

## Framing a Public Issue for Extension: Challenges in Oil and Gas Activity

### Abstract

Extension professionals may be pointed towards controversial and contentious public issues. Oil and gas issues, such as hydraulic fracturing, are a challenge for Extension in many states. Public policy education is a tested method that helps Extension professionals maintain credibility and relevance. The professional can help assist communities that are divided and unable to find common ground. This article applies public policy education to oil and gas activity, including hydraulic fracturing.

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Cooperative Extension is well equipped to assist communities dealing with difficult issues. Often called "change agents," Extension educators have long distinguished themselves with expertise in both content and process, thus extending sound scientific research. Many difficult topics may be considered public issues. A public issue is one in a state of controversy, typically not resolved privately or between parties in legal channels, or has impacts beyond the decision maker.

Extension professionals may use public policy education to steer through challenges associated with public issues. Public policy education, sometimes referred to as "public issue education," meets the demand for objective information on public issues and illuminates options and consequences for policy makers' decisions (Barrows, 1983; Flinchbaugh, 1972). Thus, the purpose of public policy education is to foster knowledge and informed public policy decisions.

The public policy education model is an experience-tested approach. A 1949 Farm Foundation initiative created the model to coordinate university Extension, teaching, and research activities. The goal was "stimulating and leading consideration of all sides and angles of any given policy or hypothesis"

(Ernstes, Hildreth, & Knutson, 2007). The public policy education methodology became "the problem definition, policy options, and consequences methodology," which was closely identified with Bottum and Kolmeyer (Ernstes et al., 2007, pp. 108-110).

## Why Do We Care?

Oil and gas activity, including hydraulic fracturing, is a controversial public issue that may impact or provide opportunity for Extension programming. As noted by Patton and Blaine (2001), public issues can be contentious and clouded by perception. These factors may cause Extension to be wary of involvement. Yet Extension is uniquely positioned to engage in this type of programming because of our reputation for and experience in providing science-based information through inclusive and accessible channels of communication.

## Public Issue: Oil and Gas Activity

U.S. oil and gas activity was on the decline 10 years ago. With the applications of "hydraulic fracturing" and horizontal drilling, hydrocarbon production increased greatly in the United States. The process of hydraulic fracturing is also known as "hydraulic fracking," "hydrofracking," "fracking," or "fracing." The term "fracking" is historically traced back to those in opposition to the process. In general, the media uses the term to indicate all aspects of the process, from exploration, to drilling and production. In the hydrocarbon industry, it refers to the process of fracturing a formation at depth and does not include all of the associated activities. A thoughtful summary of hydraulic fracturing is available from the Geological Society of America (n.d.), available via <http://www.geosociety.org/criticalissues/hydraulicFracturing/index.asp>.

## Public Policy Education: The Opportunity for Extension

The boom and potential bust cycles associated with natural resources extraction are not new. As stated over 100 years ago by Guinn (1898), "mining rushes are eccentric, erratic and epidemic. They break out in unlikely places when least expected, become contagious, then disappear as suddenly as they came." Despite knowledge of boom and bust cycles, communities may be ill equipped to cope with the costs and benefits of oil and gas activity. Framing oil and gas activity as a public issue may assist Extension professionals and their constituents, helping the conversation to become constructive as opposed to contentious and combative.

## Public Policy Education Key Principles

Extension professionals can become familiar with the cornerstones of public policy education (Sanders & Williams, 2007). Public policy education is based on key principles, including: objectivity, science, framing, timing, and sensitivity.

### Objectivity

First, rather than advocate for a particular side, solution, or policy, Extension strives to be unbiased in both content and presentation. Extension professionals represent the taxpayers of the state. Others, such as industry, coalitions, and consumers, may serve as advocates or opponents of a particular

issue. The credibility of the Extension professional is based on understanding potential costs and benefits, and maintaining a neutral position. While Extension professionals strive to refrain from bias, this can be difficult; professionals, at a minimum, should recognize and acknowledge values they bring into the conversation (Blaine & Patton, 2000). Maintaining strict objectivity can be difficult, if not impossible. See Blaine and Patton (2000), the companion commentary to the Patton and Blaine (2001) piece cited above.

## Science

Second, Extension bases content and conclusions on the scientific method and research, as opposed to ad hoc "fact finding." The scientific method identifies problems, develops hypotheses, collects data, tests hypotheses, draws conclusions, and commits the process to peer-review. Researchers periodically review new data and methods, revealing new insights. Oil and gas activity remains contested and under-researched. Therefore, there is an inclination to rely on anecdotes, which are important and not to be dismissed. However, anecdotes are not science.

## Framing

Third, Extension can frame the issue(s) to be an inclusive, public process that provides relevant parties respectful interaction. Framing may require a neutral facilitator. The risk of serving special interests, such as one side or the other or those in a position of power, is reduced.

Public policy education uses the terms "options" and "consequences" when framing issues, instead of the advantages/disadvantages (pros/cons) approach, which may draw on myths and opinions, as opposed to fact (Sanders & Williams, 2007). What is a positive to one participant might very well be perceived as a negative to another. When experts and participants discuss options and consequences, the conversation is more likely to be cohesive and constructive.

## Timing

Fourth, Extension professionals continuously seek teachable moments, that is, the timeliest opportunity to initiate educational programming. As noted by Flinchbaugh (1972), timing is everything. Consider having policy education materials in place in advance.

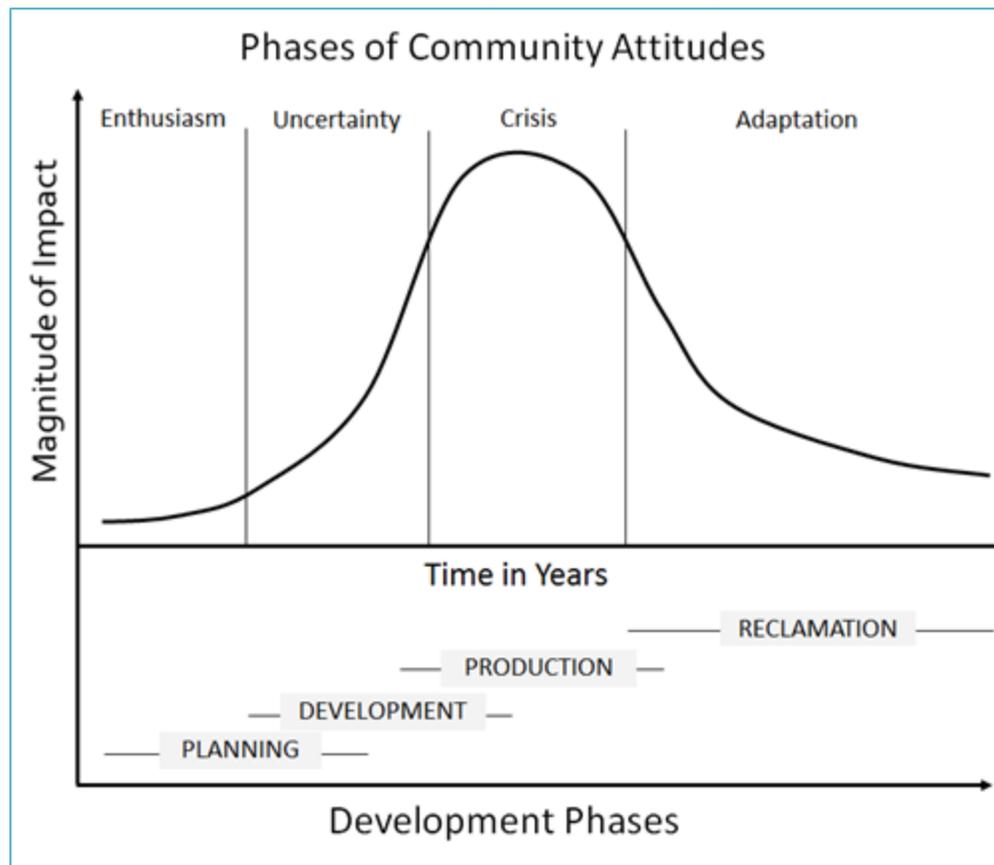
Extension educators may consider the following context. Typically, oil and gas development occurs in four phases: exploration (planning), development, production, and reclamation. During each of these stages, the community impacts vary, though they tend to escalate as activity moves from planning to development (the most labor-intensive phase), and then rapidly decline once production is established and wells are maintained and/or capped (i.e., the reclamation phase).

Unprepared communities typically do not respond to development impacts until the production phase, when impacts peak. As a result, these communities often act in a reactionary and crisis management mode, which can lead to hasty and shortsighted decision-making. Macke and Gardner (2012) illustrate the correspondence between community attitudes (indicative of actions) and the phases of oil and gas development in Figure 1 (Macke & Gardner, 2012). Extension engagement is appropriate at any time,

with roles changing along the continuum.

**Figure 1.**

Oil and Gas Development Phased Impacts



## Sensitivity

Fifth, Extension professionals may be sensitive to the lens through which the public views oil and gas activity. Public policy education does not simply provide research-based information. Public decisions are made when the issue is filtered through a combination of facts, myths, and values. Facts (something known through science or logic) are "true pieces of information." Myths (conceptions of what people think of as fact, but are a blend of sense and nonsense or are widely shared stories of what people think about how society ought to be organized) are "ideas or stories believed by many people but that are not true." Values (concepts of what individuals and groups think "should" be, typically considered as moral/ethical guidelines for the way people live) are "something (as a principle or quality) intrinsically valuable or desirable" (Merriam Webster, 2014). Extension professionals recognize larger myths and acknowledge competing values (Sanders & Williams, 2007).

## Steps to Structuring Oil and Gas Activity as a Public Issue

The primary function of Extension educators is to extend scientific research. Policy creation and promotion are the roles of other actors in the democratic process. Key steps in applying the method to a problem include the following.

### Step 1: Identify and Define the Issue

Oil and gas activity has long been an issue of controversy in many of the traditional oil and gas states, as well as in the more general discussion of environmental issues. However, regions that have benefitted economically from such activity have generally made their peace with the industry. More recently, renewed activity that results from hydraulic fracturing has created a new set of issues, including environmental (e.g., water, waste) and social (e.g. infrastructure, housing demand). These topics are of general concern and debate, and therefore are public issues. While the public policy education framework is useful in many different applications, knowing which applications warrant the time and effort to implement it can be difficult.

One way to determine whether an issue warrants public policy education is to gauge interest in the topic. For example, regarding hydraulic fracturing in Oklahoma, this assessment involved the identification of locally organized groups that were conducting public meetings and writing editorials in which inaccurate information was being shared. Another indicator involved the volume of questions being received by county Extension staff and partner organizations relating to oil and gas development. A third criteria was the recognition that campus faculty across different departments were engaged in oil and gas activity research. Based upon these indicators, public policy education was deemed necessary. The issue was defined around the expertise of the campus faculty as well as the questions Extension educators were receiving about oil and gas development.

## **Step 2: Separate Facts from Fiction (a.k.a. Develop Relevant Facts and Policy Options)**

Extension education is distinguished from general discourse, which may or may not refer to factual information, by its reliance on science. An anecdote may be a factual accounting of an event, such as, "See the water coming out of the tap; see a lighter ignite the gas coming out of the tap with the water." The conclusions may not be based on verifiable, replicable scientific research, so that conclusions drawn from such an anecdote are not useful in seeking solutions through public policy.

It is critical for the Extension educator to know the source of information they distribute and know that the source is using scientific methods to generate the information. It is important to note that even scientifically developed information can be value-laden, so the Extension educator might consider becoming familiar enough with the subject matter to discern biases in the information and attempt to neutralize it (e.g., balance with alternative viewpoints) prior to distribution.

One way to separate facts from fiction is to use a neutral expert. Experts can be a helpful way to address the facts versus fiction issue. Ideally, scientists from public universities and government agencies are more neutral than employees of oil and gas companies. Sometimes, the strategy may be to counterbalance less neutral scientists, possibly because one cannot identify a neutral expert. While this strategy can work, it must be managed in such a way that the public walks away with facts, not opinions or fiction. One option is to summarize each expert's comments periodically, using statements such as, "What I hear you saying is that..." Another option is to provide a summary of the key points.

## **Step 3: Analyze Consequences for Each Policy Option and Evaluate**

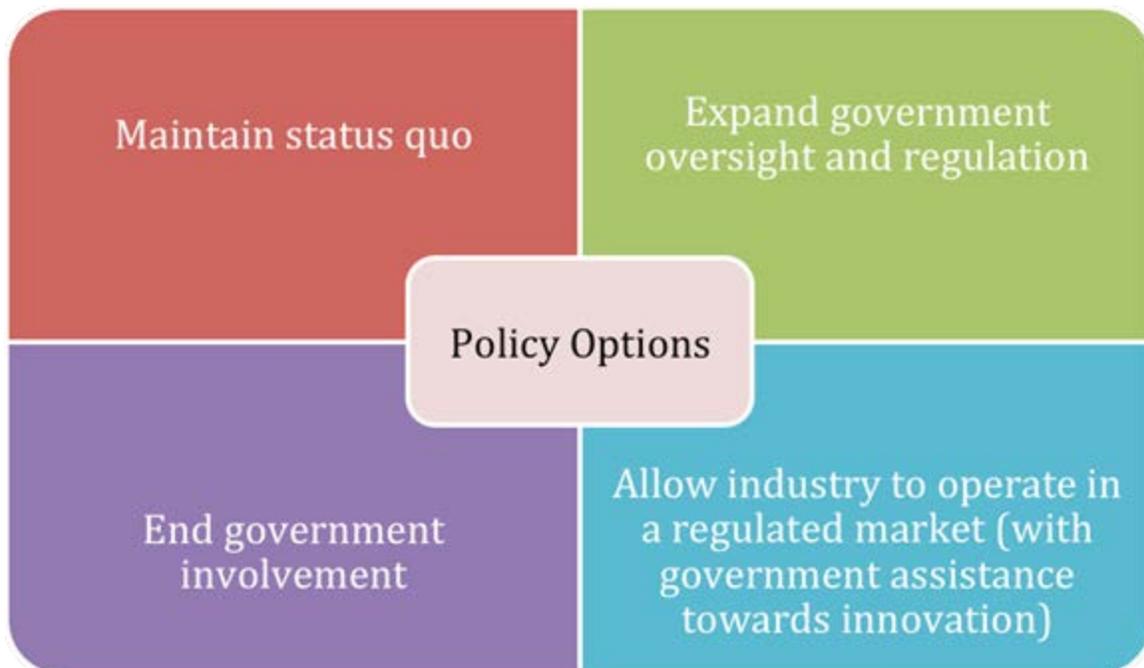
Educators might better serve their communities by understanding various policy options related to oil and gas activity. Each policy option will have consequences that participants will need to evaluate based upon the facts they possess and/or are presented with and their values. In addition to the topics discussed above with using the benefits/costs language, the consequences of each policy option are not necessarily comparable. Therefore, it is important for the Extension educator to maintain this perspective towards consequences.

As illustrated in Figure 2, the framing process identifies four policy options.

- Maintain the status quo: Continue current policy/programs. Here, no action is taken, allowing oil and gas activity to continue as before.
- Expand government oversight and regulation: Implement more regulatory oversight, more sponsored research/education, or government subsidy. More oversight may be minimal or extreme, which may include a moratorium on activity.
- End government involvement: Allow free market policy. End government involvement and move to a market free to develop as it responds to the demand of consumers and the supply of the industry.
- Allow the industry to operate in a regulated market. Allow the industry to operate in a regulated market, but use government resources to find efficiencies, provide incentives for industry and customers, and encourage innovation.

**Figure 2.**

Policy Options Matrix



Using a guide such as Table 1, as follows, can help the public think through the options and

consequences associated with each of the policy options. Scientific research yet to be conducted could change these tabular results. Following a group process to frame the issue, the Extension professional could use the group to identify relevant policy options. Columns 2, 3, and 4 represent a set of options. Experts, including Extension professionals, conduct analysis and provide the public with the likely consequences from each option; these are shared with interested citizens.

**Table 1.**  
Policy Options with Possible Consequences

	<b>Policy Options</b>			
	<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>	<b>Column 4</b>
	<b>Maintain status quo</b>	<b>Expand government oversight and regulation</b>	<b>End government involvement</b>	<b>Allow industry to operate in a regulated market</b>
Consequences	Create domestic energy; leads to less dependence on foreign sources	More dependence	Less dependence	Mixed
	Less expensive energy for consumers	More expensive	Less expensive	Mixed
	More local economic activity	Less economic activity	More economic activity	Mixed
	Increases income for mineral rights owners	Decreases	Increases	Mixed
	Increases local government tax revenue	Mixed	Mixed	Mixed
	Potential environmental damage	Less	More	Mixed
	Damage to public infrastructure	Less	More	Mixed
	Stress on public	Less	More	Mixed

	goods			
	Stress on private goods	Less	More	Mixed

## Step 4: Present Results and Let the Public Decide Which Policy to Pursue

Maintaining an engaged but civil conversation takes preparation and effort. One key strategy for maintaining a civil conversation is to lay down "ground rules" that are enforced throughout the meeting. Examples of such ground rules might include: everyone is welcome to contribute, and no one individual will dominate the discussion; participants will respectfully listen to one another; discussion focuses on the topic at hand, not personalities.

For more information on hosting and moderating public dialog, consider one of the numerous training programs available. For example, The National Coalition for Dialogue and Deliberation (n.d.), [www.ncdd.org](http://www.ncdd.org), has numerous resources that Extension professionals can use when preparing for a public meeting.

The *Journal of Extension* also features articles about the importance of public deliberation. Just one example is by Jolley (2007); this article provides a framework by which Extension can foster public involvement. The key to effectively using experts, however, is to understand their perspective on the issue and guide the discussion accordingly. It may be helpful to allow the experts to share their knowledge with the public in carefully moderated forum settings, or through the printed and digital materials that are provided as the issue unfolds.

## Conclusion

Extension professionals can provide information in a context that carefully frames the issue and is sensitive to participants' value systems using the public policy education framework. Helping the public understand that simplistic answers seldom result in effective public policy is a useful endeavor. Reducing the heat surrounding the debate and facilitating respectful, meaningful dialogue among the various interests are roles that Extension professionals can do and do well.

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