- NM Farmers Marketing Association
- Organic Rancher
- Permaculture Guild Member
- Philanthropy Consultant
- Pollo Real
- Red Willow Sustainable Ag Center
- Refugio Verde Greenhouse and Gardens
- RSF Social Finance
- SALCI
- Santa Fe Alliance Farm to Restaurant
- Santa Fe Community Foundation
- Small Business Development Centers
- Taos Community Foundation
- Taos County Economic Development Corporation
- Taos Land Trust
- Taos Valley Acequia Association
- The Center for Philanthropic Partnerships
- The Old Windmill Farm
- The Quivira Coalition
- Think New Mexico
- UNM Taos
- Upper Rio Grande National Heritage Area
- US Department of Agriculture: local and national
- Vallecitos Mountain Refuge
- Vitalis Organic Seeds
- VOCES

10. SUMMARY OF CONSERVATION EASEMENTS

WHAT IS A CONSERVATION EASEMENT?

A conservation easement is a voluntary agreement between a landowner and a land trust that permanently retires some or all of your development rights. You still own the land and are not required to provide public access. You can continue to use the land for farming, ranching, or other sustainable uses, you can reserve sites for barns, other agricultural buildings, or limited home sites (within reason), and you can sell it or pass it on to your heirs. But the protection stays with the land forever no matter who owns it.

There are significant costs involved in completing a conservation easement, but with the current tax and financial benefits available to most landowners, those costs are covered, and then some.

WHAT A CONSERVATION EASEMENT IS NOT

- You do not give up ownership of your land. The deed stays in your name and the land stays in your family. You give up only those specific development rights that you voluntarily agree to in the conservation easement.
- You do not give up control of your land. The land trust is not looking over your shoulder every day telling you how to manage your land. We will just come out once a year for a brief visit and make sure that the terms of the easement are being honored.
- You do not have to provide public access to your land.
- A conservation easement is not just for rich people. That used to be more true than it is today, but with new tax breaks, the benefits are available to landowners of all income levels, and particularly generous for farmers and ranchers.
- A conservation easement is not a communist conspiracy to strip private property rights or take over your land. It's your land and your choice.

CHARITABLE CONTRIBUTION

Even though the public may never enter your land, a permanent conservation easement is still a significant public benefit: you are healthy watersheds, and provide beautiful views. The state and federal governments recognize that public gift as a charitable contribution with significant tax incentives.

The charitable contribution is basically the value that you give up in your land, or the value of the development rights that you retire. Appraisers will use a "before and after" method, where the "before" value is a typical real estate appraisal of full market value; the "after" value is the reduced value once certain development rights are retired through the conservation easement; and the difference between the two is the conservation easement value, or your charitable contribution. The more development rights you retire, the greater the reduction and therefore the greater the value of your contribution.

For example, using simple numbers: If you own a property with a full market value of \$2 million (before value), it could be reduced in value to, say, \$1,200,000 with a conservation easement (after value). The difference of \$800,000 is the appraised value of your conservation easement, which constitutes your charitable contribution.

TAX BENEFITS

The **New Mexico Land Conservation Tax Credit** is one of the few transferable conservation tax credits in the country, which allows landowners to sell their tax credits to a third party for direct income. Landowners at any income level can qualify for a tax credit worth 50% of the appraised

value of the conservation easement up to a maximum of \$250,000. Multiple landowners on the same deed can each qualify for a separate tax credit. Working through an established brokerage system, most landowners get a net payment of about 80% of the face value, or up to \$200,000 per credit. Once the credit is established it can be used or sold over 20 years.

The **Federal Income Tax Deduction** currently allows any conservation easement landowner to deduct up to 50% of their Adjusted Gross Income (AGI) each year from federal income tax for up to 16 years, or until they use up the appraised value of the conservation easement. Farmers or ranchers who make at least half of their income from the land, can deduct 100% of their income each year from federal income tax for up to 16 years.

The **Federal Estate Tax Benefit** can be essential for passing undeveloped land intact to the next generation. By removing the land's development potential, the easement typically lowers the property's market value, which in turn lowers potential estate tax. Beyond the appraised value of the land, IRS allows the taxable value of property with a conservation easement to be reduced up to 40% more for estate tax purposes, which will usually bring the tax bill well below any amount that is exempted from estate tax. Conservation easements placed postmortem within a certain amount of time also qualify for this benefit. Estate tax policy is a moving target and continues to change year to year, but planning ahead will minimize the chance that your heirs will have to sell the land just to pay the estate tax.

"TEN REASONS TO PLACE A CONSERVATION EASEMENT" BY JACK VARIAN (FROM THE CALIFORNIA RANGELAND TRUST):



Conservation Easements for Agricultural Landowners
By Taos Land Trust
P.O. Box 376, Taos,
New Mexico 87571
575-751-3138
info@taoslandtrust.org
www.taoslandtrust.org

"Our Goal at the V6 Ranch is:

- To keep this land economically productive and open and to manage this land for the good of all. To cultivate natural beauty by slowing down water and using the teachings of Holistic Management to achieve this goal.
- Pay off ranch debt.
- Protect family unity by removing the ability to divide the ranch.
- Program is voluntary.
- Integrity of Easement is maintained because the California Rangeland Trust is the holder of the easement and does the monitoring.
- Reduction of ranch value for inheritance tax valuation.
- Gives permanent home to all the other critters who live on the ranch. (i.e. deer, birds, rabbits, coyote, etc.).
- It's time to pay back to the land for the good life it has given my family.
- Private property rights are maintained just as they were before the easement.
- What is our legacy to the future generations? Do we leave some land open or are we so greedy that we pave it all over?"

11. INTERVIEW LETTER

Dear Colleague,

Scott Beckman at RDC recommended that we speak to you regarding our current study in value added agriculture. At your convenience, we would like to set up a 30-45 minute conversation with you in the **next two weeks** for your feedback on the below ideas.

The Santa Fe based consulting firm, Social Enterprise Associates, is leading a Northern New Mexico project for a local NGO; the Regional Development Corporation (RDC). The project is called the Regional Economic Development Initiative's (REDI) Value Added Agriculture Cluster Study. We believe extensive information and solutions already exist in the community. To avoid re-creating the wheel, our goal is to enhance the work organizations like yours are already doing.

Towards this end, we ask for your time in September and October to identify key gaps for community solutions and provide feedback on 2-3 specific collaborative community next steps. Some of those initial ideas are listed on the next page.



POTENTIAL IDEAS PREVIOUSLY MENTIONED AS POSSIBLE NEXT STEPS:

Topics for Consideration	Preliminary Specific Recommendations
 <u>Technical Assistance Support</u> Conduct outreach to, and needs assessment for, farms & companies Strengthen the current Technical Assistance provider network and referral system 	 Coordinate technical outreach providers: e.g. ag extension, loan programs, and other service providers Identify gaps, seek funding to close
 Marketing / Sales Develop local value chain partnerships Assist farmers, local producers to match supply/demand through marketing and sales Conduct educational campaigns to increase local consumption 	3. Fund ways to aggregate farm and food products to increase sales for farmers4. Promote local food consumption
 <u>Capital Resources</u> Organize collaborative grant efforts Assist with funding, business financing gaps 	 5. Promote SF Farmer's Market loan fund; La Montanita's new loan fund 6. Support collaborative grant application 7. Link financial institutions to sector
 <u>Infrastructure</u> Fund, develop and/or sustain storage, processing and distribution mechanisms 	 8. Increase food aggregation, back-haul 9. Develop cold storage and light processing facilities 10. Sustain local Matanzas 11. Develop transfer stations 12. Establish & organize farmers' markets
 <u>A Larger Workforce</u> Leverage workforce development – increase interns and AmeriCorps for green jobs Develop a mentoring network for up–and-coming farmers and local producers 	13. Seek funding for farmer/mentor program 14. Add AmeriCorps & VISTAs in region
Leadership Development Form an ongoing, long-term industry cluster regional council. Hold industry-specific events; sponsor networking services	15. Coordinate with key stakeholders to establish and fund an industry cluster regional council
 Policy Lobby for public policy to help agriculture Support agriculture friendly infrastructure 	16. Food hubs 17. Renew land conservancy tax benefit

Project team members contributing to this initiative include:

Drew Tulchin, Social Enterprise Assoc
Erin Sanborn, Collaborative Green
Linda Velarde, local farmer & consultant
Ernie Atencio, Taos Land Trust
Steve Warshawer, Beneficial Farms CSA & La Montanita CoOp
Shawn Duran, Taos Pueblo
Erica Renaud, Vitalis Organic Seeds
Miguel da Silva, Architect and Chimayo Acequia Mayordomo
Tim Keller, Sandia Advisors & NM State Senator

We also need the perspective of more stakeholders like yourself. We welcome your suggestions of others we should involve. Additionally, we welcome your contribution of any materials/papers that might be insightful for this initiative. The overall goal is to make local food more readily available and improve the economic well-being for those growing and making our food in Northern New Mexico.

We look forward to learning from your knowledge and wisdom. Keep up the great work.

Andrew (Drew) Tulchin Social Enterprise Associates drew@socialenterprise.net www.socialenterprise.net (505) 715-6927 Erin Sanborn Collaborative Green erin@collaborativegreen.com www.collaborativegreen.com (575) 770-2991

12.PUBLIC INPUT DOCUMENT

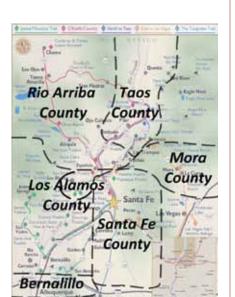
A PROPOSAL FOR COLLECTIVE ACTION IN NORTHERN NEW MEXICO AGRICULTURE

Social Enterprise Associates, on behalf of the Regional Development Corporation's (RDC) Regional Economic Development Initiative (REDI), is seeking your input and we welcome your comments / feedback on this value-added agriculture industry cluster study. This short document focuses on report recommendations. These recommendations are meant to strengthen Northern N.M.'s food system over the long term. The final report will be completed in early 2011. Please provide comments / feedback directly into the document with track changes or by phone to a consulting team member. Please submit feedback on:

- Provide any / all comments to improve the quality of the recommendations
- Identify where these recommendations can be strengthened
- Identify and prioritize specific action steps within the recommendations
- State which goals, recommendation and/or actions you are currently working or intend to work in
- Identify which recommendations require regional governmental agency leadership and support

Thank you,

Drew Tulchin drew@socialenterprise.net, 505.715.6927 Erin Sanborn erin@collaborativegreen.com, 575.770.2991



County

BACKGROUND

The Regional Economic Development Initiative (REDI) is one of Los Alamos County's Progress through Partnering initiatives, funded by county gross receipts tax revenue and managed by Regional Development Corporation (RDC), a Northern NM based NGO focused on creating a diverse and sustainable economy. REDI was initiated in 2007, through cooperative agreements among Los Alamos County, the City of Santa Fe, Santa Fe County, the City of Española, Rio Arriba County, Taos County and the Town of Taos. The REDI Strategic Plan, completed in 2008, is a long-term, 25-year plan for economic development in the region. Currently, REDI is implementing several plan components, including Regional Broadband, Economic Development Services, Cluster Strategies, and public-private Partnerships. In recent years, regional partners were added and now include tribal governments and private sector entities.

REDI's members identified, by consensus, four industry clusters for concentration:

- Renewable Energy/Green Industry
- Technology
- Value-added Agriculture
- Film and Digital Media

Value-added agriculture is the final industry cluster study of the four proposed by REDI's leadership. Local public leaders recognize its importance and are committed to assisting in its development. REDI's work in value-added agriculture is to increase economic opportunity, local food consumption, and food security with development of a comprehensive food system. REDI's previous industry cluster studies focused on and integrated work done at the county level. Given that value-added agriculture follows regional natural water and food sheds, this industry cluster is slightly different. The illustration maps county lines over Dreaming NM's food shed map. As this cluster develops, the integration of foodsheds with county lines is valuable. Collaboration will be key.

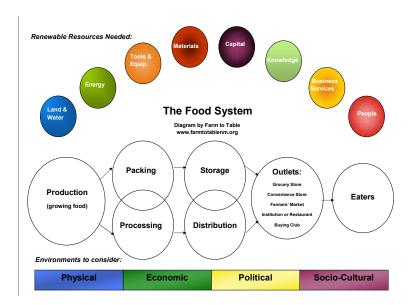
Food and agriculture underlie every aspect of N. NM culture, economic activity, and health. Over the past 18 months, at least six major reports on food and agriculture have been published. They have each significantly contributed to documenting the current state of food and agriculture for Northern NM, as well as, identifying the direction this industry cluster is heading towards. They should be consulted for a detailed picture of the current system components, strengths, weaknesses and a clear vision of the future. Hopefully, this REDI report is complimentary to the important work done to date.

"The Sustainable Agriculture Development Report" by NM Governor's Green Jobs Cabinet and the Agriculture Working Group summarizes areas of work ahead and strategic actions required to grow this cluster. "Closing New Mexico's Rural Food Gap" by Farm to Table identifies the causes and urgency needed to deal with access, lack of nutrition and food insecurity in the state. "Study of Grass Fed Beef as a Value Chain" by Cecilia Ciepiela and Steve Warshawer details beef by its value chain. It is a strong educational piece on value chain analysis. Dreaming New Mexico's "An Age Of Local Food Sheds;

A Fair Trade State," Michael Shuman's "Prospects for Food Localization in New Mexico"; and Jim Cochran / Larry Lee's "The Food Commons: Building a National Network of Localized Food Systems" establish a vision and strategies that NM leadership appears to support.

Key baseline data from these documents reveals:

- Most Northern NM farms are smaller than 50 acres & generate less than \$10,000 in annual sales
- The majority of local farmers operate in the red, which is unsustainable in the long term
- Local ranchers of cattle, the highest earning agricultural product, typically have fewer than 30 head
- NM is 12th in terms of food insecurity in the nation; currently importing ~95% of its food



Two key assets of our local food system are a long history of agriculture and a core group of committed people. Those advancing local food security are part of a larger national and even international movement to produce, access, secure and consume healthy and nutritious food while honoring local traditions, customs, and culture.

RECOMMENDATIONS AREAS

Preliminary analysis and dozens of conversations with agricultural stakeholders prioritized these recommendation areas, for which specific action items were then considered:

- Infrastructure Development
- Policy Development & Advocacy
- Capital Resource Development Specific Value Chain Enhancement Regional Leadership & Coordination

Northern NM's food system "has potential to be a major locomotive for economic growth and a magnet for a new generation of innovators who need access to capital and a place to put their energy and creatively to work. This model takes into account economic, social and environmental impacts stewardship. This system can revitalize and ensure the continuity of small and midsized family farms that steward the land, nourish our communities and our health, and comprise the fundamental building blocks of local food security. Enhancing the system is a massive undertaking. It is an entrepreneurial effort of unprecedented scale and is based on an economic model that will be new to some people."

GOALS OF THIS REPORT ARE:

(The Food Commons)

- Grow the Northern NM food system
- Raise the profile of local food efforts and the creation of this cluster to existing and new stakeholders
- Bring substantial dollars into the food system in the forms of new capital through philanthropic contributions, governmental grants and allocations, and private investments
- Identify and focus on 1-3 strategic projects within the local food system over the next couple years
- Model successful collaboration
- Foster stronger links between local food shed stakeholders, government, philanthropic and investors

Robin Seydel from La Montanita Co-op captures this, saying,

"There are promising new opportunities providing food responsibly, locally and without loss of quality. We are working both within the current agricultural system and creating a new system at the same time." This cluster is working within service area value chains, product value chains and as a whole system.

This diagram, from Farm to Table, shows the elements of the food system and how they are linked.

RECOMMENDATION: INFRASTRUCTURE DEVELOPMENT

PROBLEM/OPPORTUNITY STATEMENT:

Most farms in N. NM are small to mid-sized. Median farm size of 637 farms in Taos County is 27 acres, of 1,312 Rio Arriba farms is 30 acres, and 489 Santa Fe farms is 17 acres. Balancing between a profitable economy of scale, land availability, short growing seasons and time to develop new markets, leads most farms to operate in the red. When these challenges are overcome, farmers are able to increase in size, work to aggregate volume, build demand, secure contracts and produce high quality products. Infrastructure must be tailored to growth so as to not over build; e.g., trucks that distribute food need back-hauling fulfilled so as to not return empty. Certain communities are large enough for a "food hub"- a place or infrastructure to market, process and distribute foods locally. Other places merely need to enhance a community kitchen, a farmers' market, or food depot to advance and play a stronger role in the system.

TARGET:

Develop county-specific infrastructure components and link them regionally into a networked regional system to close gaps of aggregation, light processing, storage and distribution.

POTENTIAL NEXT STEPS:

- Collect baseline information: determine lead agencies by community, ensure what is already happening, and identify immediate needs.
- Document post harvest handling and current distribution. Identify
 productivity improvements, advance, if necessary, along parallel
 tracks: i.e., educate farmers on existing resources, support new
 farmers, etc.
- Support existing efforts to increase links to local food centers: grocery stores, hubs, kitchens, depots, etc., for the whole system. Assist efforts seeking year round production.
- Assist in the development of business plans for specific efforts progressing. Include marketing, securing contracts and tiered / cascading pricing. For example, county-based hubs as aggregation points for regional markets. Each county hub needs tiered pricing to work; i.e., sell high end to restaurants, middle market to retail consumers, affordably priced items to schools, low end might go to food pantries, depots and processing sites.
- Direct an awareness campaign focused on natural and local food consumption towards target populations. For example, corporate employees, national labs, hospitals, etc. with target goal of educating X people.
- Facilitate land conservation and farm transfer. Preserve land and water, particularly assisting farmers and producers transitioning land from one generation to the next to ensure farming continues.

RECOMMENDATION: POLICY DEVELOPMENT & ADVOCACY

PROBLEM/OPPORTUNITY STATEMENT:

There are numerous laws supportive of local agriculture and economic development, including land easements, subsidies, and new local purchasing preferences. However, most are not necessarily aimed at, or easy to access for, small and medium farms, particularly those interested in social and environmental bottom lines. Progress could be seen if the amendment to the current Farm Bill passes where small farmers selling directly to consumers within state lines or a 275 mile radius would be exempt from some regulations outlined in the Food Safety Bill. Conducive policy may be challenging to implement, but agriculture is of value to the entire state with far-reaching implications for the region. There is a need for a clear local agriculture policy agenda and more advocates, in the area of local procurement, for instance. It is valuable for these advocates to be seen as non-partisan building a coalition of business and support entities.

TARGET:

Increase the number of organizations and people who will bring their voices and resources to bear on policy changes supporting development of N. NM's regional food system.

POTENTIAL NEXT STEPS:

- Coordinate with food/agriculture policy councils in each county & related organizations state/ nation-wide.
- Work with businesses and support stakeholders to develop a coherent agenda and action plan with specific initiatives: coordinate letter writing and other mass campaigns.
- Advocate for legislation to drive demand: procurement laws, school food budgets, meat inspection, the upcoming Farm Bill, etc.
- Support work of like-minded organizations including Dept. of Agriculture, NM Environment Department, Ecotourism, USDA, and Economic Development Department as it relates to agriculture.

RECOMMENDATION: CAPITAL RESOURCE DEVELOPMENT PROBLEM/OPPORTUNITY STATEMENT:

There is not enough money available to support issues around access to food, such as school lunches, etc. Money that exists is under-allocated. Many farms and small scale agri-businesses are experiencing credit problems either accessing commercial capital or qualifying for loans. In the typical competitive funding environment: some win while others lose, or everyone gets a little - but not enough. Federal funders, like USDA, identified NM 'sending back' millions of dollars each year. Grant funders, with even fewer dollars these days, prefer more targeted asks, such as collaborative applications and larger solutions. Private investment is low due to expectations of traditional ROI and ownership. New mechanisms, like 'Slow Money' and socially responsible investment, are growing and benefit from finding local deals.

TARGET:

Establish a Funding Convener – a regional broker between providers of capital and those seeking it. Establish a collective effort with menu of prioritized projects with specific price tags to jointly fund-raise.

POTENTIAL NEXT STEPS:

- Identify prioritized funding needs for each county and the region. Establish a "Menu" of projects for collective action fund raising and match the menu items with appropriate organizations / bodies.
- Convene funding stakeholders in formal and informal meetings; educate them on local opportunities. Organize learning summits for different populations: philanthropic community, investors – banks, slow money advocates, and other investment, business involvement, and government funding agencies.
- Shop deals' in an organized fashion from the menu to various funders and investors. Match appropriate parties with specific opportunities (e.g., a consortium for specific USDA funding).
- Organize a new NM AmeriCorps*VISTA application. Placements are increasing. Allocations are already made for federal government fiscal year 2011. A coalition can be formed to submit for FY2012. The proposal will need a lead organization. Connect with current VISTA recipient agencies to see if expanding an existing program is possible. Identify new organizations able to host a VISTA successfully & detail specific appropriate projects. Secure matching funds (up to \$10,000 per placement).

RECOMMENDATION: SPECIFIC VALUE CHAIN ENHANCEMENT, SUCH AS THE BEEF INDUSTRY

PROBLEM/OPPORTUNITY STATEMENT:

Beef is one of the most profitable agricultural products in NM. As such, the local Northern New Mexico beef industry is a keen area for more support. Today, local needs include a cohesive local brand, better infrastructure and more marketing / sales channels. Building up nascent efforts is necessary.

TARGET:

Support greater development of the beef value chain.

POTENTIAL NEXT STEPS:

- Promote local labels A recognized label draws attention to the benefit of local beef, emphasizes its value and is easier for small farmers to sell. Limited efforts have been tried, but they do not reach all local ranchers. There are a number of market efforts underway which could be supported.
 - a. Sweetgrass Beef Co. might potentially operate as a cooperative. What is needed is to contribute to feasibility efforts. Assist with its business plan development, including specific research in inspection / certification done locally. And, help accessing funding is needed.
 - b. Sysco Corporation has a new product, Heritage Ranch Beef sourcing NM ranchers. Due to its early stage, it is unclear how it impacts local ranchers. Potential action items include: work with NMSU on the follow up report

to determine if ranchers extract value from Heritage Ranch Beef brand (monetarily or otherwise). If beneficial for ranchers, determine next steps to bolster the initiative and the brand.

- Reinstate the Livestock Board Investigate reinstating this so beef businesses process, inspect and certify meat at an affordable cost, in N. NM (current costs of an FDA inspector are high), creating local, NM jobs.
- Enhance sales channels community comments identified that more buyers of whole cows were desired. Working through local hubs, coops and markets will increase revenue potential for local farmers.
 - a. Collaborate with local, established efforts. Identify where mobile Matanzas work.
 - b. Elaborate upon business and market development.

RECOMMENDATION: REGIONAL LEADERSHIP & COORDINATION PROBLEM/OPPORTUNITY STATEMENT:

Because of the nature of farming, ranching and agricultural product processing and producing, time to coordinate marketing, financing, and strategic planning is hard to come by. Stakeholders indicated regional coordinators are needed for value chains: Farm to Table, Farm to Institution, Farm to Restaurant and more. Coordination would support the leadership councils that currently exist. Coordination would address access and food security.

TARGET:

Fund a regional food system coordinator.

POTENTIAL NEXT STEPS:

- Select the host organization. It should have the respect of others operating locally, have infrastructure to support the position, work region-wide, and leverage its resources. Entities already part of this work include the Center for Philanthropic Partnerships, Farm to Table, La Montanita Co-op, RDC, Dreaming NM or others.
- Raise seed funding. A potential first year budget is \$100,000: salary, office overhead, travel, stipends to farmers involved, and summits. RDC has committed \$15K towards this and is actively seeking funders to match. This seeks to begin the long term commitment by RDC and others to the local food system.
- Convene a Leadership and Advisory Council to establish a core group to contribute to this effort and prioritize goals and tasks for the coordinator. Membership is invited to be self-selected, with open rotation. Invite those who currently serve on food, farm and agriculture councils.
- Develop an action plan with the Leadership/Advisory Council and other stakeholders.

Thank You for your input!!!!

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