Interactions between drivers of agricultural production and their potential to direct the development of sustainable systems

Southeast:
- Traditional row crop (cotton, corn, soybeans, peanuts)
- Animal (cattle, catfish, confinement poultry)
- Hay

Northeast:
- Traditional row crop (potato, corn)
- Grass-fed beef
- Organic Vegetable
- Organic Dairy
Traditional Crop and Livestock Production

- Open Markets
- Contract Sales
- Conservation
- Management Practices
- Conventional
- Specialized
- Products
- Diversified

Legend:
- ▲ 1900
- ◇ 1933
- ▲ 1950
- ▲ 1970
- ▲ 1996
- ▲ 2006

Years:
- 1900
- 1933
- 1950
- 1970
- 1996
- 2006
Traditional row crop: cotton, corn, soybeans, peanuts, potatoes
Traditional livestock: cattle, poultry

Benefits:
Risk reduction through commodity payments and contracts

Detriments:
Limited flexibility
Development of Niche Products: Catfish

- Open Markets
- Contract Sales
- Conservation
- Management Practices
- Conventional
- Specialized
- Diversified

- 1950
- 1970
- 1996
- 2006
Development of Niche Products: Organic

- Open Markets
- Contract Sales
- Conservation
- Management Practices
- Conventional
- Specialized
- Products
- Diversified
Developing Niche Markets:
  Catfish
  Grass-fed beef
  Organic (vegetable, dairy, etc.)

Benefits:
  Increased flexibility

Detriments:
  Increased risk

Approach to risk reduction
  Aggressive market development
  Open-ended contracts
Development of Niche Products: Catfish

- **Open Markets**
- **Contract Sales**
- **Conservation**
- **Management Practices**
- **Conventional**
- **Specialized**
- **Diversified Products**

Legend:
- Black triangle: 1950
- Black triangle: 1970
- Red triangle: 1996
- Green triangle: 2006

Graph shows the development of niche products from 1950 to 2006, with a focus on catfish.
Two predominant drivers:

Social – Internal
Economic

Two secondary drivers:

Education and access to information
Community support
Towards sustainability:

Must produce

Must be economically feasible

Must preserve natural resources
Towards sustainability:

- Recognize the need for a sustainable agro-ecosystem
- Identify ecosystem services and their value
  - Scale
  - Economics of implementation
- Use drivers to alter the system
Towards sustainability:

Key Drivers:
  Internal Social
  Economic

Increase producer knowledge and access to information

Increase consumer knowledge and access to agriculture

Enhance the development of local urban markets