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Motivational and Design Conflicts in Voluntary Environmental Programs

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Motivational and Design Conflicts in Voluntary Environmental Programs:

Case Study of Michigan Agriculture Environmental Assurance Program (MAEAP)

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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

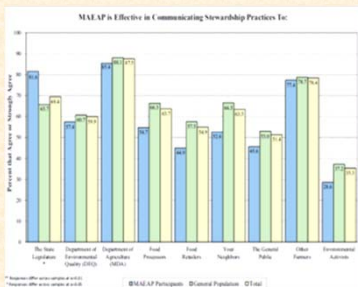


MAEAP



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-participants to MAEAP. I can better manage my farm for environmental and regulatory agency audits.	3.8	23.3	37.7	36.5	4.7 (3.4)
The environmental and regulatory agencies are more likely to audit operations that are MAEAP-certified than non-participants to MAEAP. I can better manage my farm for environmental and regulatory agency audits.	2.0	6.0	31.7	48.6	3.6 (3.6)
Participating in MAEAP will reduce the cost of environmental and regulatory agency audits.	2.5	10.2	27.5	43.9	3.6 (3.6)
Participating in MAEAP will reduce the cost of environmental and regulatory agency audits.	1.8	9.6	33.9	42.8	3.2 (3.6)
Participating in MAEAP will reduce the cost of environmental and regulatory agency audits.	2.8	6.2	23.0	58.5	3.5 (3.5)
I am not concerned that MAEAP certification will draw attention to my farm's operations.	4.1	16.7	34.1	36.3	4.7 (3.2)
Participating in MAEAP will draw attention to my farm's operations.	4.4	24.7	48.2	21.8	4.9 (3.8)
MAEAP participation will draw attention to my farm's operations.	2.6	20.7	49.6	26.3	3.6 (3.6)
MAEAP participation will draw attention to my farm's operations.	1.5	7.0	28.6	59.6	3.9 (3.7)
MAEAP participation will draw attention to my farm's operations.	2.0	7.3	34.7	48.6	3.6 (3.6)
MAEAP participation will draw attention to my farm's operations.	3.0	16.8	48.6	28.1	3.8 (3.8)
MAEAP participation will draw attention to my farm's operations.	4.3	16.4	21.9	48.7	3.7 (3.4)
Participating in MAEAP will add benefits to my farm's operations.	1.5	6.3	36.2	48.7	3.6 (3.6)
Participating in MAEAP will add benefits to my farm's operations.	0.9	29.4	38.5	21.0	2.4 (2.4)
Participating in MAEAP will add benefits to my farm's operations.	2.3	16.4	25.6	48.6	3.2 (3.4)
Participating in MAEAP will add benefits to my farm's operations.	1.7	20.1	30.8	27.4	3.1 (3.1)
Participating in MAEAP will add benefits to my farm's operations.	2.8	15.6	25.0	48.5	3.0 (3.0)
Participating in MAEAP will add benefits to my farm's operations.	1.8	7.8	24.9	53.6	3.2 (3.2)
Participating in MAEAP will add benefits to my farm's operations.	4.1	10.6	32.5	44.3	4.5 (3.4)
Participating in MAEAP will add benefits to my farm's operations.	3.6	24.7	42.0	23.4	4.3 (3.8)
Participating in MAEAP will add benefits to my farm's operations.	3.0	13.2	36.4	33.9	3.9 (3.3)
Participating in MAEAP will add benefits to my farm's operations.	3.1	13.6	28.8	33.8	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.