

Community Economic Impact of Local Foods



THE GRAND CHALLENGES



Food, water, & energy for 9 billion people by 2050.

<http://grandchallenges.tamu.edu/home/>

Sustainability

Social

**Local
Foods**



Environmental

Economic



47% rural,
~45% farmers



19% rural, 2% farmers



15% rural,
1.5% farmers

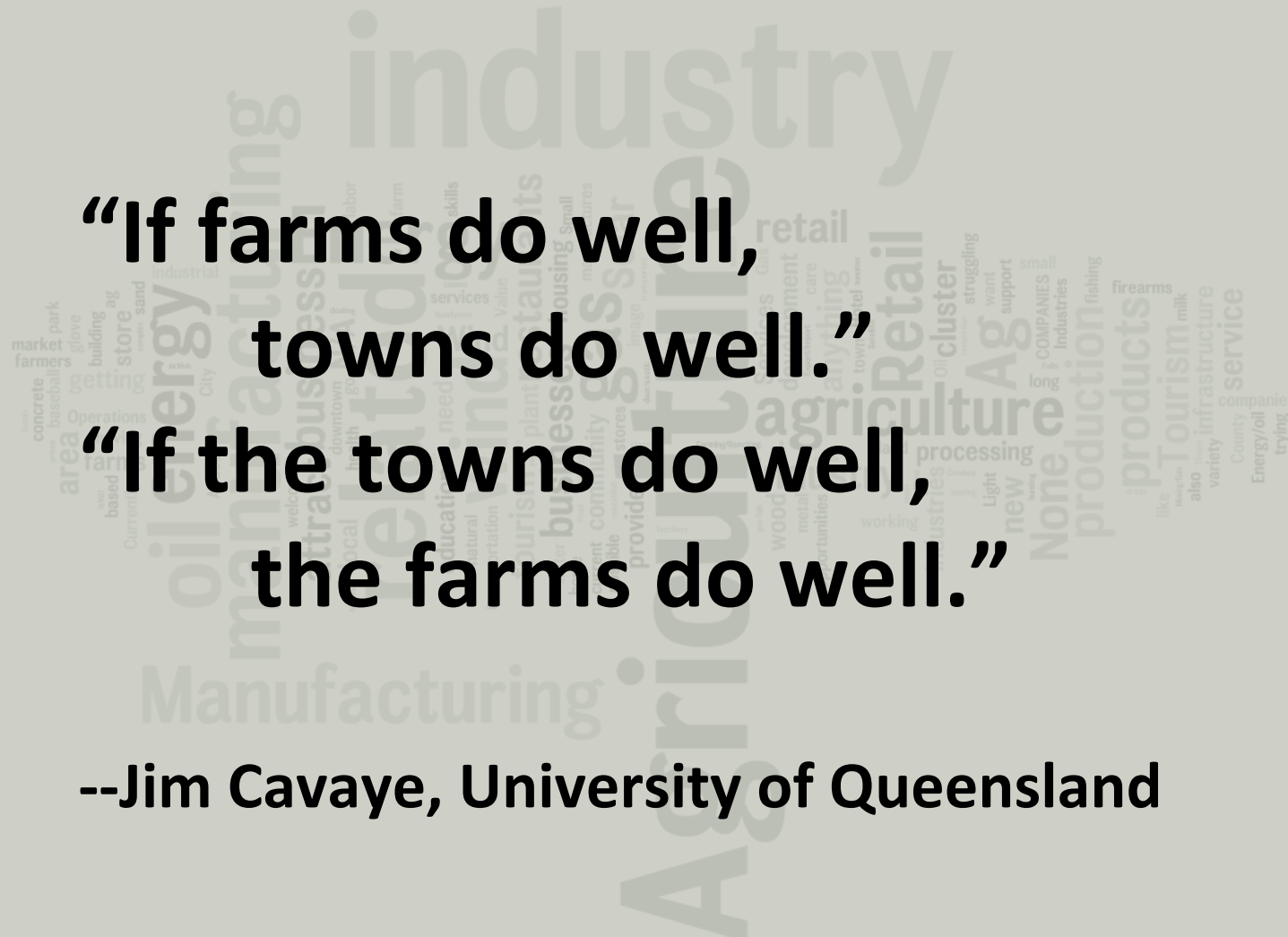
Texas GDP



8.3% food & fiber

15.3% mining & utilities

Rural Industries



**“If farms do well,
towns do well.”
“If the towns do well,
the farms do well.”**

--Jim Cavaye, University of Queensland

Texas Vegetable Production

	2012		2007	
	Farms	Acres	Farms	Acres
Less than 5 acres	1,274	2,342	1,278	2,301
5-14.9	419	3,299	408	3,113
15-49.9	135	2,433	142	2,602
50-99.9	100	3,432	119	4,027
100-249.9	118	8,005	133	8,848
250+ acres	166	123,867	161	110,804
Total	2,296	130,326	2,353	128,108

2012 Census of Agriculture Table 38, Texas.

Texas Value of Farm Sales

Vegetable Farms:

- 2,276 of 248,809 farms (0.9%)
- \$474,949,000 of \$25,375,581,000 (1.9%)
of sales
- **\$18.23/Texan of \$973.77**

2012 Census of Agriculture Table 2, Texas.

**How do we make farms
and towns do better?**



Industry Clusters Defined

Similar and related firms in a defined geographic area that share:

- Common markets
- Technologies
- Worker skill needs
- Buyer-seller relationships



Adapted from SET Curriculum, SRDC

Two Types of Clusters

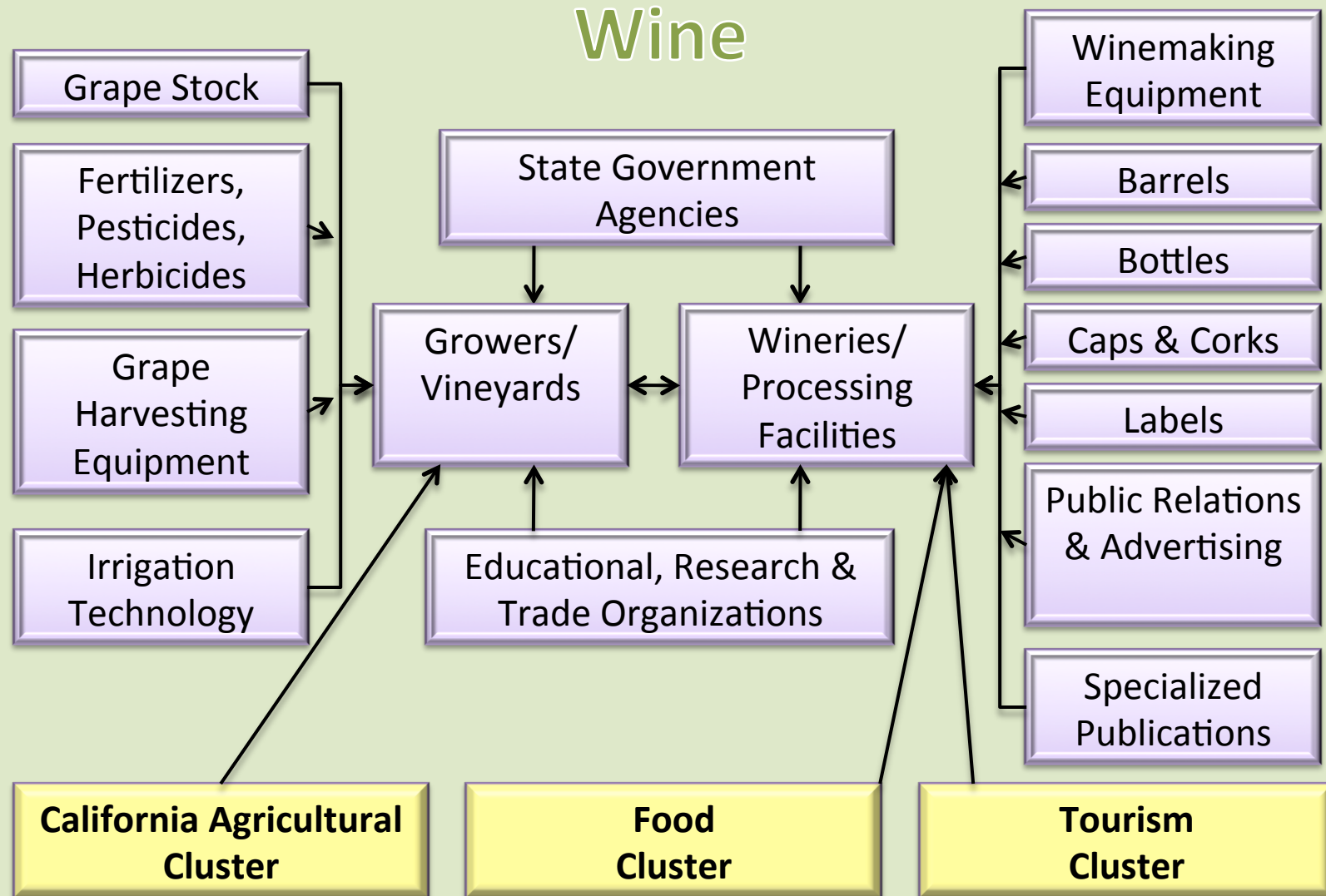
- Value chains (Vertical clusters): working together toward a common product →



- Competing (horizontal clusters): drawing from the same raw materials, infrastructure, labor force →



Value Chain Example



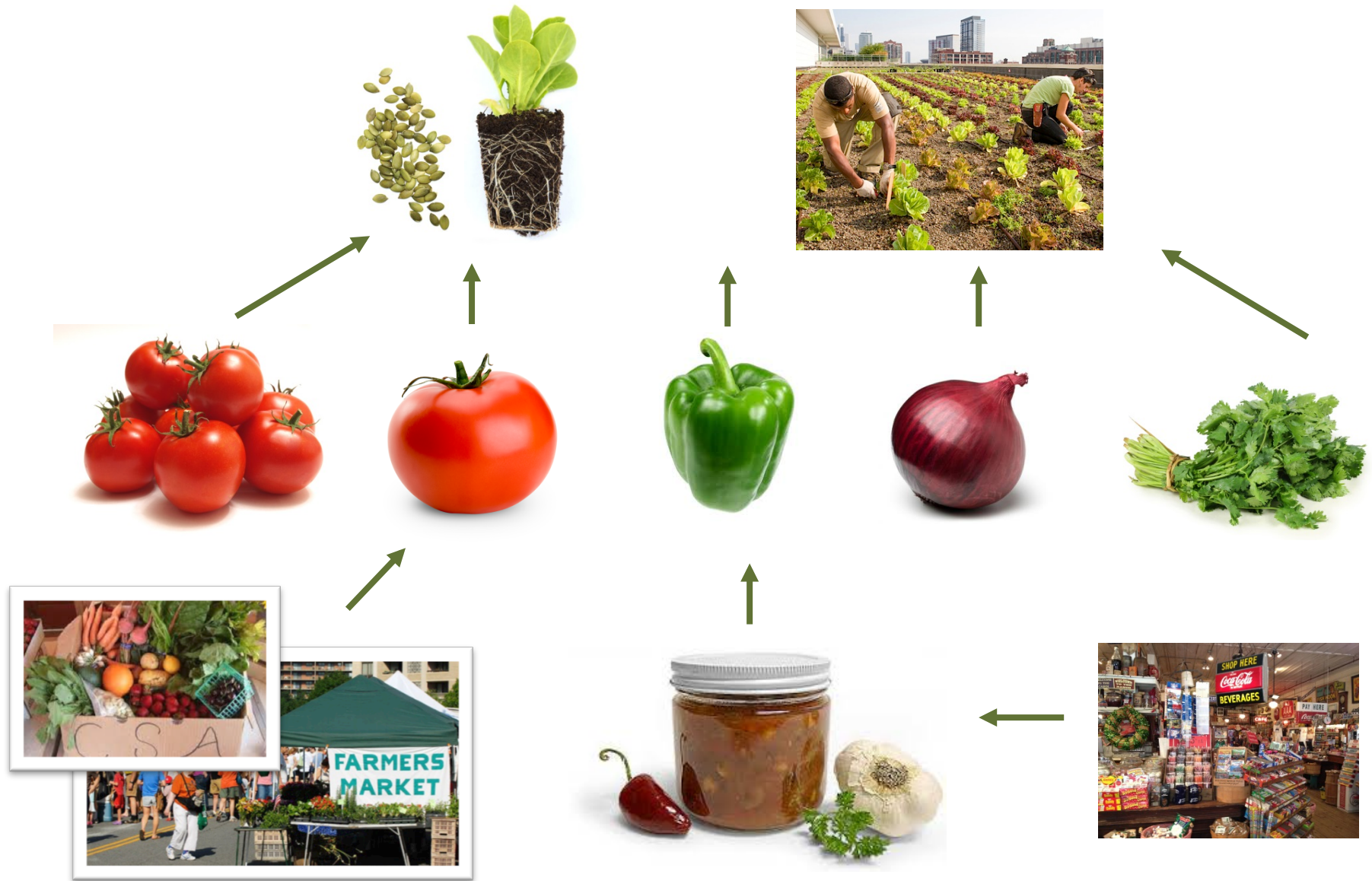
Slide from SET Curriculum, SRDC

Source: California Department of Food and Agriculture

Local Foods Value Chain



Local Foods Value Chain



Local Foods Value Chain



Texas Vegetable Production

- Harvested for Fresh Market



2,232 farms

100,786 acres

- Harvested for Processing



127 farms

29,540 acres

2012 Census of Agriculture Table 38, Texas.

Bastrop County Vegetable Production

- Harvested for Fresh Market



Bastrop

23 farms

81 acres

Travis

23 farms

216 acres

- Harvested for Processing



0 farms

0 acres

0 farms

0 acres

Impact Chain

Economic impacts are the indirect and induced effects of a final demand sale as money circulates through the economy.

Impacts represent backward-linked supply chains, which are enhanced through local purchases.



\$1,000 Vegetable Sale

Impact Type	Labor Income	Value Added	Output
Direct Effect	\$361	\$817	\$1,000
Indirect Effect	\$38	\$54	\$99
Induced Effect	\$40	\$98	\$180
Total Effect	\$439	\$970	\$1,279

\$1,000 Vegetable Sale

Description	Labor Income	Value Added	Output
Vegetable and melon farming	\$361	\$817	\$1,000
Ag support activities	\$29	\$31	\$46
Owner-occupied dwellings	\$0	\$29	\$41
Real estate	\$0	\$12	\$17
Petroleum refineries	\$0	\$3	\$14
Maintenance and repair construction of nonresidential structures	\$3	\$3	\$10
Wholesale trade	\$2	\$6	\$10
Electric power transmission and distribution	\$1	\$2	\$8
Limited-service restaurants	\$3	\$5	\$7
Monetary authorities and depository credit intermediation	\$2	\$4	\$7

MIG IMPLAN (Impacts for PLANning)

FileOptionsAnalyzeExploreCustomizeHelp

Current Model: Bastrop default

Tasks

Model

- New Model
- Open Model
- Close Model
- Model Overview

Analyze

- Setup Activities
- Analyze Scenarios
- Scenario Results

Explore

- Study Area Data
- Social Accounts
- Industry Accounts
- Multipliers

Customize

- Study Area Data
- Industry Production
- Commodity Production
- Trade Flows

Setup Activities

Activities
New ActivityCopy ActivityPaste ActivityEdit ActivityDelete ActivityActivity Options

	Activity Name	Level	Activity Type
	\$1K Tomatoes	1.000	Industry Change
▶	81 Canned fruits and veg...	1.000	Industry Spending Pattern

Events
New EventCopy EventPaste EventDelete EventEvent Options

	Sector	▲	Coefficient	Event Year	Local Purchase Percentage
▶	3003 Vegetables and melons	▼	0.019575	2013	2.88 %
	3004 Fruit	▼	0.078489	2013	3.30 %
	3006 Greenhouse, nursery, and floriculture prod...	▼	0.000340	2013	1.60 %
	3017 Fish	▼	0.016586	2013	0.34 %
	3020 Natural gas and crude petroleum	▼	0.000021	2013	5.98 %
	3022 Coal	▼	0.002538	2013	7.80 %
	3049 Electricity transmission and distribution	▼	0.005743	2013	97.90 %
	3050 Natural gas distribution	▼	0.006213	2013	61.38 %
	3051 Water, sewage and other systems	▼	0.001468	2013	99.96 %
	3062 Maintained and repaired nonresidential str...	▼	0.003945	2013	99.00 %
	3067 Flour	▼	0.003529	2013	0.43 %
	3068 Rice	▼	0.002185	2013	0.00 %
	3070 Wet corn	▼	0.006259	2013	12.36 %
	3071 Soybean and other oilseed processing	▼	0.000314	2013	6.07 %
	3072 Fats and oils refining and blending	▼	0.000527	2013	0.53 %
	3074 Beet sugar	▼	0.000468	2013	0.00 %
	3075 Sugar cane	▼	0.002463	2013	0.00 %

Number of Events in the Current Activity: 145
Im of Event Value: 0.83

Your IMPLAN Model is constructed through the Regional Multipliers and is complete.

Events New Event Copy Event Paste Event Delete Event Event Options ▾				
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14.5% Inputs

Low % Local

\$1,000 Vegetables in Salsa Jar

Impact Type	Labor Income	Value Added	Output
Direct Effect	\$799	\$1,162	\$6,895
Indirect Effect	\$551	\$1,244	\$1,976
Induced Effect	\$55	\$135	\$247
Total Effect	\$1,405	\$2,541	\$9,118

\$1,000 Vegetables in Salsa Jar

Description	Labor Income	Value Added	Output
Vegetable and melon farming	\$361	\$817	\$1,000
Management of companies and enterprises	\$2	\$39	\$195
Wholesale trade	\$41	\$116	\$188
Owner-occupied dwellings	\$0	\$40	\$56
Electric power transmission and distribution	\$4	\$11	\$52
Nonresidential maintenance and repair construction	\$12	\$16	\$48
Support activities for agriculture and forestry	\$29	\$31	\$46
Petroleum refineries	\$0	\$9	\$43
Real estate	\$1	\$30	\$42
Monetary authorities and depository credit intermediation	\$10	\$20	\$36

Impact Chain

- Longer value chain results in larger impacts
- Local purchases strengthen the value chain
- Opportunities to maintain workforce with nonlocal produce (seasonality)
- Additional non-farm sectors affected



Vegetables / Vegetables in Salsa

Impact Type	LI	VA	Output	LI	VA	Output
Direct Effect	\$361	\$817	\$1,000	\$799	\$1,162	\$6,895
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Resources

- Choices Magazine

<http://www.choicesmagazine.org/choices-magazine/theme-articles/community-economics-of-local-foods>

<http://www.choicesmagazine.org/choices-magazine/theme-articles/developing-local-food-systems-in-the-south>

<http://www.choicesmagazine.org/choices-magazine/submitted-articles/what-do-we-mean-by-value-added-agriculture>

- Local Food Systems Toolkit (USDA-AMS)

<https://www.ams.usda.gov/publications/content/economics-local-food-systems-toolkit-guide-community-discussions-assessments>

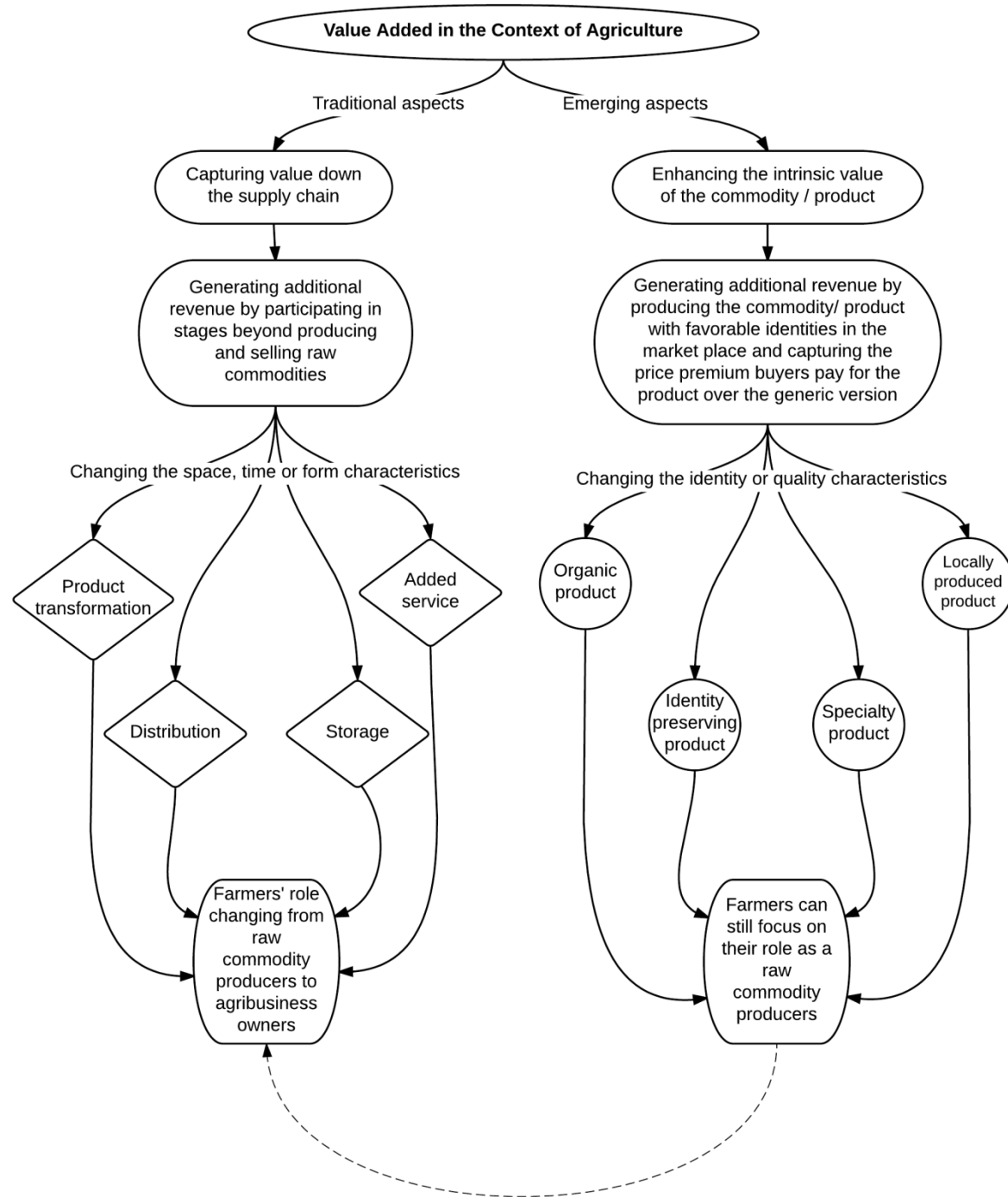
- eXtension Community, Local, and Regional Food Systems

http://articles.extension.org/community_and_regional_food_systems

The Ten Commandments of Community Leadership*

- I. Thou shalt create a vision for the future.
- II. Thou shalt develop a strategic plan.
- III. Thou shalt build a sustainable economy for the next generation.
- IV. Thou shalt seek public/private partnership.
- V. Thou shalt invest in education and training.
- VI. Thou shalt promote respect.
- VII. Thou shalt demonstrate a high standard of ethical behavior.
- VIII. Thou shalt value history, art, and culture.
- IX. Thou shalt prepare for a global environment.
- X. Thou shalt develop future leaders.

*Maury Forman and Michelle Harvey, 2007, Association of Washington Cities, Inc.
<http://ruralcommunities.tumblr.com>



Conceptual Framework of Value-added Agriculture

