

Analyzing Sustainability Approaches:

Economic

Environmental

Social

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Sustainable Commodity Initiative

-- iisd --

- **Committee On Sustainability Assessment (COSA)**

To understand what does and what does not work as well as establish the costs and benefits

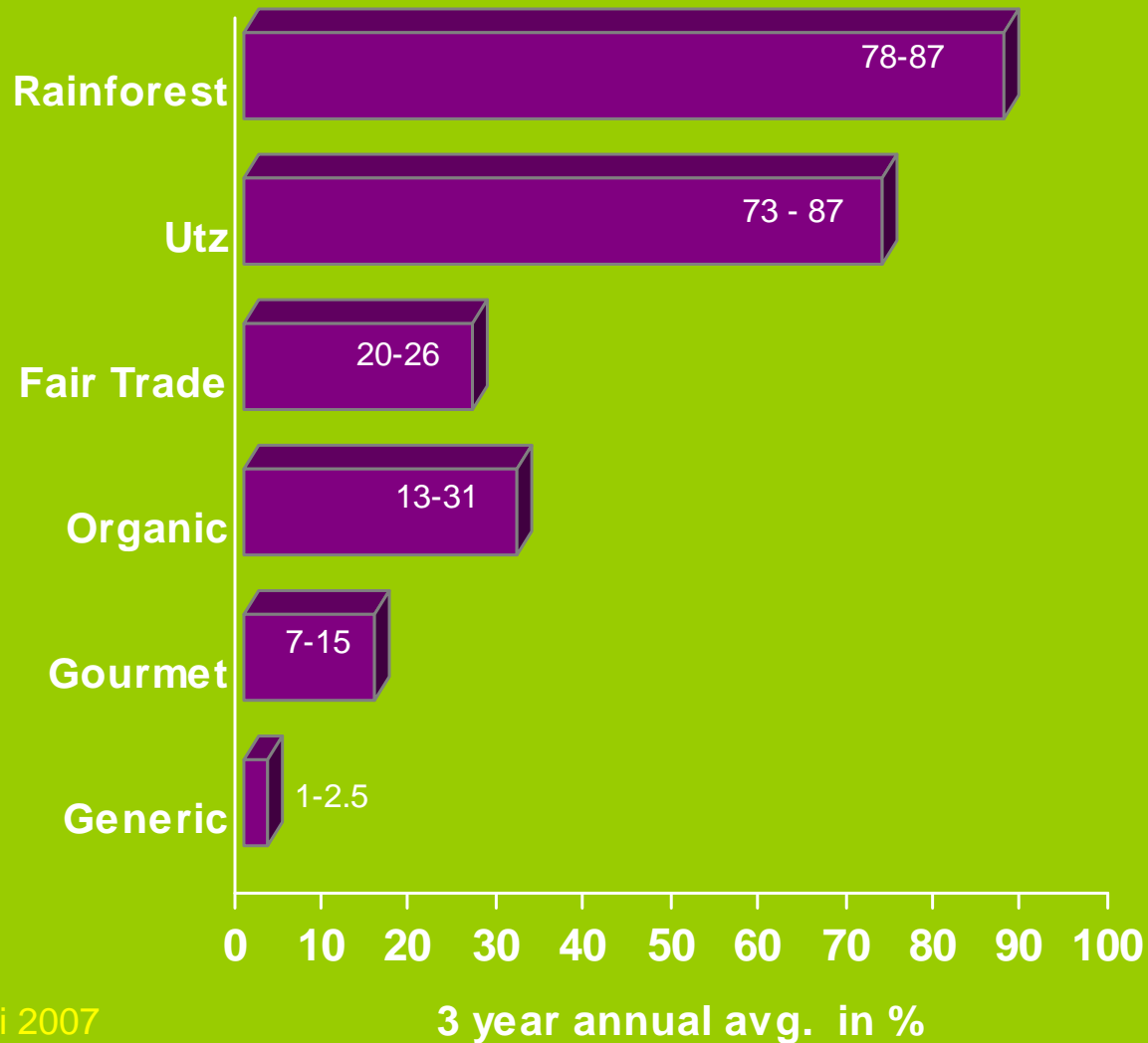
- **Sustainable Commodity Assistance Network (SCAN)**

Supports application of Sustainability initiatives with tech support at ground level globally

- **Financing Alliance For Sustainable Trade (FAST)**

Provides financing for producer groups that pursue Sustainability initiatives

Sustainable Grows (2005-07)



Source: Giovannucci 2007

PROBLEM

- **Claims of sustainability**
 - Legitimacy
 - Distortion of signals to producers, policymakers & consumers
- **Difficulty of evaluating intangibles**
- **Limited M & E**
 - Partisan evaluations

What COSA does

- Assess compliance **costs & benefits**:
 - **direct** (i.e. record-keeping, certification)
 - **indirect** (i.e. the costs of learning).
- Measure both **tangible & “intangible”** values associated with sustainable practices. (i.e. yield changes, co-op development)
- **Capture differences** experienced in distinct eco-systems, regions, production intensity, and plantations/small farmers.

COSA benefits four stakeholders:

- 1. Producers** - relevant info on expected financial and time investments required in order to select and manage any sustainable practices they choose in a cost-effective manner.
- 2. Traders, mfrs. and retailers** have interest in maintaining stability, quality, and good farm management for their supply.
- 3. Policy makers** need clear and objective information on how different sustainable practices impact producers and their communities.
- 4. Standards bodies** need to ensure the ultimate impacts of their systems

What COSA measures

ECONOMIC

CATEGORY	CRITERIA	Key Indicators
1. Farm Income	Productive Efficiency Post-Harvest Quality Price Received	
2. Risk	Volatility Financing Diversification	
3. Market Access	Relationship Transparency	
4. Management	Efficiency Administration	
5. Organizational	Management Services Support Activities	

What COSA measures

SOCIAL

CATEGORY	CRITERIA
1. Health and Safety Conditions	Policy awareness Access to medical services Handling of chemicals Access to portable water Living conditions
2. Working Hours and Wages	Wage rates Equitable treatment
3. Education and Training	Access to education Access to training
4. Basic Rights	Functioning labor contracts Protection from Risky Activities Child Labour Right to Organize
5. Community Relations and Well-being	Resource Management Activities
6. Farmer Perception	Satisfaction

Key Indicators

What COSA measures

ENVIRONMENT

CATEGORY	CRITERIA	Key Indicators					
1. Resource use	Energy Use Water Use Agrochemical Use Land Use		Key Indicators				
2. Pollution	Soil Water			Key Indicators			
3. Soil degradation	Erosion				Key Indicators		
4. Recycling/Reuse	Natural matter Man-made matter					Key Indicators	
5. Biodiversity	Flora Farm Environmental Administration						Key Indicators
6. Carbon sequestration	Storage and production capacity						

CIRCLE

OF

SUSTAINABILITY



Advisory Panel (non-binding)

Producers	Donors	Initiatives	NGOs	Research	Private
East Africa Coffee Assn	European Commiss.	Rainforest Alliance	SNV	Columbia	Nestle
Colombian C. Growers Federation	UNCTAD	Utz Certified	OXFAM	Cornell	Kraft Foods
Peru Junta Nacional		FLO	Solidaridad	CATIE	Starbucks
India Board	ICO	4C	European Coffee Fed.	CIRAD	Sara Lee
Guatemala Anacafe	FAO	IFOAM	SCAA	INCAE	SAI
Mexico Dept. Coffee	USAID	ISEAL		Embrapa	ECOM

COSA: Key features

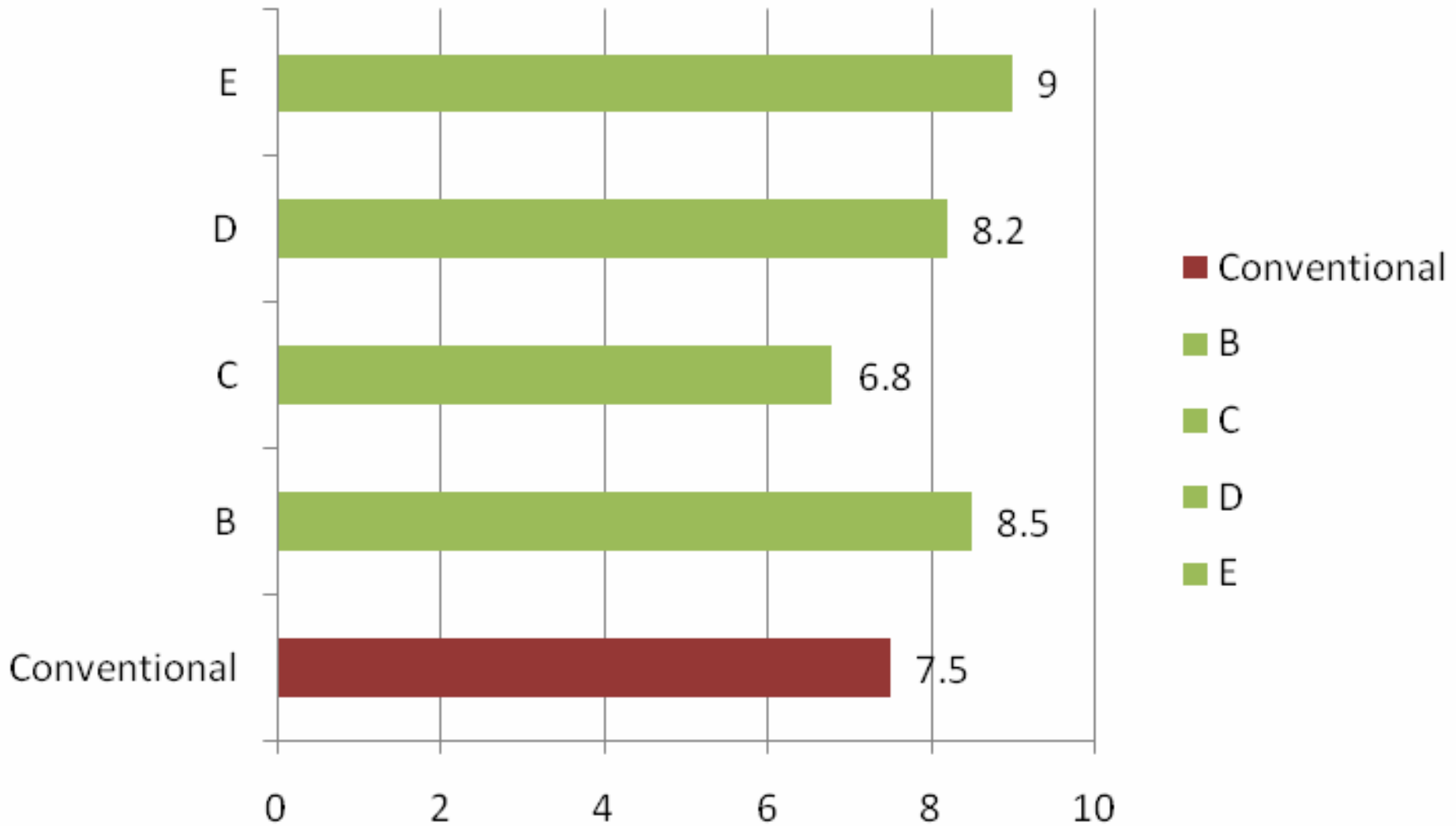
- Multi-criteria
- Independent
- Inclusive
- Web accessible

Recognize Sustainability in Many Forms

- Gourmet or specialty
- Organic
- Fair trade
- Rainforest Alliance
- Utz Certified
- 4Cs
- Nespresso
- SMBC - Bird Friendly, etc.

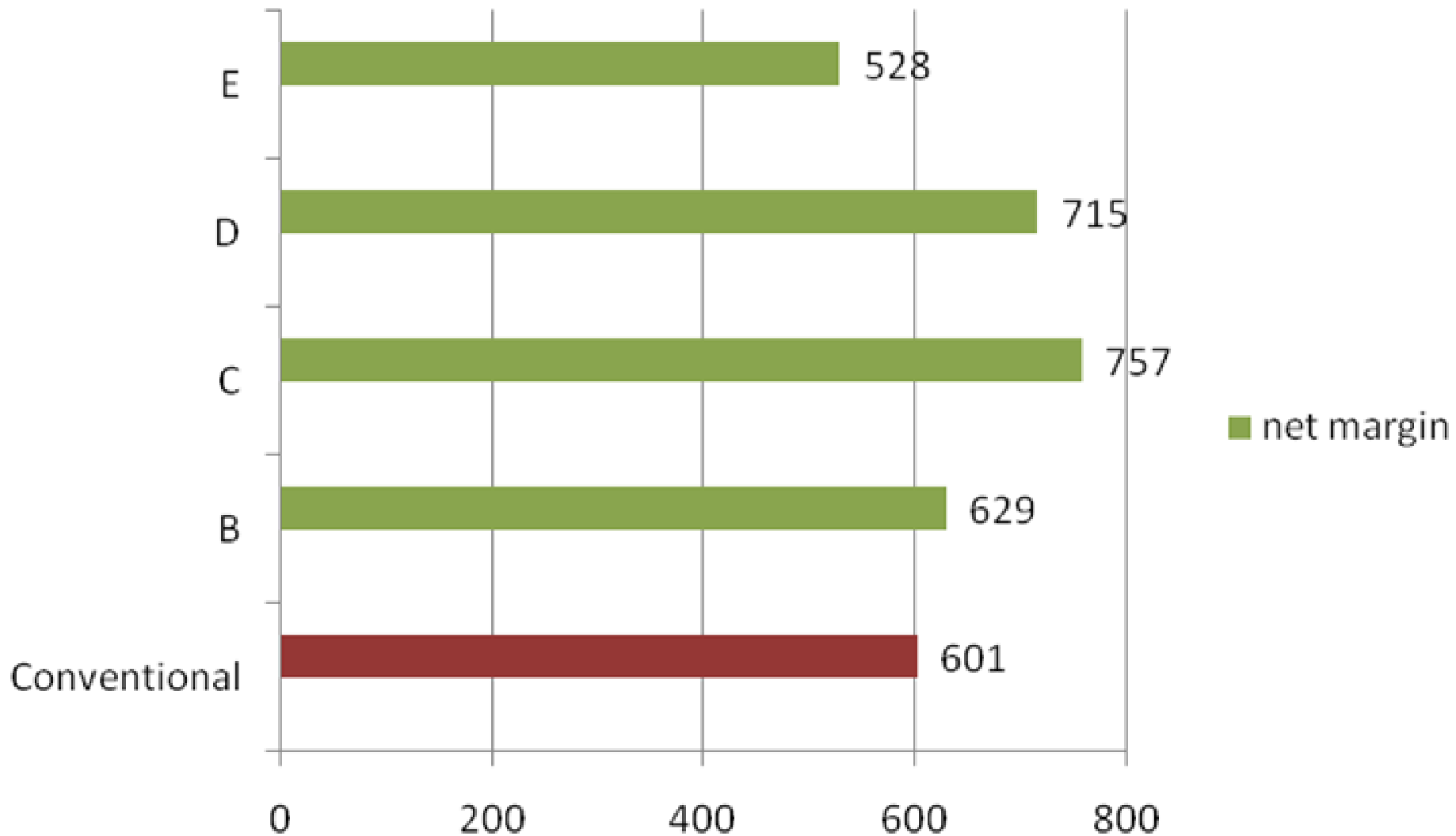
COSA: Soil Erosion

Certified vs. Conventional



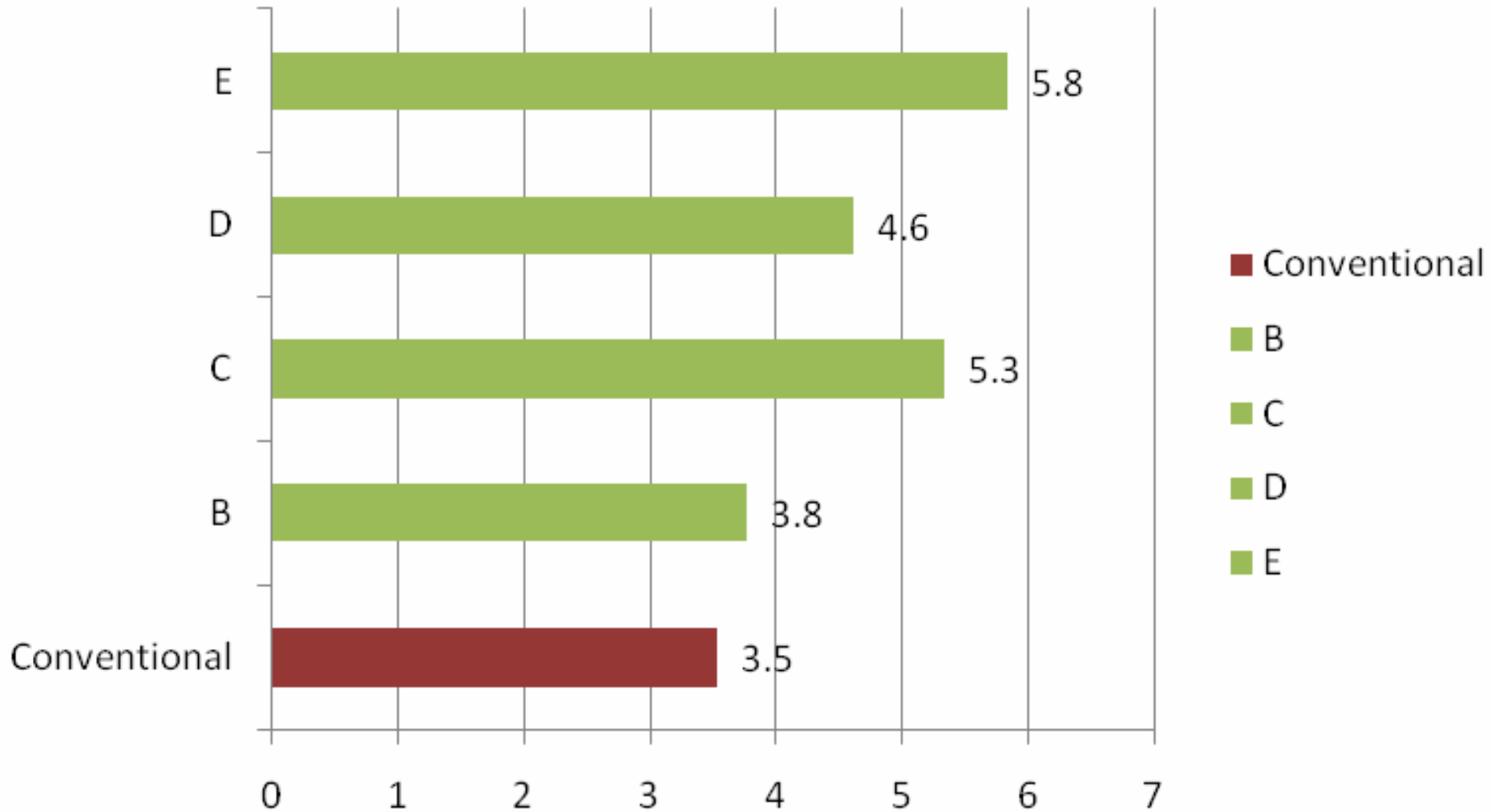
COSA: Economics

Certified vs Conventional



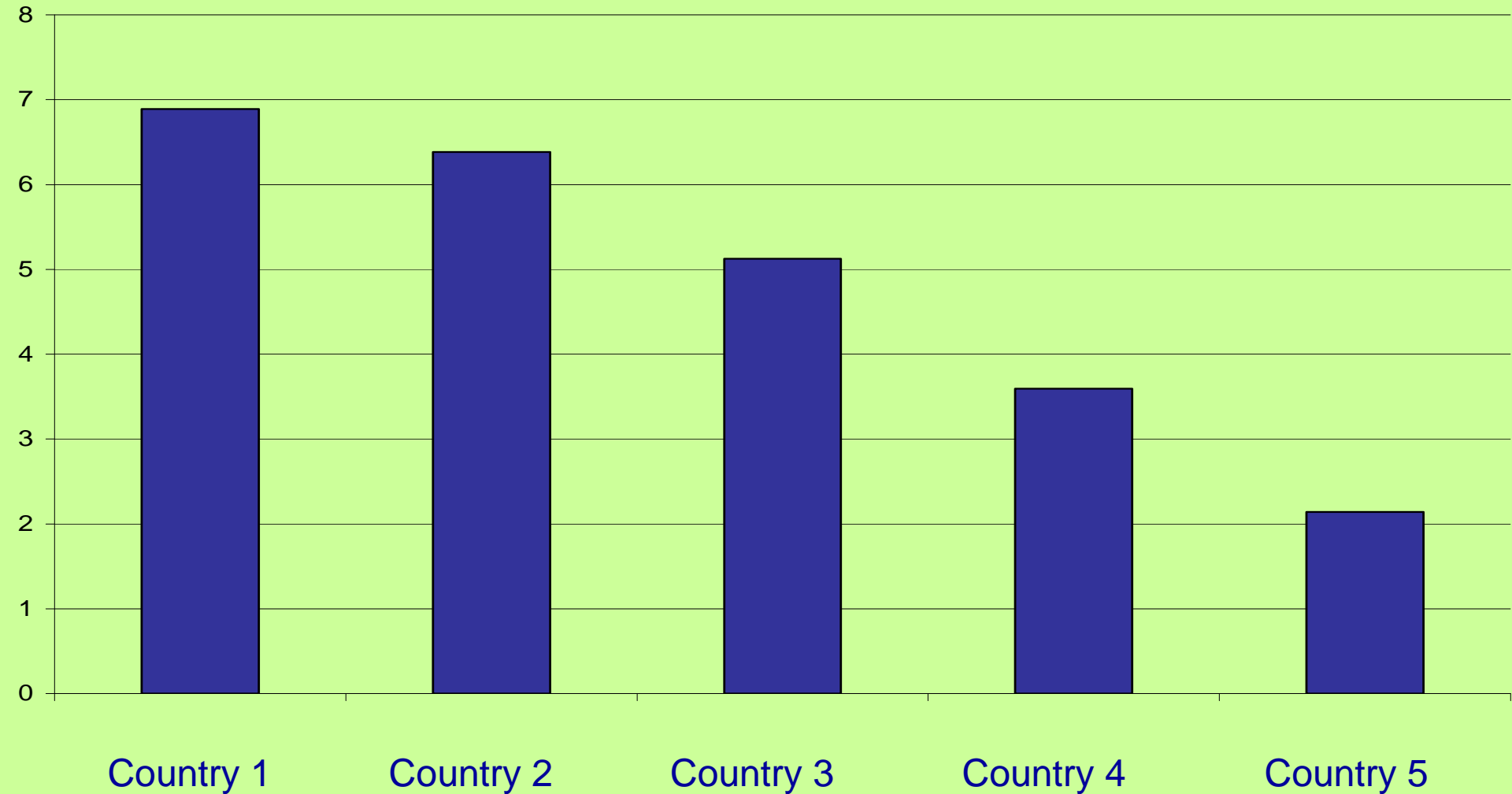
COSA: Occupational Safety #1

Certified vs. Conventional



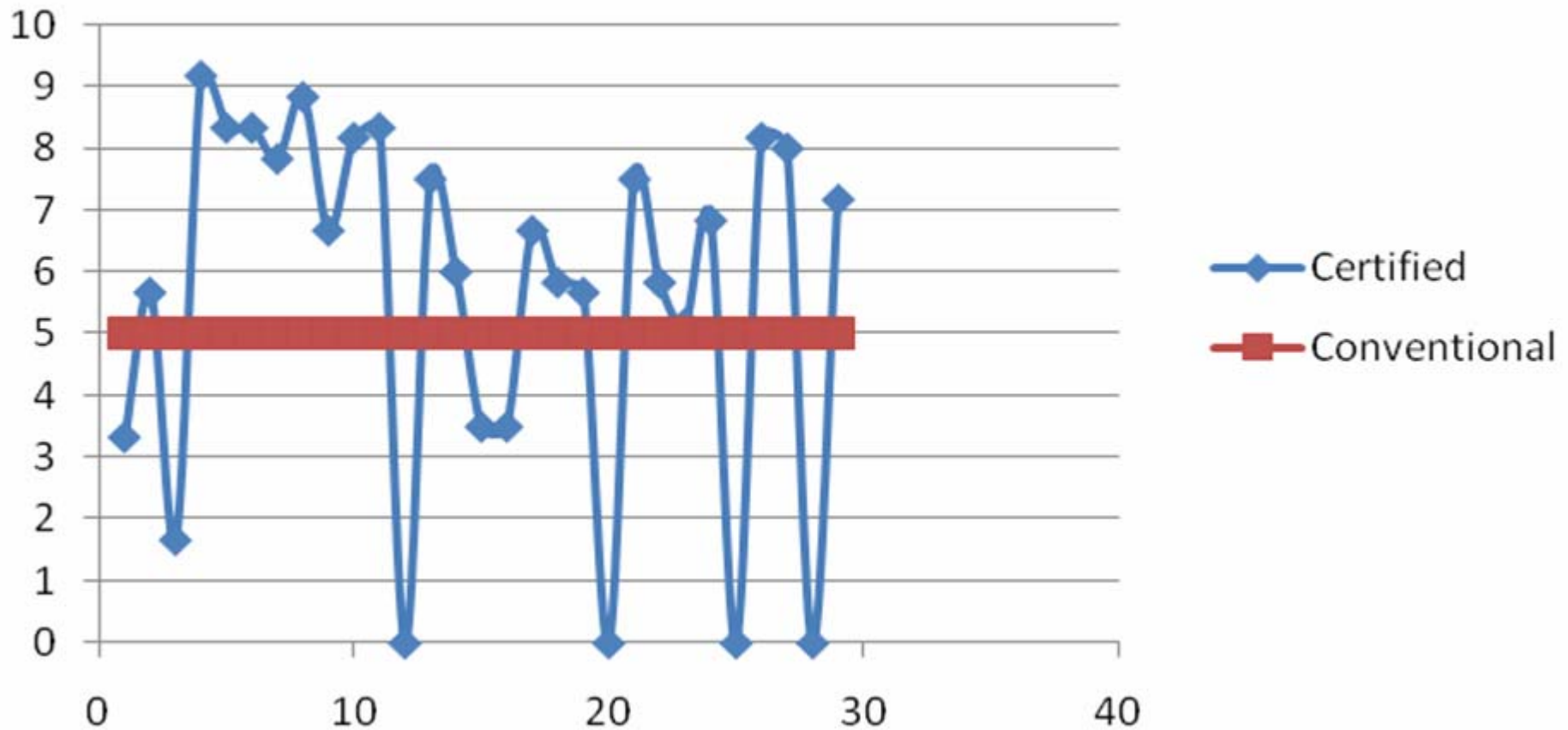
COSA: Occupational safety #2

Country Avg.



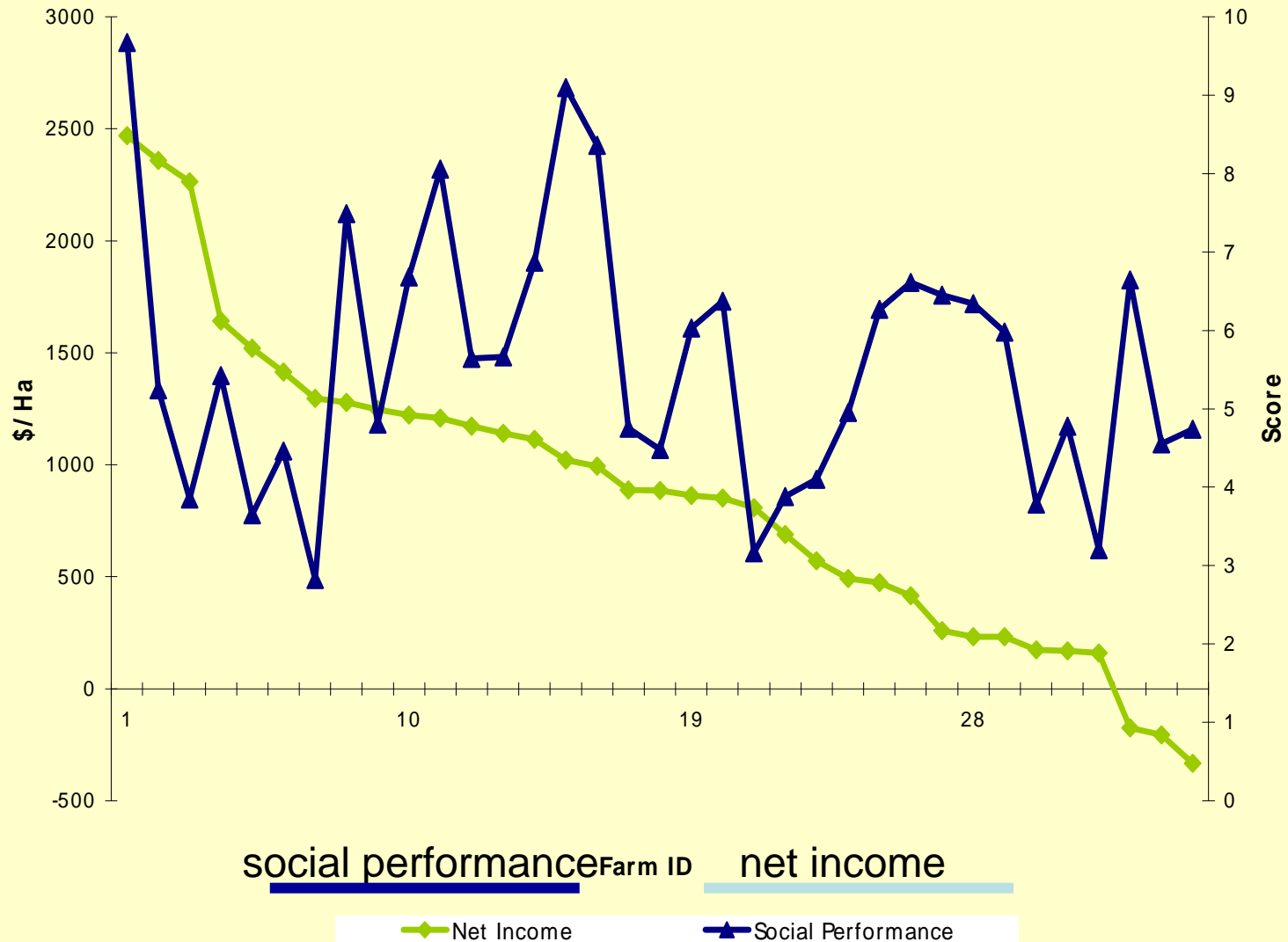
COSA: satisfaction metric

Producer Satisfaction by Farm



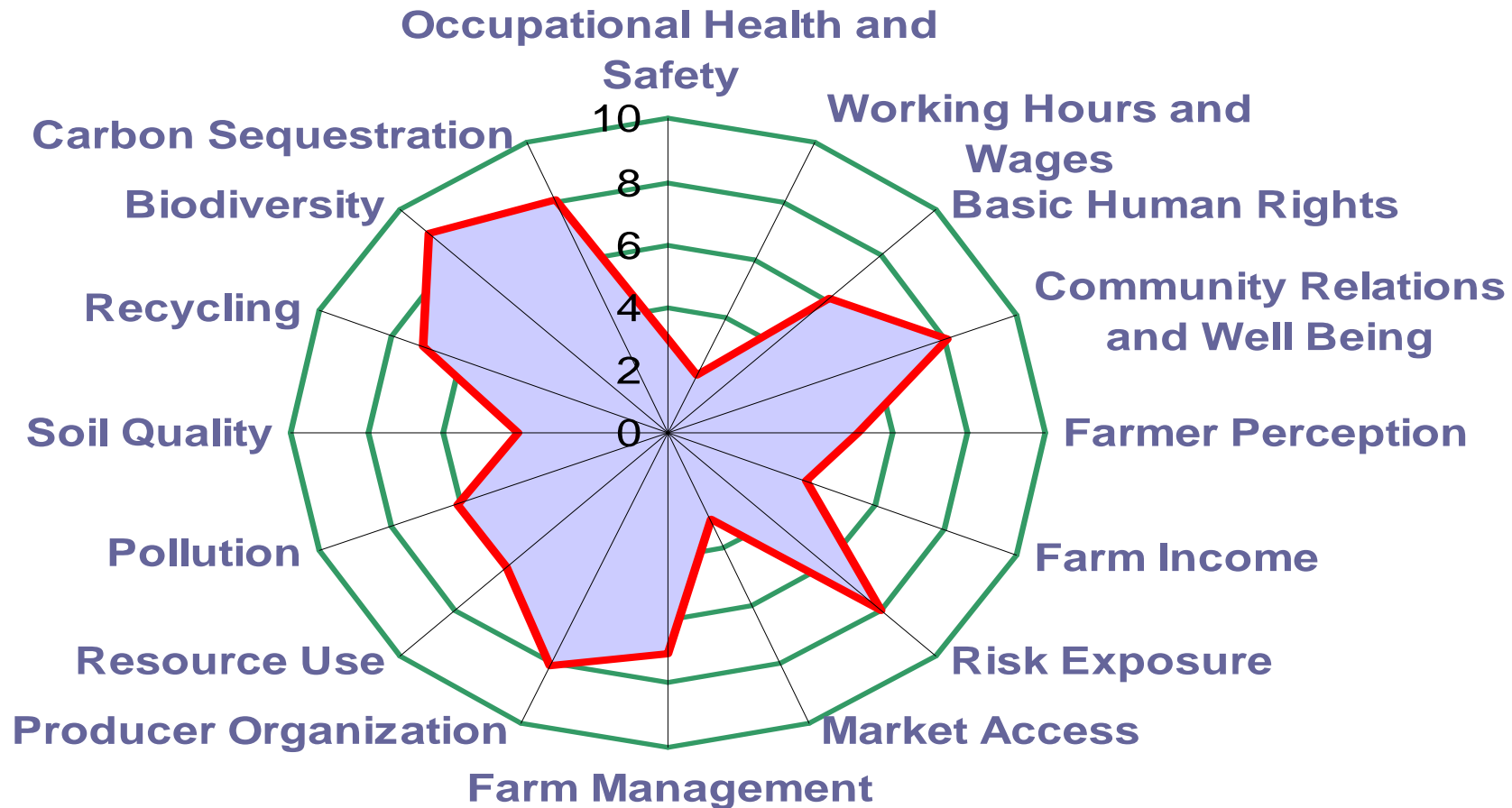
COSA: Multi-Criteria Analysis

Social performance and net income



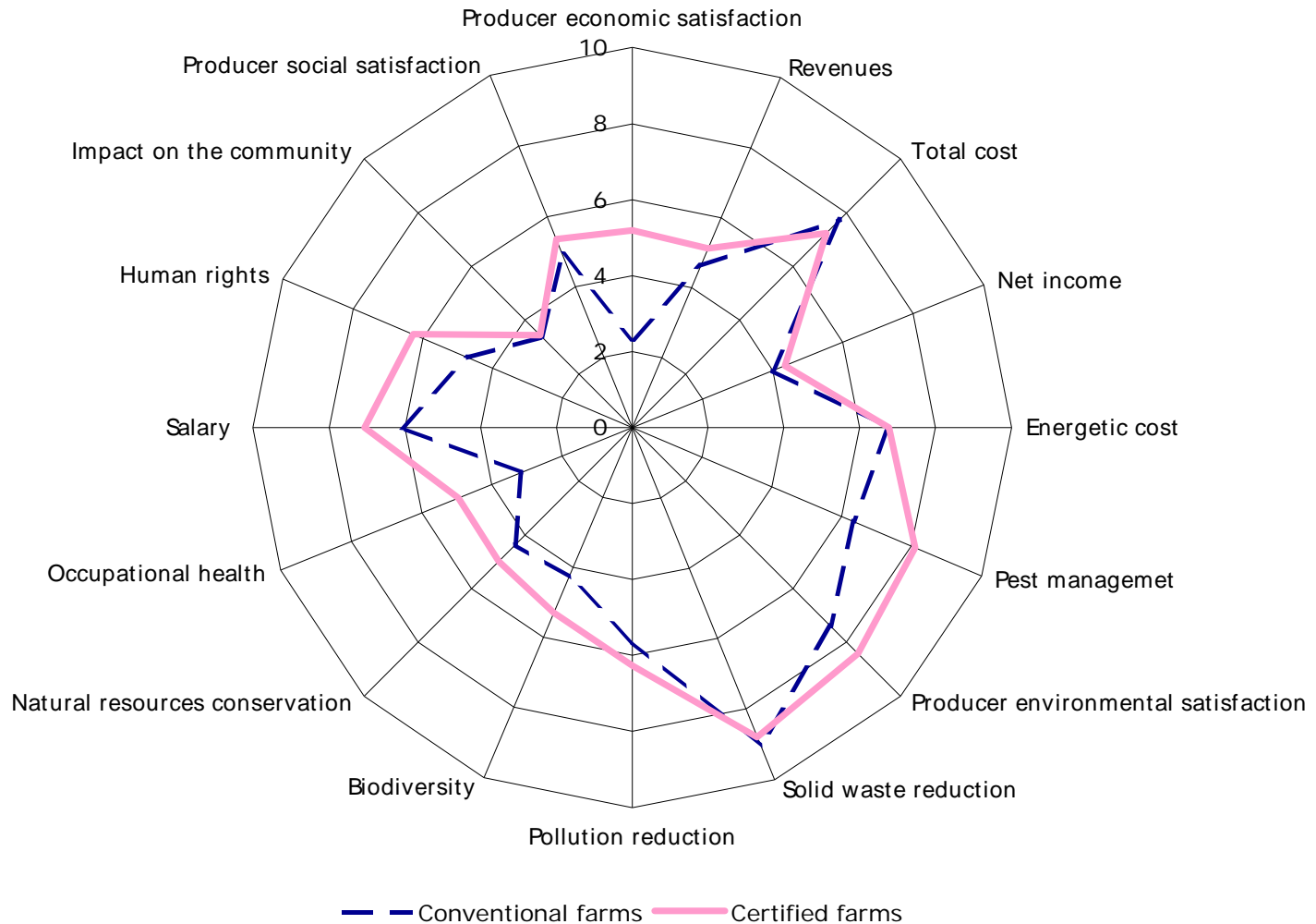
COSA Multi-Criteria Analysis

Farm level performance



COSA Multi-Criteria Analysis

Certified vs Conventional



COSA: Multi-Criteria Analysis

- structured approach to the management and analysis of **distinct variables** without attempting to translate individual variables into a single common unit.
- distinct from analytic tools (such as RISE and Ecological Footprinting) - ensures the integrity of measured variables by avoiding heavily subjective weightings.
- contribute to complex decision making process.

C O S A

Committee On Sustainability Assessment

GOAL: producer friendly

OBJECTIVE: collaborative

TEAM: initiative of interested experts

PERFECT: absolutely not

COSA: Key features

1. COSA years 1-3

- Expert panels
- Theoretical framework
- Pilot & test

Fundraise

- Translate Methodology to Field Surveys
- Select partners

- Develop database design
- Data integrity measures

2. Data Gathering

- Country Coordinators
- Train partners
- Oversee quality control

Country adaptations

3. Back-end processes

- Manage data entry
- quality control

4. Presentation

- Global database
- Data integrity measures

Policy dialogue

Independent publications derived from COSA data

how to use COSA

- **Diagnostic tool:** Evaluate farm practices based on international sustainability standards
- **Didactic tool:** Learn what implementation of sustainable practices would mean at the field level
- **Business decision making tool:** Assess changes necessary to be compliant with a sustainability systems and maximize benefits
- **Monitoring and evaluation tool:** Using the tool over time, sustainability progress can be assessed and returns on investments or cost/benefit ratio evaluated
- **Negotiating tool:** Understanding real costs and benefits of adopting sustainable practices enables producers to negotiate more realistically.

COSA in the field

realities

Lessons: dynamic between IDEAL and reality

- Selection of sample

- represent certified and national profile
- length of time certified
- multiple certifications
- representative size: small & large
- organizational context
- diverse eco-zone
- production system(intense & rustic)
- control groups (modified propensity scoring)

- Data quality

- Profile of local partner requirements
- Training
- Adaptation & Testing
- Independent auditor with local agent (extension or co-op)
- Pre-preparation of basic data by producer – then feed back

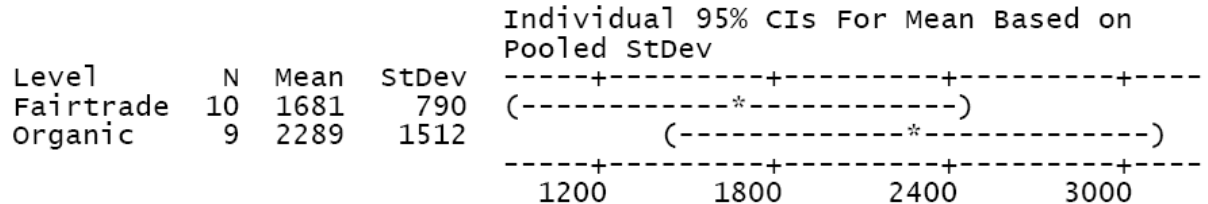
Key Lessons - Analysis of Variance

probability of error high when sample small (10 farms)

One-way ANOVA: Incomes/Ha versus certification

Source	DF	SS	MS	F	P
certification	1	1751672	1751672	1.25	0.280
Error	17	23889197	1405247		
Total	18	25640869			

s = 1185 R-Sq = 6.83% R-Sq(adj) = 1.35%



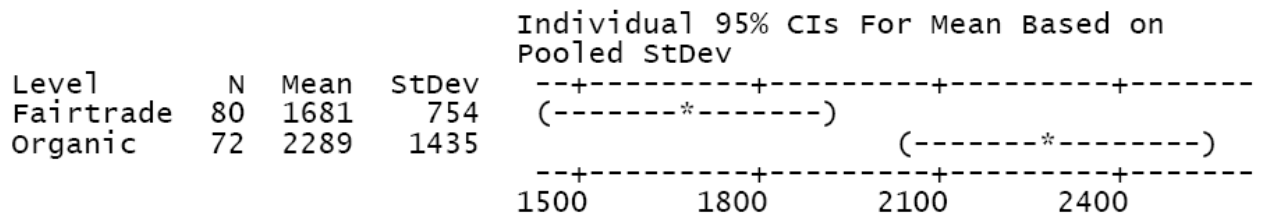
Pooled StDev = 1185

probability of error less than 1% when increasing sample size (75 farms)

One-way ANOVA: Incomes/Ha versus certification

Source	DF	SS	MS	F	P
certification	1	14013374	14013374	11.00	0.001
Error	150	191113575	1274091		
Total	151	205126949			

s = 1129 R-Sq = 6.83% R-Sq(adj) = 6.21%



Pooled StDev = 1129

COSA www.iisd.org/standards/cosa.asp

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