



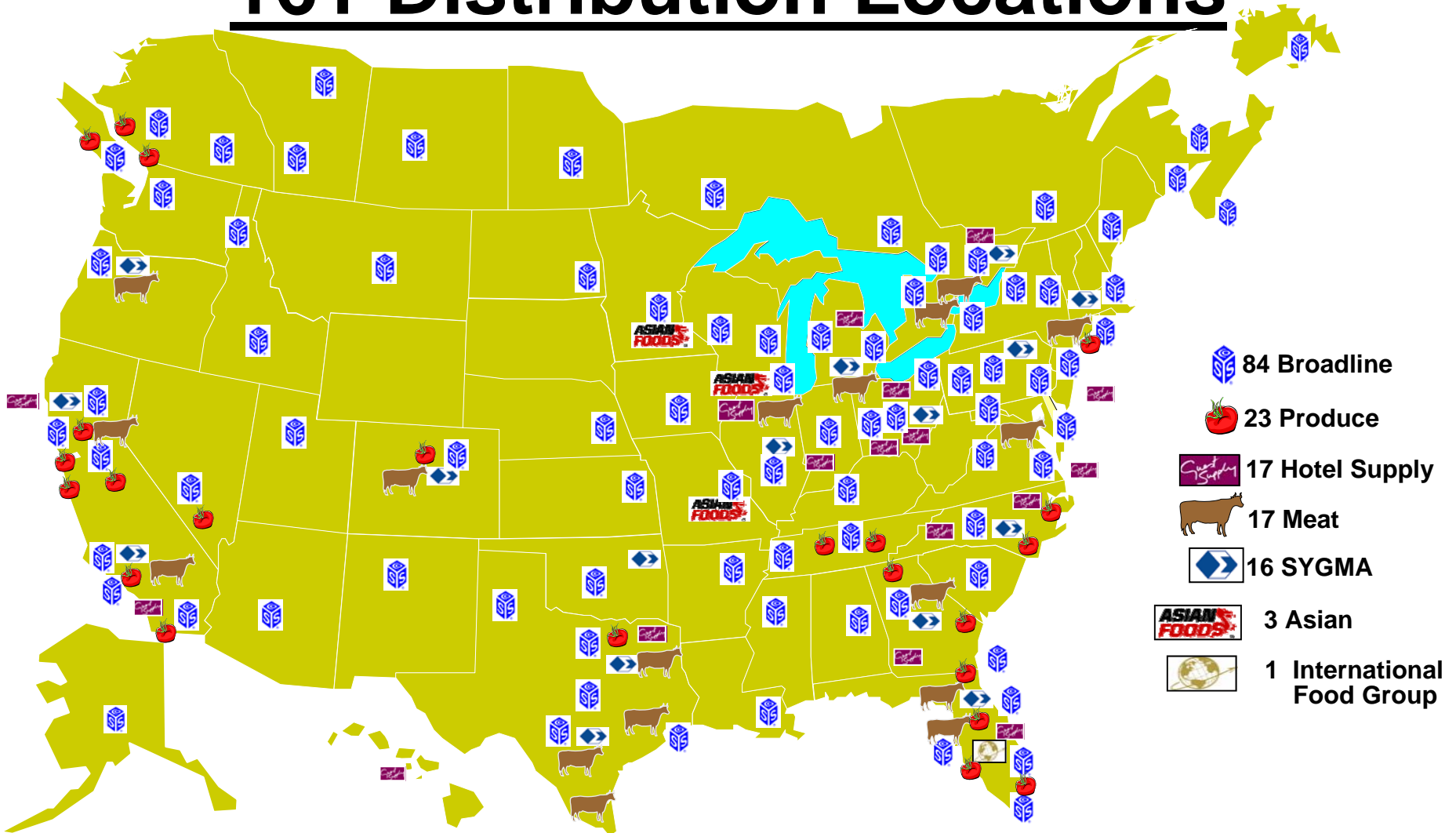
# Sustainable Agriculture



# **SYSCO Profile**

- ❑ North America's #1 foodservice marketer & distributor
- ❑ FY 2007 sales of \$35 Billion
- ❑ Serve Foodservice & Hospitality market of app. \$210 B
- ❑ Approximately 390,000 customers
- ❑ 161 locations throughout North America
- ❑ More than 300,000 products, including app. 40,000 SYSCO Brand products
- ❑ About 8,000 marketing associates
- ❑ SYSCO Brand is about 50% of sales
- ❑ 2000 SYSCO Brand Suppliers

# 161 Distribution Locations



# What's the fuss about?

- Excess *PHOSPHORUS* in 75% stream sites tested, excess *NITRATES* in 20% of wells
- 75% of streams w/5 or more detectable *PESTICIDES*
- The State of the Nation's Ecosystems, Heinz Center, 2002

# What's the fuss about?

- 60% of coastal rivers and bays are nutrient degraded
- More than 20,000 of ocean-critical habitat disappears annually
  - America's Living Oceans,  
Pew Ocean's Commission, 2003



# What's the fuss about?

- **An average of 91 chemical contaminants in the human body**
- **Of 167 chemicals found, 76 cause cancer , 94 are toxic to nervous systems and 79 cause birth defects or abnormal development**

## **- Body Burden**

**Environmental Working Group,  
Mt. Sinai**

**School of Community Medicine  
and Commonwealth, 2003**





# Corporate Social Responsibility

- Diversity
- Community Involvement
- Regulatory Compliance
- Sustainability (Agriculture Sustainability)
- Fair work/Fair Pay
- Food Safety
- Worker Health and Safety
- Family Access to Healthcare
- Annual Reports

# Sustainability



*Meeting our needs without  
compromising the ability of  
future generations to meet  
their needs*

*- Brundtland Commission 1987*



# **SUSTAINABILITY**

**Social  
Equity**

**Animal  
Welfare**

**Resource  
Distribution**

**Corporate  
Ethics**

**Fair  
Labor  
Practices**

**Economic  
Justice**

**Fair  
Trade**

**Worker  
Safety**

***Environmental  
Stewardship***

**Eco-  
efficiency**

**Soil, Water, Wildlife  
Conservation**

**Biodiversity**

**Food  
Safety**

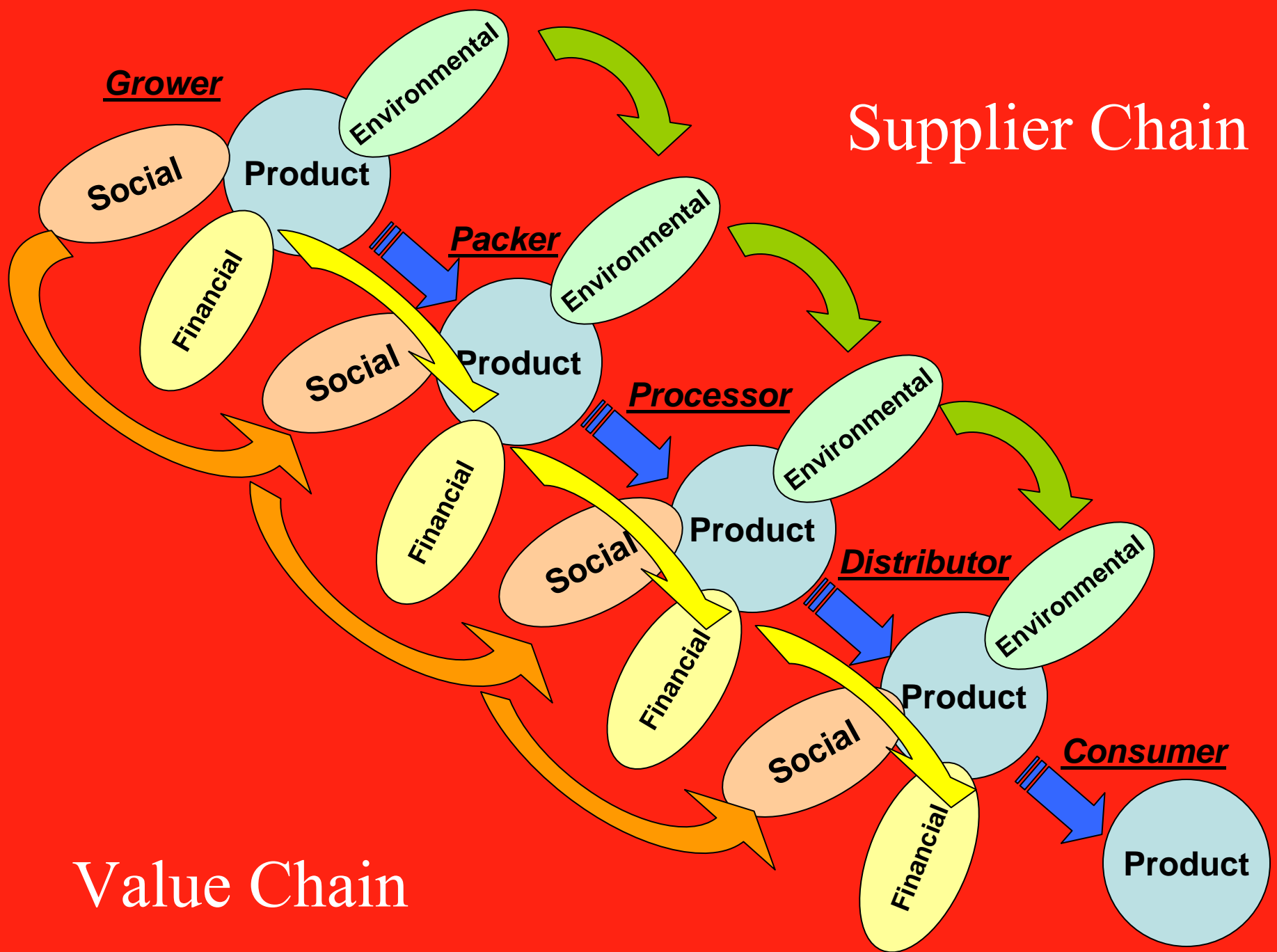
**Body  
Burden**

***Personal  
Health & Wellness***

**Nutrition**



# Supplier Chain



# Sustainable Model

- ✦ The Ultimate Goal Does not exist
  - ✦ What does Sustainability look like?
- ✦ Changing Model that evolves over time
- ✦ Occasionally conflicts with regulatory and industry expectations.
- ✦ Can develop into a new thought process and way of business.

# A Change in Thought Process for Technical Professionals

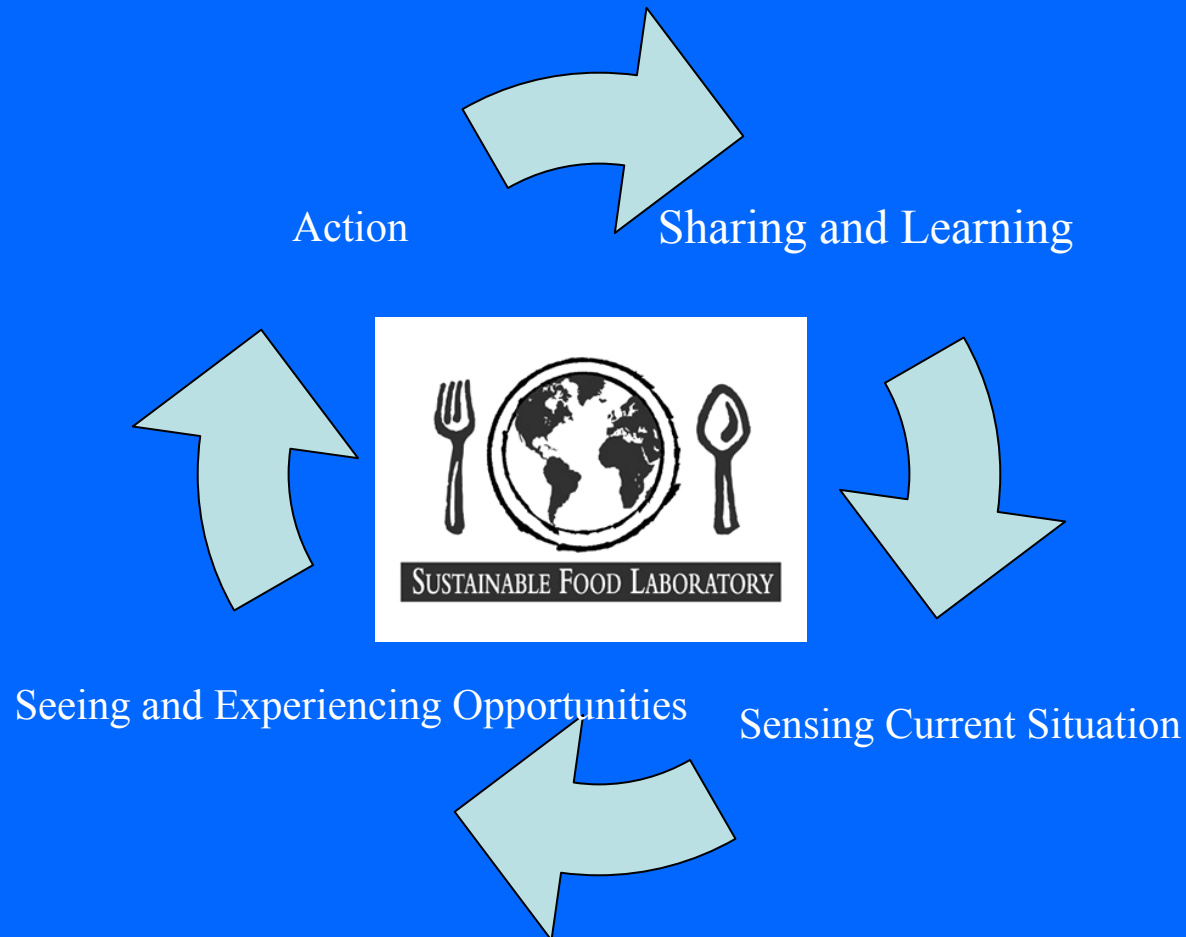
## Science

- End Result
- Hypothesis to Conclusion
- HACCP
  - Seven steps with an end result, for now.
- Measure Results with hard facts. Yield, Matrix, Measure Success

## Sustainability

- Building Partnerships
- Managing the Process
- Seeing the System
  - Learning Journey's
- Integrating What is Learned into the System.

# Food Lab Model



# AGRICULTURAL SUSTAINABILITY

SYSCO is taking a leading role in support of a new vision for agricultural practices designed to protect the land and environment. This new vision is a result of farming practices that began in post World War II America. At that time, global demand for agricultural commodities placed increased pressure on agricultural practices, thus productivity gains were increased by greater mechanization and utilization of new technologies. Increased chemical use and specialized farming practices that favored maximized production were implemented, creating some unintentional and some unfortunate consequences.

These concerns include soil erosion, chemical contamination of the aquifer, and higher levels of pesticide residual. Additional social ramifications include the decline in the number of family farms and the economic and social erosion of rural communities.

It is SYSCO's goal to ensure that highly differentiated products are successfully produced for our future generations. To that end, our ultimate goal is to foster the success of highly differentiated products that are profitable to all participants in the supply chain and incorporate farmer ownership and control.

Through a series of initiatives, SYSCO is contributing to environmental stewardship and rural social vitality.

## INTEGRATED PEST CONTROL

Using environmentally-friendly pesticides only as necessary

## BUY LOCAL, SELL FRESH

A local food system initiative supplying natural and organic food items

## AG-IN-THE-MIDDLE PROCUREMENT

Family-owned farms producing value-added products

## BUSINESS COALITION FOR MORE SUSTAINABLE FOOD

Ensuring sufficient productivity in the future

*Quality*  
SYSCO  
*Assurance*

# Definitions

- “Integrated Pest Management: Integrated pest management is a sustainable approach to managing pests by combining biological, physical, and chemical tools in a way that minimized economic, health, and environmental risks.” National Coalition on Integrated Pest Management (NCIPM), 1994
- “IPM is the management of pests by integrating host resistance and cultural, biological and chemical controls in a manner that minimizes economic, health and environmental risks.” Crop Protection Manager, January 1997



# Definitions

- “Biointensive IPM is a systems approach to pest management based on an understanding of pest ecology, including accurate diagnosis of pest problems, reliance on preventative tactics and biological controls to keep pest population within acceptable limits, with reduce-risk pesticides as a last resort if other tactics are not adequate.” Paraphrased from Pest Management at the Crossroads, Consumers Union, 1996

# Integrated Pest Management

- 160 Supplier locations of canned and frozen fruit and vegetable processors.
- Program developed with industry and the IPM Institute of North America
- Program Development in 2004
- Supplier Adoption 2005
- Audits of Supplier Programs 2005-06
- Stewardship Indicator Reporting in 2006

# Minimum Standards

- ◆ No Biosolids used
- ◆ GMO's not grown for SYSCO Production
- ◆ Minimum Nutrient and Pesticide Application Record Requirements

# Scored General Standards

- **Identify, Monitor and Protect Ecologically Sensitive Areas**
- **Environmental Emergency Plans**
  - **Drift Management**
  - **Soil Erosion**
  - **Soil Quality**
- **Water Use Efficiency**

# Processor Crop Specific Standards

- ☛ IPM Advisory Team
- ☛ Access to IPM Information
- ☛ Key Pests Identified
- ☛ Identification of chemical and Non-chemical strategies
- ☛ Effective Scouting Techniques
- ☛ Science Based Thresholds
- ☛ Pesticide use by Toxicity
- ☛ Pesticide tracking and reporting system
- ☛ Nutrient tracking and reporting system
- ☛ IPM Training
- ☛ Strategies to delay pesticide resistance

# SYSCO Program Statistics

## Written Programs

- There are 78 companies representing 168 processing facilities of SYSCO Brand Canned and Frozen Fruit and Vegetable involved in the SYSCO Sustainable/IPM Program.
- Of the 168 processing facilities 98% have submitted a written program. Of the written programs submitted 82% have submitted a written program that has scored “acceptable with changes” or better (50% or better). Finally, 65% of the programs submitted have scored “fully acceptable” (70% or better).

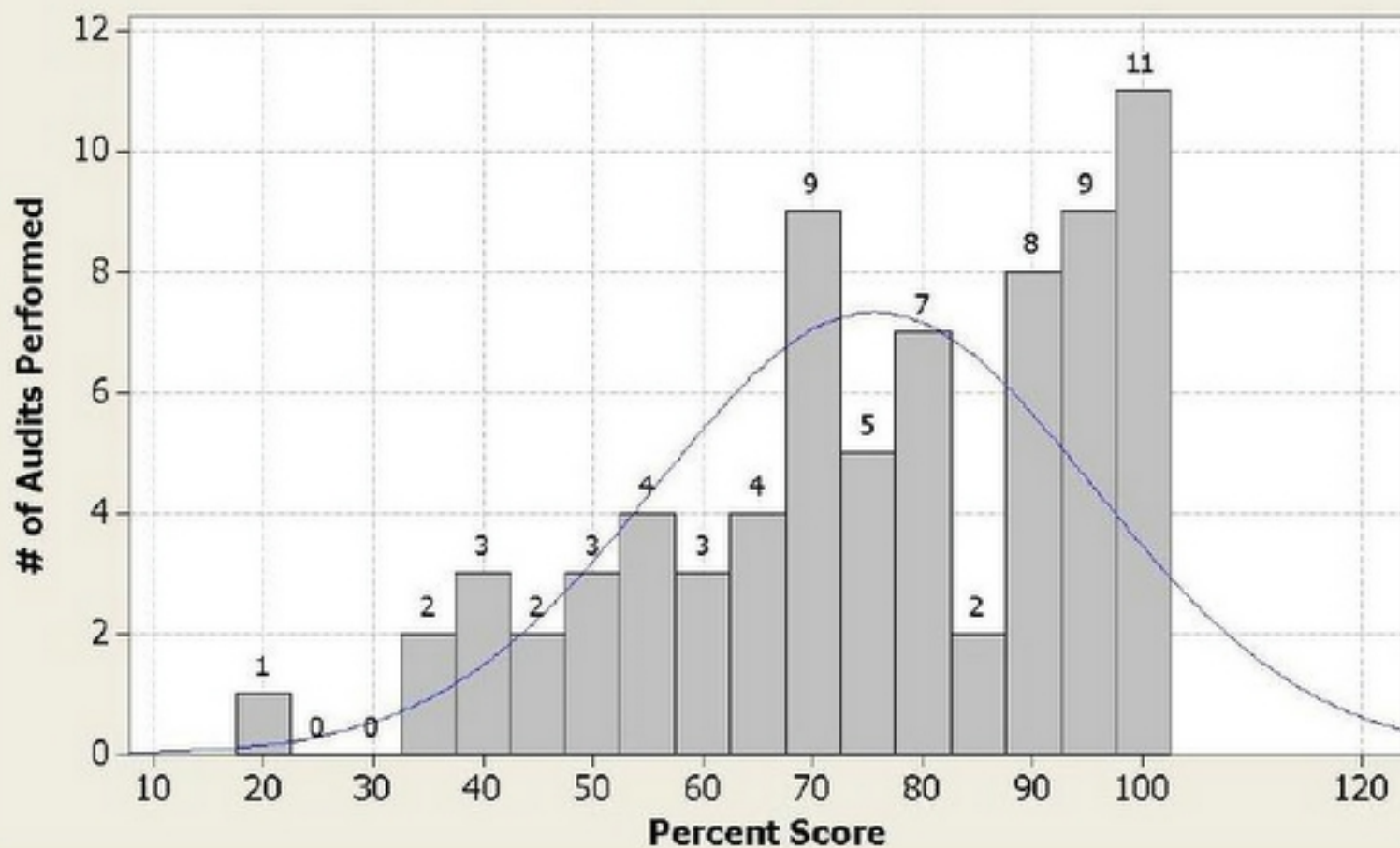
## 2005 Processing Season Audit Score Distribution



Gaussian (Bell) Curve Derived from IPM Data

Publish Date: 05.16.06

### Summary of Combine Audits





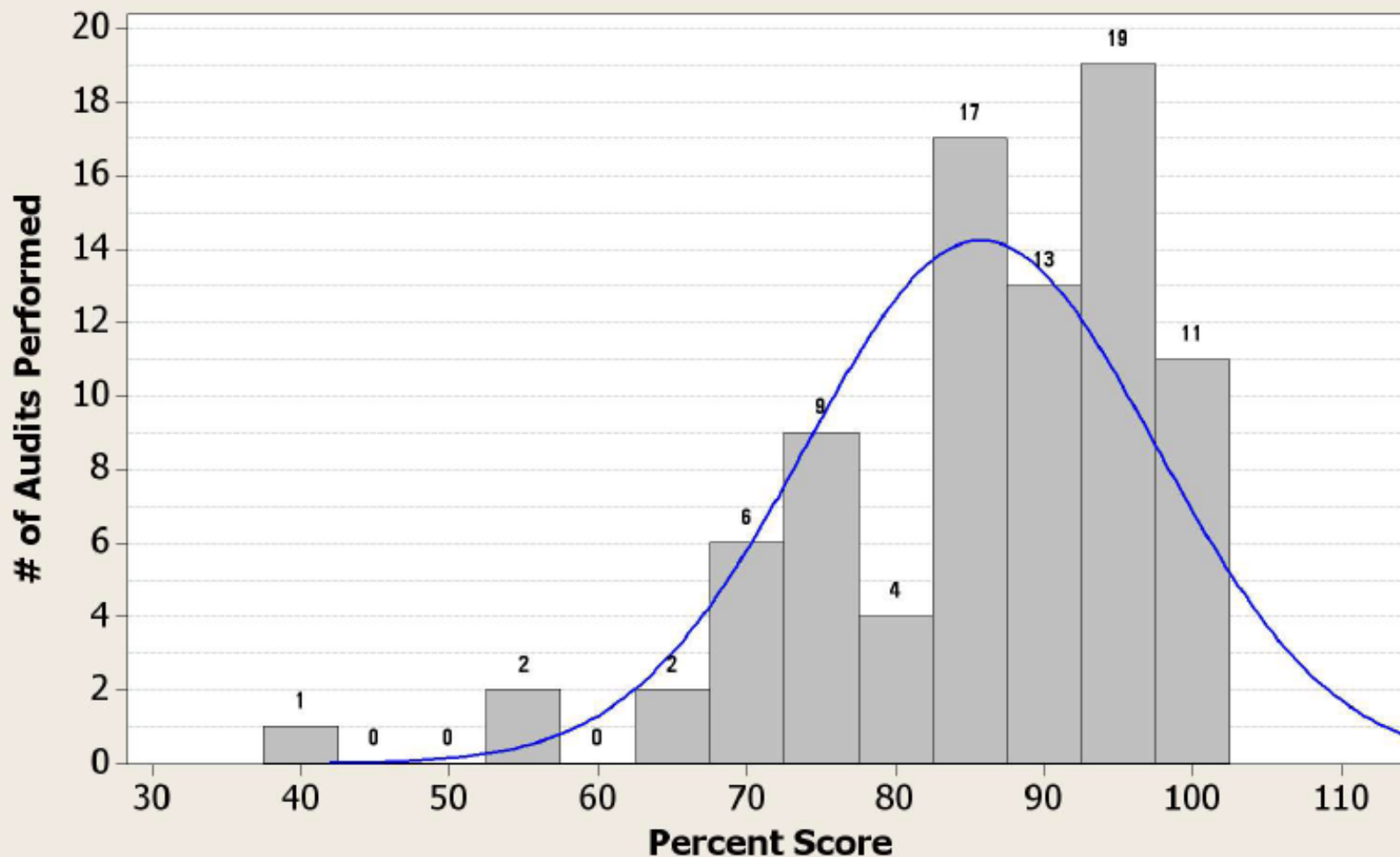
## 2006 Processing Season Audit Score Distribution



Gaussian (Bell) Curve Derived from IPM Data

Publish Date: 07.19.07

### Summary of Combined Audits





# Key findings, conclusion

	2005	2006	
Total acres in program, 2005	375,812 acres	512,712	35%
Total lbs. of pesticide avoided using IPM	307,321	200,000	
Total reused or recycled	155 million tons	185 million	19%
Total Recycled	10.9 million lbs.	14.8	35%
Fertilizer Avoided		22 million lbs.	

# IPM Works at Schools too!

**IPM contract specs and pest management contractor oversight reduces pesticide use and pest complaints by 90%.**

**Greene and Breisch, J. Econ. Entomol., 2002**

**IPM schools had little pesticide residue vs. conventionally treated schools which had residues on baseboards and walls.**

**Williams et al., J. Econ. Entomol., 2005**

**IPM training model in ten school districts reduced pesticide applications by 71% and pest complaints by 78%.**

**Gouge et al., American Entomologist, 2006**



# Other Activities at SYSCO

- ▶ Sustainable Seafood Development
- ▶ CSR Audits for International Supply
- ▶ GAP Audit Database Development
- ▶ Bio-diesel/Natural Gas Trucks
- ▶ EPA Recognized Low Toxicity Cleaning Chemicals



# Honduras

- Macro Economic Growing but Increased Poverty
- 55% Urban and 70% Rural under extreme Human Deprivation Conditions (\$30.57/Month)
- Equal Distribution is an issue
- Hurricane Mitch (1995)
- Out of 7 million born in Honduras, 1 million live outside the country. (US, Spain, Chile, Italy)
- Remittances are a major contributor to economy. \$3 Billion in 2008.







# International Sustainable Agriculture

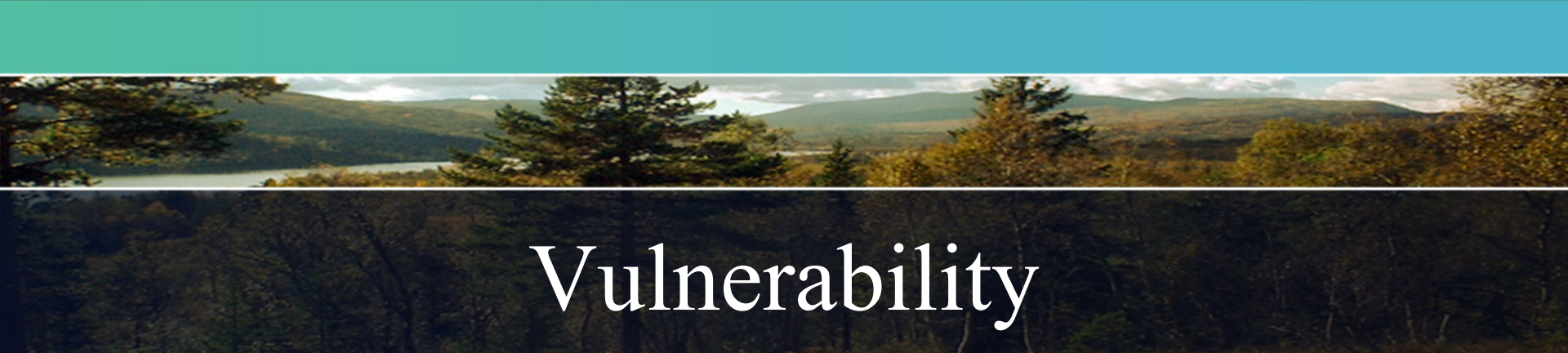
- Oxfam Model
  - Global Player
  - Sustainable Livelihoods' Framework
- Central America Example





# Capacity Building

- Human Capital
- Natural Capital
- Financial Capital
- Social Capital
- Physical Capital



# Vulnerability

- Shocks
  - Earthquake, Hurricanes, etc
- Trends
  - Global Warming, Consumer Trends
- Seasonal
  - Time of year, Market Trends



# Agriculture Development Continuum

1. Non Land Owners, work for others.
2. Basic Production (Beans, Corn) Food Security.
3. Family Expansion (Garden Market)
4. Production for Local Market
5. Agriculture Coordinating and Aggregation among Farmers (Year Round Supply)
6. Consolidating and Market Penetration. (Cooling Facility, Packing, Sorting)
7. Mature into Further Processed Markets
  - Further raw material consolidation
  - Product Differentiation
  - Product Innovation
8. Market Expansion and Maturity



# Dimensions of Continuum

- ▶ Organization
- ▶ Financial
- ▶ Capacity
- ▶ Technical (Breeding/Ag/Energy)
- ▶ Environmental
- ▶ QA/Food Safety
- ▶ Packaging



















# Agriculture Development Continuum

1. Non Land Owners, work for others.
2. Basic Production (Beans, Corn) Food Security.
3. Family Expansion (Garden Market)
4. Production for Local Market
5. Agriculture Coordinating and Aggregation among Farmers (Year Round Supply)
6. Consolidating and Market Penetration. (Cooling Facility, Packing, Sorting)
7. Mature into Further Processed Markets
  - Further raw material consolidation
  - Product Differentiation
  - Product Innovation
8. Market Expansion and Maturity



# Hartman Group

- Website:

<http://www.hartman-group.com>

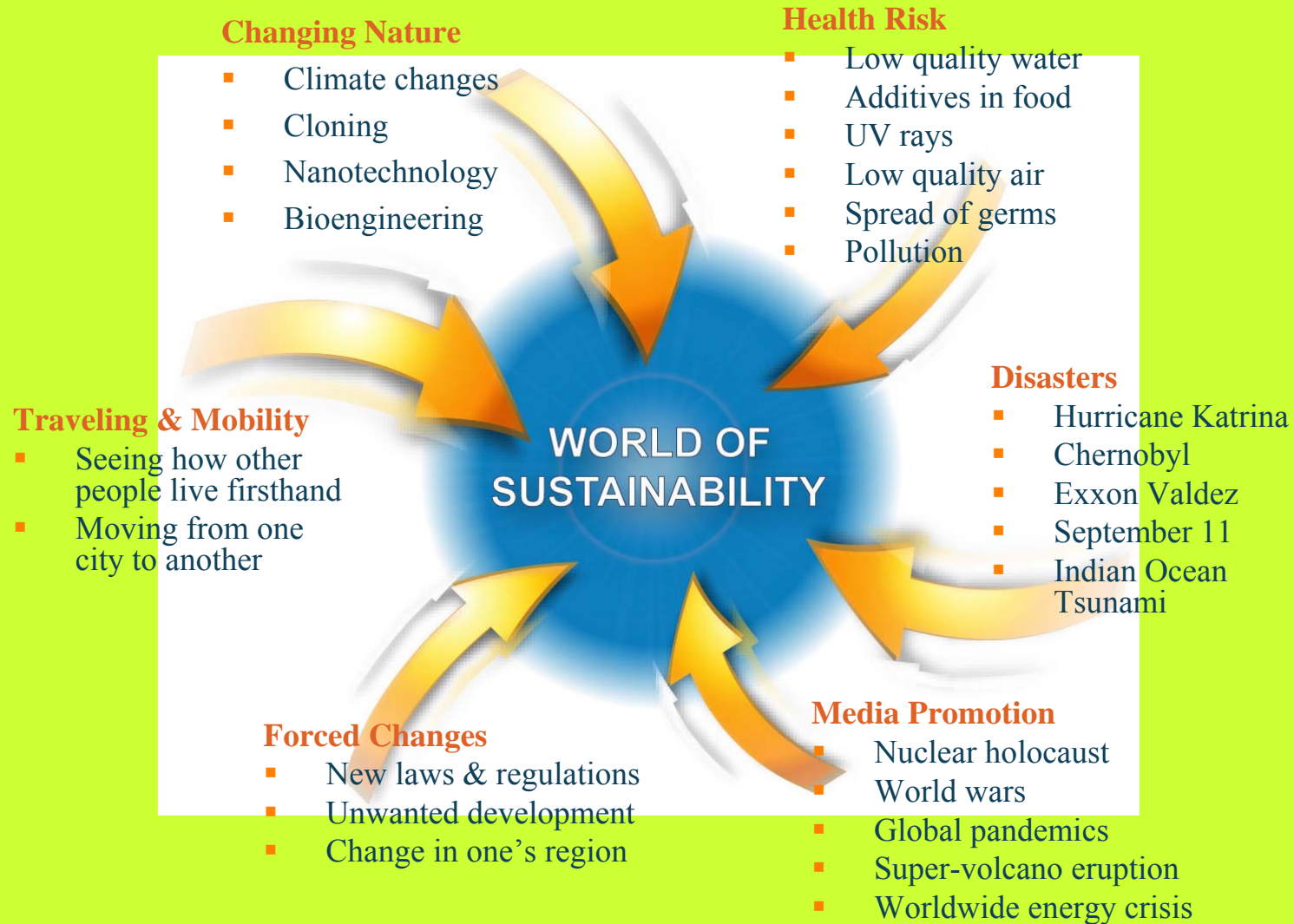


# Sustainability is NOT a Household Word

- ✗ Though widely used in business circles, the term “sustainability” is little used in consumer circles
  - ✗ Just over half (54%) of consumers claim any familiarity *at all* with the term sustainability (and most of these consumers cannot define it appropriately upon probing)
  - ✗ Very few consumers have deep or extensive knowledge of expert discourses related to sustainability
    - ✗ Only 5% indicate they know which companies support sustainable values
    - ✗ 12% indicate they know where to buy products with sustainable values
- ✗ As a marketing term, sustainability has limited traction; it is not a household word



# Key Triggers to Sustainability Consciousness



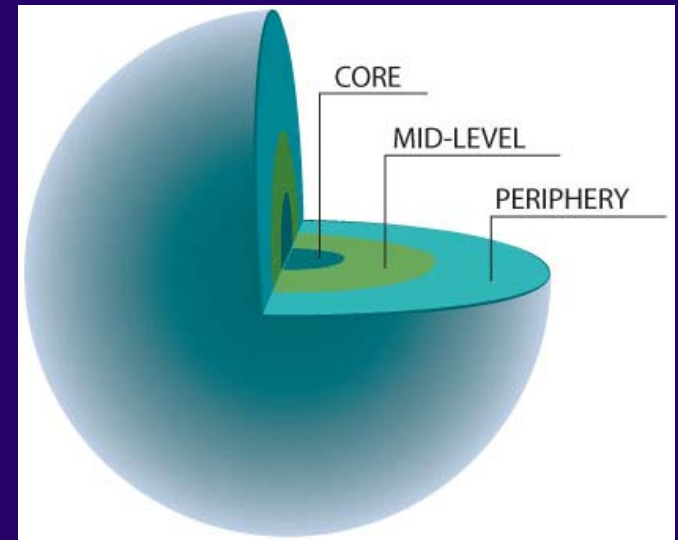
# Risk and Sustainability Consciousness

- Sustainability consciousness can be conceptualized as **zones of risk awareness** centering on the body and ranging outward to the broader environment



# The World Model

- ⇒ The Hartman Group segments and analyzes consumers according to their lifestyle orientation within a “world” of activity
- ⇒ Segments vary according to the **intensity** of involvement in that world
- ⇒ Periphery consumers are just starting to gain experience and knowledge
- ⇒ The **majority** of consumers are in the Mid-level
- ⇒ The Core are the smallest segment and most intensely involved - early adopters, trendsetters and evangelists



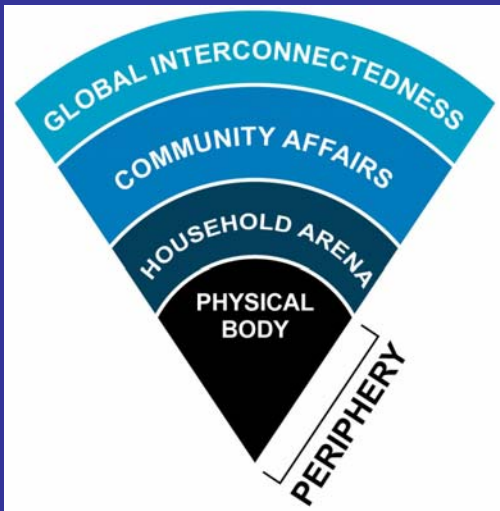


# The World of Sustainability

- The World of Sustainability can be segmented according to how consumers make sense of risks
- A small percentage (8%) of consumers do not participate in the World of Sustainability in any meaningful way

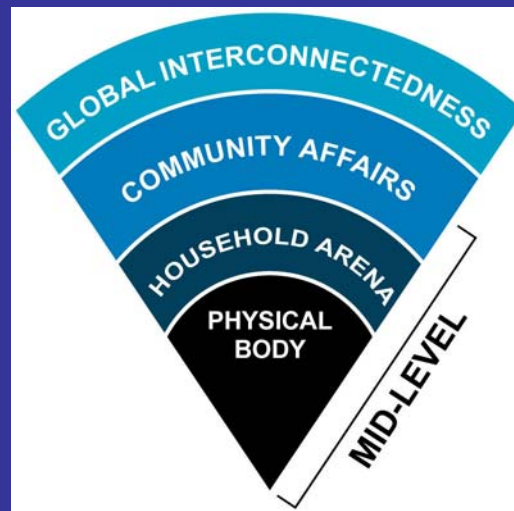
## Periphery Consumers (16%)

tend to concentrate their awareness of risks on their personal lives and bodies



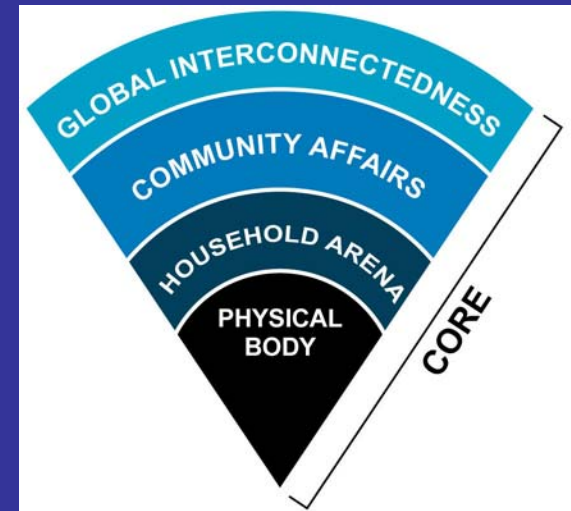
## Mid-level Consumers (60%)

tend to focus on the body but include their surroundings at home and in society



## Core Consumers (16%)

tend to extend their risk awareness outward from the body to broader environments



# Meet Linda: PERIPHERY CONSUMER

- © Wants gas prices to rise even higher so she has a “good reason” to trade-in her SUV
- © Drinks water from the tap unless it smells and/or tastes “bad”
- © Does not believe “the hype” about organic food
- © Believes climate change might be happening but defers to the experts
- © Travels with a waterless hand sanitizer because she wants to avoid other peoples’ germs
- © Just bought an energy efficient dishwasher because of a rebate
- © Curbside recycles because “it’s just what you do”



# Meet Dan: MID-LEVEL CONSUMER

- ✓ Lacks deep knowledge of organic farming, but buys organic because it makes him feel “safer”
- ✓ Wears sunscreen because the “hole in the ozone layer makes it more dangerous to be in the sun”
- ✓ Uses a water filter on the kitchen tap but not in the shower
- ✓ Recycles out of an ambiguous sense of moral duty
- ✓ Ponders the possibility of buying a hybrid vehicle someday
- ✓ Enjoys buying brands that symbolically align with his identity and values



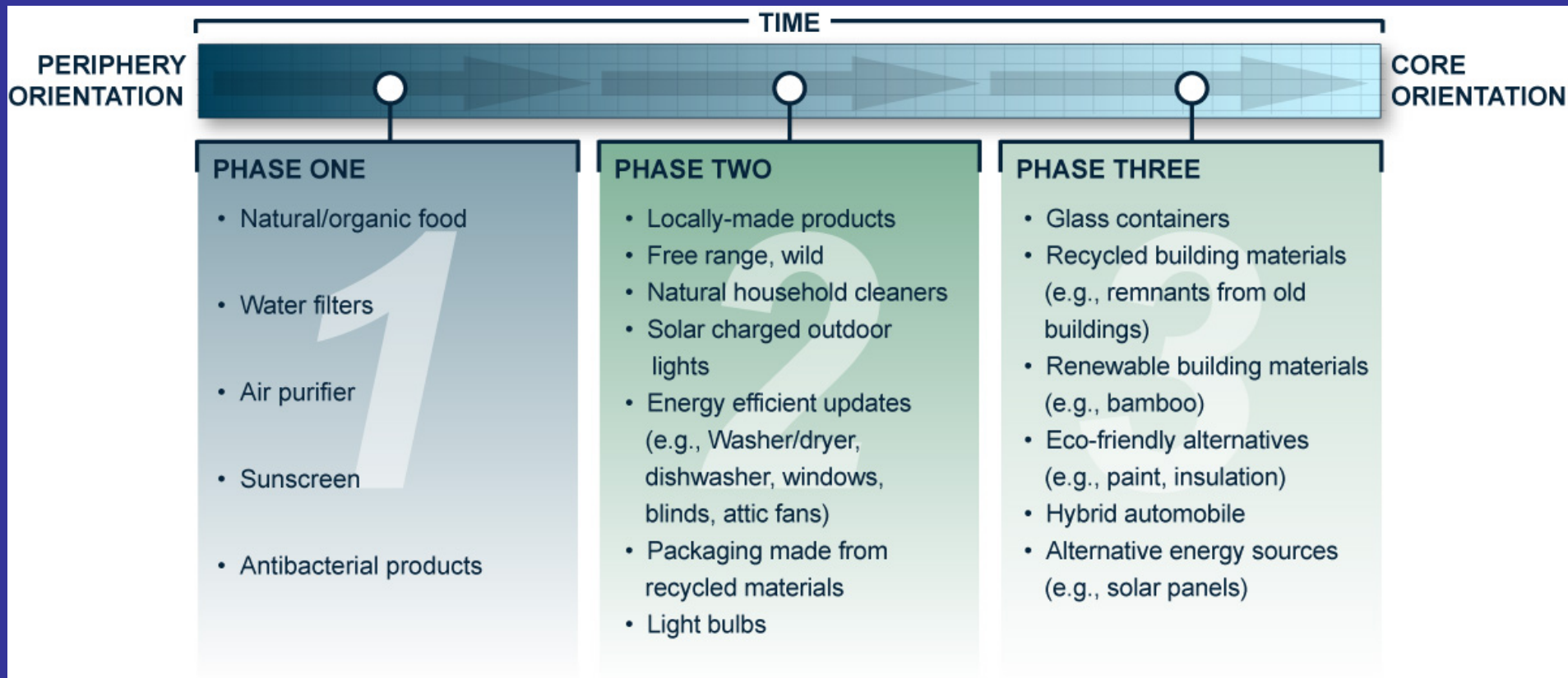
# Meet Sarah: CORE CONSUMER

- ⇒ Pays premium prices for items produced by companies who treat their workers fairly
- ⇒ Avoids plastic packaging and containers due to concerns about “leeching” and landfills
- ⇒ Strategically plans errand trips so that she can minimize her gas consumption
- ⇒ Recently purchased sustainable cotton bed sheets for her home
- ⇒ “Follows” some of the products she buys throughout their lifecycle
- ⇒ Buys only cruelty-free personal care products
- ⇒ Believes her purchase decisions are a form of direct democracy



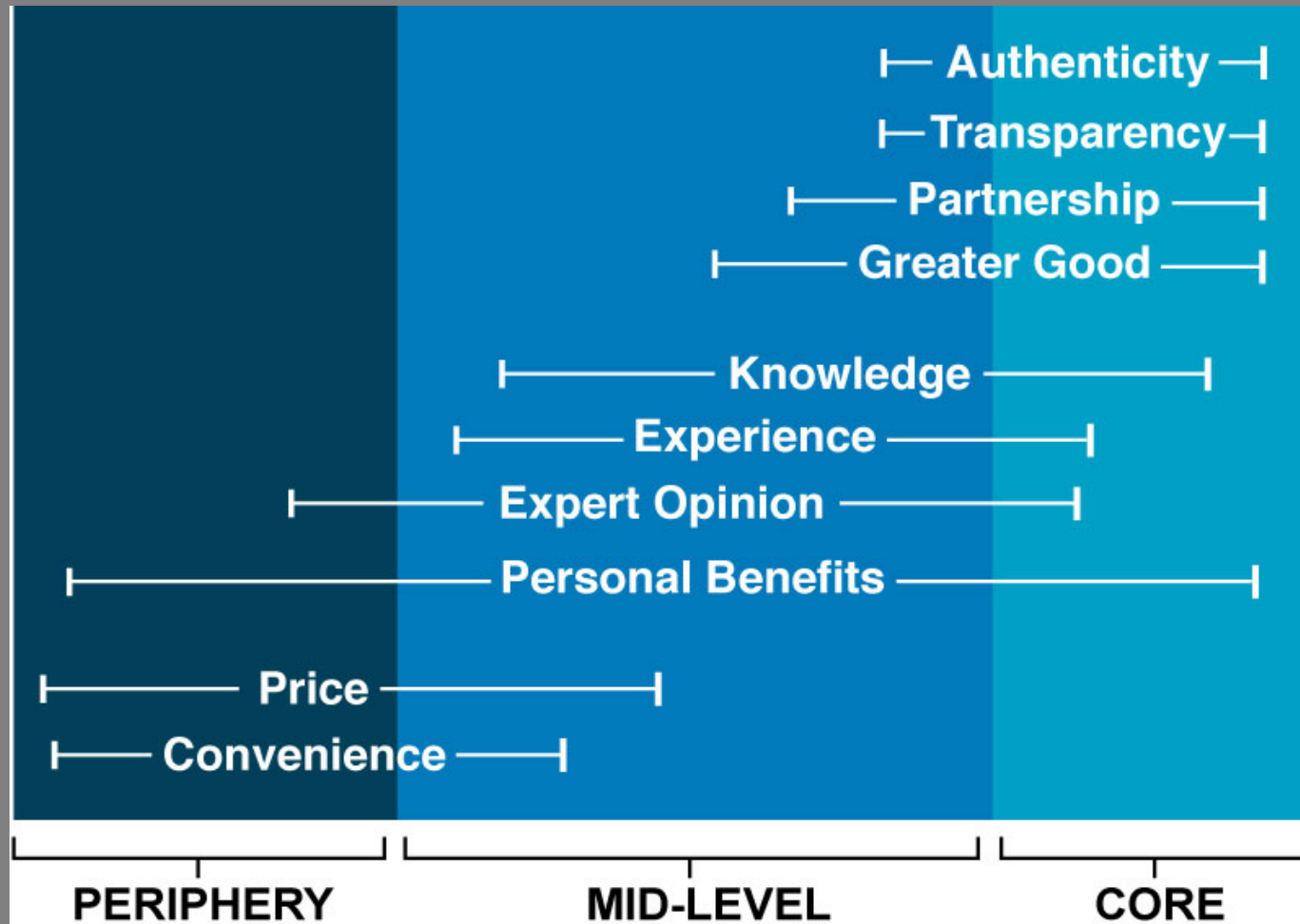
# Category Adoption Pathway for Sustainability

As a consumer's sustainability consciousness evolves towards a Core orientation, s/he tends to travel along an identifiable category adoption pathway



# Dimensions of Sustainable Lifestyles

- Core, Mid-level, and Periphery Sustainability Consumers are drawn to different attributes of products, settings, and services







# Water

- × Irrigated Agriculture has been vital to meeting quickly rising food demand.
- × Irrigation continues to expand but now the pace is slowing.
- × Water availability for irrigation is increasingly constrained.
- × Governments have led the expansion of large scale irrigation but performance has been suboptimal.
- × Water productivity has shot up but there is massive room for improvement.
- × Water resources management is changing, and environmental and social concerns are growing.

The World Bank, Reengaging in Agricultural Water Management.





# Other Activities

- Green Facilities
- Carbon Foot Print
- Food Miles

## Why bother, continued.....

- Improve customer, employee satisfaction
- Cut input, waste disposal costs
- Smarter management improves quality
- Retain, acquire new customers
- Make a real difference!



# Communicate Program

- ➞ Employees
- ➞ Community
- ➞ Customers
- ➞ Regulatory/Federal Agencies

- ➞ Website
- ➞ Point of Sale
- ➞ White Paper
- ➞ Tell Stories
- ➞ Impacts

- ▣ Reduced Pesticide use by 10%
- ▣ Reused 100 million tons of waste



# Conclusion

- Sustainability includes financial, environmental and social factors
- Most consumers do not understand sustainability
- There is no finish line for sustainability
- Pick a few activities that are achievable
- Communicate the program; use stories