



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Motivational and Design Conflicts in Voluntary Environmental Programs

**Satish Joshi
Steven Miller
Abdul Abdulkadri
Sandra Batie**

**Department of Agricultural, Food and Resource Economics,
Michigan State University
East Lansing, MI 48824**

Contact:satish@msu.edu

*Poster prepared for presentation at the Agricultural & Applied Economics
Association's 2012 AAEA Annual Meeting, Seattle, Washington, August 12-14, 2012
Copyright 2012 by S. Joshi, S. Miller, A. Abdulkardri and S.Batie. All rights reserved.
Readers may make verbatim copies of this document for non-commercial purposes by any
means, provided that this copyright notice appears on all such copies.*

Motivational and Design Conflicts in Voluntary Environmental Programs:

Case Study of Michigan Agriculture Environmental Assurance Program (MAEAP)

Satish V. Joshi*, Steven R. Miller*, Abdullahi O. Abdulkadri**, Sandra S. Batie*

* Michigan State University **The University of the West Indies

Motivations for VEPs

Economic theory identifies two major motivations for firms' participation in voluntary environmental programs(VEP): 'regulatory preemption' and 'signaling for differentiation.'

Regulatory Preemption

- Under a 'regulatory preemption' scenario, firms engage in voluntary pollution reduction through VEPs when faced with potentially stringent future regulations.
- Environmental improvements from VEP are aimed to reduce political pressures on regulatory agencies and legislators, thereby preempting future regulation.
- Environmental performance standards under regulatory preemptive VEPs are designed to meet the minimum level that is adequate to pre-empt more stringent future regulations
- Firms which are most likely to be affected by anticipated future stringent regulations will participate in VEPs
- Participants are likely to be high polluters
- Participants are likely large, visible firms
- Correspondingly regulators perceive VEP participants as high polluters with high probability of potential violations
- Participation by these firms is likely to decline when regulatory threat weakens
- Participation will decline if regulatory threats are realized

Signaling for Differentiation

- Under a differentiation scenario, firms which are already proactively engaged in environmentally responsible activities would like to send a signal (in the form of VEP participation) about their environmental responsibility to regulators and/or environmentally conscious consumers.
- The goal is to differentiate themselves and to capture additional returns—either in the form of higher prices from consumers or in reduced regulatory costs.
- In a properly designed signaling VEP, there will be a separating equilibrium, where in firms that are environmentally responsible participate in the VEP, and less responsible firms do not participate.
- The performance standards under such a VEP will be relatively high and costly enough to provide a 'credible signal'.
- Correspondingly, the consumers and regulators believe the participating firms are environmentally more responsible.
- Participation is more likely for smaller firms looking to differentiate.

History of Michigan Agriculture Environmental Assurance Program (MAEAP) for the livestock industry

1997

- Pollution Prevention strategy for MI agriculture launched
- Voluntary approach
- Focus on education, GAAMPs
- Multi-stakeholder consortium to develop processes & practices

2000

- ECOS agreement signed with USEPA
- Allowed CAFOs to get MAEAP certification in lieu of NPDES permits
- Many environmental stakeholders left consortium

2007

- ECOS agreement concluded
- Large CAFOs required to have NPDES permits
- Loss of regulatory preemption motivation

2012

- MAEAP became a program under MI Dept. of Agriculture
- Focus toward labeling

DEQ, Env Groups with Regulatory Preemption lens

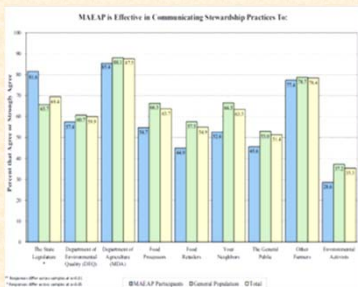


MAEAP



MI. Dept of Ag., and Farm Bureau with Differentiation lens

Results from Livestock Producer Surveys



MAEAP effectiveness: Producer perceptions	MAEAP effectiveness: Cost of implementation			Row Total
	MAEAP is more costly than the DEQ permit	MAEAP costs the same as the DEQ permit	MAEAP is less costly than the DEQ permit	
	Percent of Total	Percent of Total	Percent of Total	
MAEAP is less effective than the DEQ permit	3.2%	4.2%	14.7%	22%
MAEAP is the same as the DEQ permit	3.2%	9.9%	20.0%	33%
MAEAP is more effective than the DEQ permit	8.4%	7.4%	29.5%	45%
Column Total	15%	21%	64%	100%

Statement	Percent of Respondents				Mean (SD)
	Strongly Disagree	Disagree	Agree	Strongly Agree	
DEQ is less likely to audit operations that are MAEAP-certified than non-participating operations.	3.8	23.3	37.7	36.5	4.7 (3.4)
DEQ is less likely to enforce regulations on MAEAP-certified operations than on non-participating operations.	2.0	6.0	31.7	48.6	11.6 (3.6)
Participating in MAEAP will help me reduce my environmental liability.	2.5	10.2	27.5	43.9	16.0 (3.6)
Participating in MAEAP will help me reduce my environmental liability.	1.8	9.6	33.9	42.8	12.8 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	2.8	6.2	23.8	58.5	16.7 (3.5)
I am not concerned that MAEAP certification will draw attention to my operation.	4.1	16.7	34.1	36.3	6.7 (3.2)
Participating in MAEAP will help me reduce my environmental liability.	4.4	24.7	48.2	21.8	4.9 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	2.6	20.7	48.6	28.3	3.6 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	1.5	7.0	28.6	59.8	9.9 (3.7)
Participating in MAEAP will help me reduce my environmental liability.	2.0	7.3	34.7	48.6	9.6 (3.6)
Participating in MAEAP will help me reduce my environmental liability.	3.0	16.8	48.6	28.3	2.8 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	4.3	16.4	21.9	48.7	13.7 (3.4)
Participating in MAEAP will help me reduce my environmental liability.	1.5	6.3	36.2	48.7	18.6 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	6.0	29.4	26.5	21.0	2.4 (2.8)
Participating in MAEAP will help me reduce my environmental liability.	2.3	16.4	25.6	48.6	9.2 (3.4)
Participating in MAEAP will help me reduce my environmental liability.	5.7	29.1	30.8	21.4	3.1 (3.0)
Participating in MAEAP will help me reduce my environmental liability.	2.8	15.6	25.0	48.5	4.0 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	1.8	7.3	24.9	53.6	19.2 (3.7)
Participating in MAEAP will help me reduce my environmental liability.	4.1	16.6	32.5	44.3	6.5 (3.4)
Participating in MAEAP will help me reduce my environmental liability.	3.6	24.7	42.8	21.4	4.3 (3.8)
Participating in MAEAP will help me reduce my environmental liability.	3.0	15.2	36.4	32.9	3.9 (3.3)
Participating in MAEAP will help me reduce my environmental liability.	3.1	15.6	28.8	31.8	3.4 (3.4)

Conclusions and Recommendations

- History Matters!** VEPs can be viewed using different lenses by different stakeholders, depending on historical evolution
- Inconsistency in perceived motive across stakeholders can lead to design and implementation difficulties because of contradictions among requirements and beliefs.
- Changing primary motivations later can be problematic because changing established beliefs is challenging.
- Active involvement of broad set of stakeholders(regulators and environmental groups) to make VEP participation a credible signal of higher environmental stewardship.
- The potential of Agricultural VEPs such as MAEAP is high if aimed at small and medium sized farms.