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Diversified Farming and Food Systems





# Criteria for Small-Scale Definition

Land Size - physical size - hectares/acres

Quantity of productive unit – number of head of cattle, total kilos produced

**Labor Parameters** 

Share of family workers

Economics – gross or net revenue

Connection to markets - subsistence, self-consumption, market orientation

Input driven

# **Small-Scale Farmers**

### Comparing the original and revised typologies

Farm type	Operator's primary occupation <sup>1</sup>	Original typology	Revised typology
		Farm size measured by gross farm sales	Farm size measured by GCFI
Small family farms <sup>2</sup>	Varies	Less than \$250,000	Less than \$350,000
Retirement farms	Retired	Less than \$250,000	Less than \$350,000
Off-farm occupation farms <sup>3</sup>	Nonfarm	Less than \$250,000	Less than \$350,000
Farm occupation farms:			
Low-sales	Farming	Less than \$100,000	Less than \$150,000
Moderate-sales <sup>4</sup>	Farming	\$100,000- \$249,999	\$150,000-\$349,999
Midsize family farms <sup>2</sup>	Not a criterion	Category not used	\$350,000-\$999,999
Large-scale family farms <sup>2</sup>	Not a criterion	\$250,000 or more	\$1,000,000 or more
Large farms	Not a criterion	\$250,000- \$500,000	\$1,000,000-\$4,999,999
Very large farms	Not a criterion	\$500,000 or more	\$5,000,000 or more
Nonfamily farms <sup>2</sup>	Not a criterion	Not a criterion	Not a criterion

<sup>&</sup>lt;sup>1</sup>Occupation at which the operator spent 50 percent or more of his or her work time.

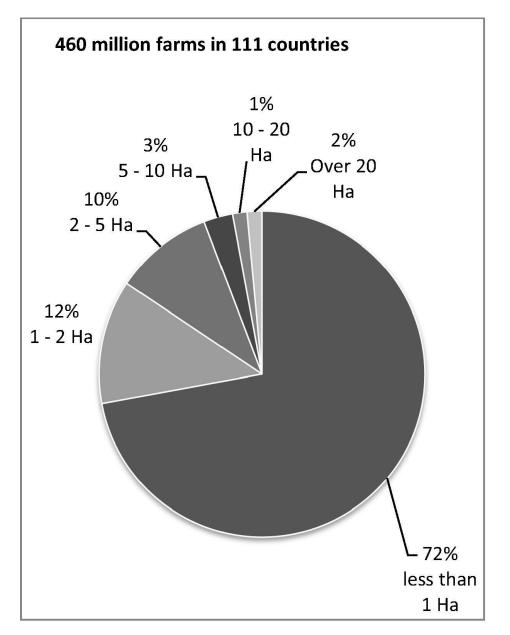


<sup>&</sup>lt;sup>2</sup>Family farms include any farm where the majority of the business is owned by the operator and individuals related to the operator. Nonfamily farms do not meet that criterion.

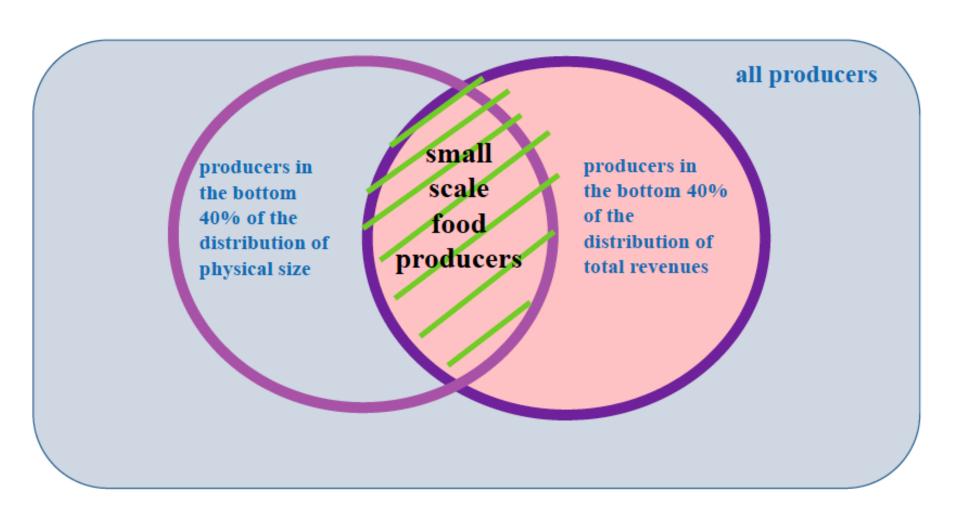
<sup>&</sup>lt;sup>3</sup>Formerly residential/lifestyle farms.

<sup>4</sup>Formerly medium-sales farms.

# Farms Across the Globe



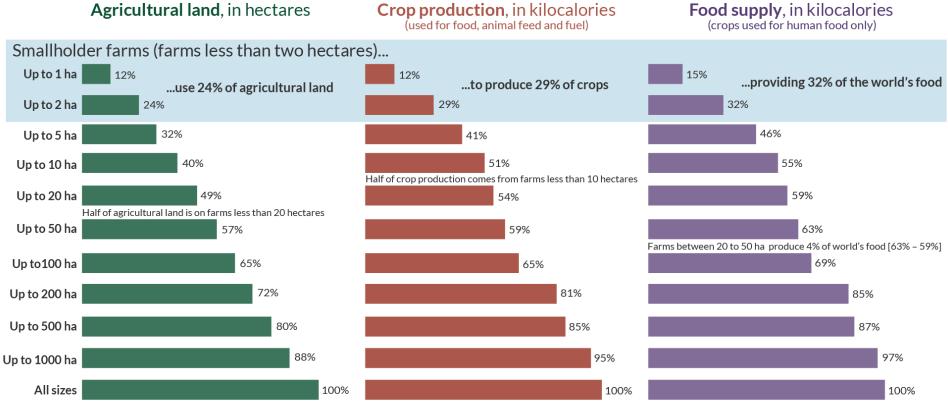
# FAO tried to come up with an easy definition



## Smallholder farms produce one-third of the world's food

The cumulative share of the world's agricultural land, crop production and food supply, broken down by farm size.





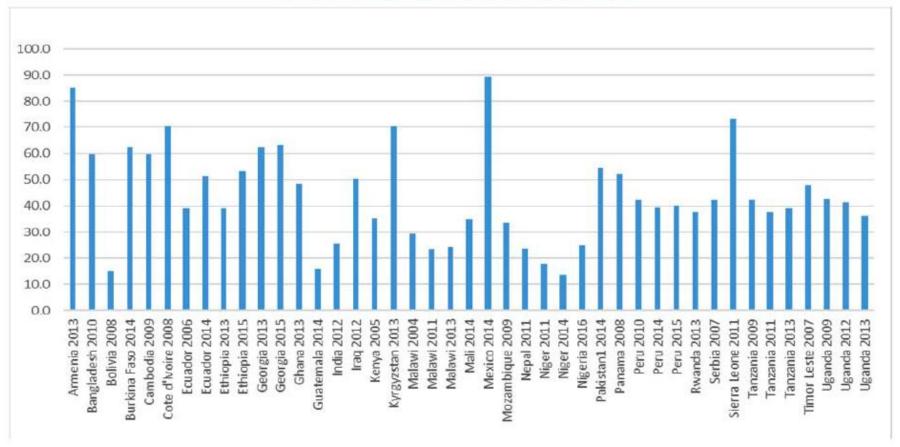
Source: Vincent Ricciardi et al. (2018). How much of the world's food do smallholders produce? *Global Food Security*. OurWorldinData.org – Research and data to make progress against the world's largest problems.

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- "They do so using around one-quarter (24%) of the world's agricultural land. They account for a bit more crop production than land use because smaller farms tend to achieve higher yields."
- "smaller farms tend to <u>allocate a larger share</u> of their crops towards food, rather than animal feed or biofuels."

https://ourworldindata.org/smallholder-food-production

### Percentages of small-scale food producers in selected countries, based on the proposed criterion



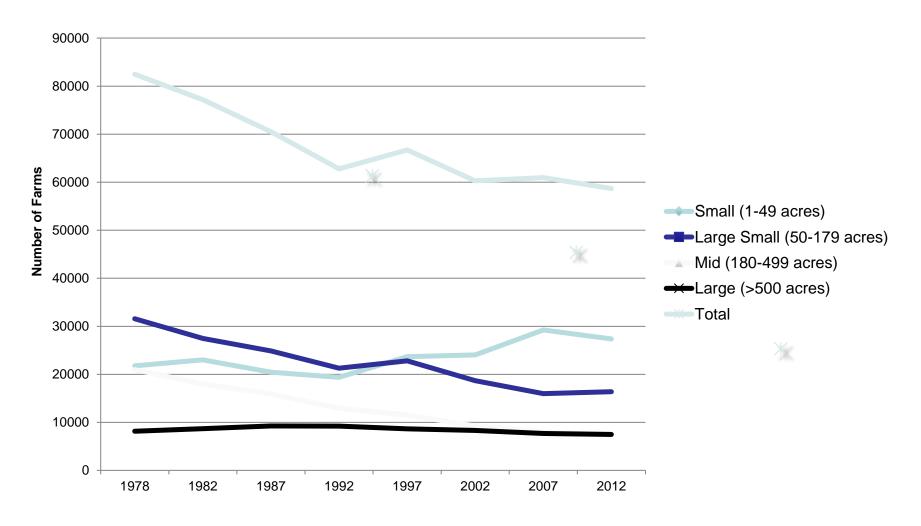
# 2017 Indiana Agriculture Overview

Economic Characteristics (Value of Farm Sales)	Number of Farms
Less than \$2500	<mark>18,583</mark>
\$2500 to \$4999	<mark>4,660</mark>
\$5000 to \$9999	<mark>5,396</mark>
\$10,000 to \$24,999	<mark>6,092</mark>
\$25,000 to \$49,999	<mark>4,117</mark>
\$50,000 to \$99,999	<mark>4,069</mark>
\$100,000 to \$499,999	<mark>8,398</mark>
\$500,000 or more	5,334

Small farms (<\$350,000 Gross Farm Sales) account for 85% of all farms in Indiana

Source: 2017 US Agricultural Census Data

# Number of Farms in Indiana per Size Class



Small and Large Small make up 75% of IN farms

Source: 2012 Agricultural Census Data

# Number of Farms in Indiana per Size Class

Farm Size	Number of Farms		
1 to 9 acres	<mark>7,622</mark>		
10 to 49 acres	<mark>18,665</mark>		
50 to 179 acres	<mark>15,377</mark>		
180 to 499 acres	7,419		
500 to 999 acres	3,529		
1000 to 1999 acres	2,585		
2000 acres or more	1,452		
Total	56,649		

Small farms (<180 acres) account for 74% of all farms in Indiana

Source: 2017 US Agricultural Census Data

# Complications

- Arbitrary thresholds
- Simplistic
- Availability of data
- Definition of data in different countries
- Includes all farms
- Relevance for all countries











# **Diverse Farmers**

Highly valued within their individual communities as the voice and positive face of agriculture that resonates with the public at large

Diverse and lightly capitalized farming operations

One or more of the principal operators maintains off farm employment

Often engaged in the education and awareness building about agriculture of the public (farmers markets, CSA's, etc)









If you are less than 55 years old, you are more likely to own either a small or a large small farm



# Beginning Farmers



- 22% of all farms in USA met the definition of a beginning farm (principal operator has operated the same farm for < 10 years)</li>
- In decline for last 3 decades
- Only 6% of farmers are less than 35 years old
- Why do you think this is occurring?
- What is the "right" or "good" number of beginning farmers?
- Barriers to entry:
  - Farming expertise
  - Access to land
  - Access to capital



# Small Farms in Indiana

In Indiana more than 75% of all farmers own less than 200 acres (does not include urban farmers)

Many voices but not unified

Local economy is impacted

Generation of value-added cottage industries

High land prices for agricultural land, smaller farms are more obtainable for new or beginning farmers (military veterans)

Local Food movement (people want to know who produced the food they consume)

# Benefits of Small-Scale Farming











The market value per acre of small farms (\$1844/acre) is two times higher than farms greater than 2000 acres (\$734/acre). Net cash income per acre is also slightly higher (\$289 vs \$210)









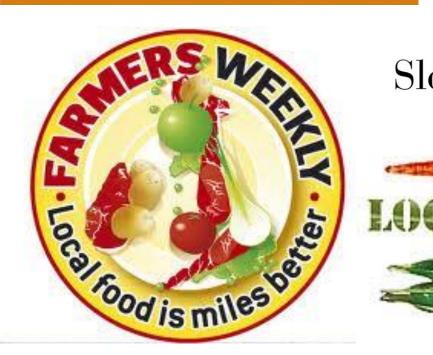


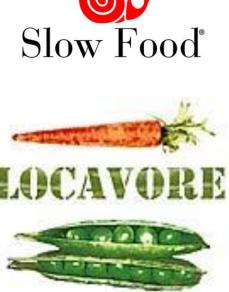














# **Local Food Definition**

- Sold directly to consumers through farmers markets, roadside stands, and community supported agriculture
- Can also be sold at supermarkets and wholesale, to restaurants or school procurement



### WHY LOCALLY PRODUCED FOOD SHOULD

### ALWAYS BE YOUR FIRST CHOICE

### 1. It Reduces the Distance That Food Travels

Food miles not only consume energy, but they contribute to poor air quality too.



### 2. It's Healthier

The ripening process of fruits and vegetables is usually delayed in transport thanks to cold temperatures or gas, and consequently, fruit and vegetables may contain fewer nutrients.



### 3. There is Less Packaging Involved

If you buy local, most of the items being sold have significantly less packaging.

### 5. Genetic Diversity is Protected

Locally grown produce rarely uses mass production technologies that are common in commercial farming.

### 4. It Helps the Local Economy

Spending locally ensures that your money is reinvested in the local economy, which results in improvements in the community.





Table 1

Direct Farm Sales of Food, by Type of Buyer, 2015

	\$ billion	%
Consumer	3.0	35
Retailer	2.4	27
Institution and local intermediary business	3.4	39
Total	8.7	100

Source: USDA NASS, 2015 Local Food Marketing Practices Survey.

Top States in D	irect
(\$ millions)	
California	2,869
Michigan	459
New York	441
Pennsylvania	439
Wisconsin	431
Texas	357
Vermont	250
Massachusetts	229
Virginia	217
lowa	194

### Farms sell directly to:

Consumers (35 percent of direct sales in 2015)
Includes sales through farmers markets, onsite farm stores, roadside stands, CSA (Community Supported Agriculture) arrangements, online sales, pick-your-own operations, mobile markets, and other means.

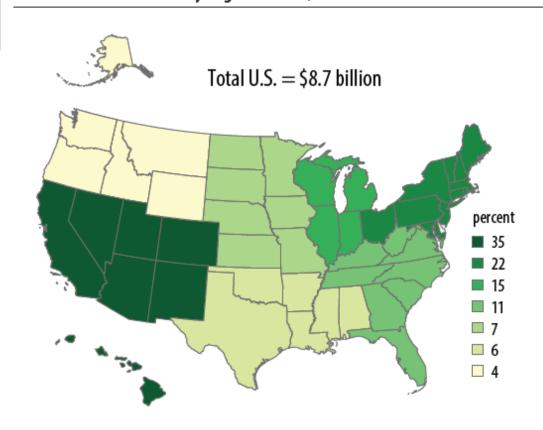
Retailers (27 percent of direct sales in 2015)
Includes supermarkets, supercenters, restaurants, caterers, independent grocery stores, and food cooperatives.

Institutions and Intermediary Businesses (39 percent of direct sales in 2015)

Includes institutions such as schools, colleges, universities, and hospitals as well as intermediary businesses such as wholesalers, distributors, processors, etc., that market locally or regionally branded products.

Fig. 1

Direct Farm Sales of Food by Regional Share, 2015



Source: USDA NASS, 2015 Local Food Marketing Practices Survey.

Table 2

Direct Sales to Consumers, by Marketing Practice and Number of Farms, 2015

	Sales		No. of
	\$ million	%	Farms
On-farm store	1,322	44	51,422
Farmers' market	711	23	41,156
Roadside stand away from farm	236	8	14,959
Community-supported agriculture (CSA)	226	7	7,398
Online	172	6	9,460
Other (pick-your-own, mobile market, etc.)	360	12	39,765
Total	3,027	100	114,801*

<sup>\*</sup>Is less than the sum of individual practices because a farm may use multiple practices. Source: USDA NASS, 2015 Local Food Marketing Practices Survey.

# Total Direct Marketed Sales of Food and Number of Farms Selling Directly - Indiana

Number of Operations = 4433

Direct Sales = \$103,726,596

Years Producing and Selling Directly:

< 5 years = 920 operations

6 - 10 years = 397

11 - 20 years = 670

> 21 years = 1658

Source: USDA NASS, 2015 Local Food Marketing Practices Survey

# Locally Grown Food

Supporting local families and businesses

Builds community and trust in local farming systems

Increases local economy and multiplier effect (2-3 times higher than a non-local business

Presernves open spaces and benefits to the environment

