The Journal of Extension

Volume 56 | Number 7 Article 18

12-1-2018

The National Extension Oil and Gas Initiative

Paul Lachapelle
Montana State University

Kristin Smith
Montana State University

Julia Haggerty
Montana State University

Timothy W. Kelsey
Pennsylvania State University

Recommended Citation

Lachapelle, P., Smith, K., Haggerty, J., & Kelsey, T. W. (2018). The National Extension Oil and Gas Initiative. *The Journal of Extension, 56*(7), Article 18. https://tigerprints.clemson.edu/joe/vol56/iss7/18

This Ideas at Work is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.

Journal of Extension
www.joe.org

December 2018
Volume 56
Number 7
Article # 7IAW6
Ideas at Work

The National Extension Oil and Gas Initiative

Abstract

The national Extension oil and gas initiative centers on a network of Extension educators working on or interested in oil and gas development, a communications strategy that allows network members to exchange Extension information, a comprehensive inventory of Extension activities and resources, and national meetings at which network members can identify and share resources and optimal ways to engage constituents. Our work suggests that the need for relevant training and programming will continue as Extension faculty anticipate increased community demands surrounding oil and gas development. The network is open to all Extension faculty interested in the topic of oil and gas programming in communities.

Keywords: oil and gas, hydraulic fracturing, shale development planning, community development

Paul Lachapelle
Associate Professor
Montana State University
Bozeman, Montana
paul.lachapelle@montana.edu

Kristin Smith
Graduate Assistant
Montana State University
Bozeman, Montana
kristin.smith6@msu.montana.edu

Julia Haggerty
Assistant Professor
Montana State University
Bozeman, Montana
julia.haggerty@montana.edu

Timothy W. Kelsey
Professor
The Pennsylvania State University
College Station, Pennsylvania
tkelsey@psu.edu

Introduction

Addressing the challenges and opportunities associated with oil and gas development in many communities has become an emerging initiative for Extension faculty and citizens, with increasing demands for facilitated community engagement, educational outreach, and coordinated research (Landefeld & Little, 2016; Peek, Penn, Sanders, Shideler, & Ferrell, 2015; Romich, Bowen-Ellzey, Moss, Bond, & Civittolo, 2015; Swistock & Clark, 2015). Oil and gas impacts in communities that host onshore oil and gas development are no longer perceived solely as a technical or environmental issue and now require professionals to focus on a wide array of interdisciplinary topics in the social and economic realms (Barth, 2013; Brown, 2014; Haggerty & Haggerty, 2012; Measham, Fleming, & Schandl, 2016; Peek, Sanders et al., 2015; Schafft, Borlu, & Glenna, 2013; Stern, 2014; Weber, 2014; Weinstein, 2014). Questions continue to accumulate regarding best practices for the development and sharing of Extension resources to address impacts from hydraulic fracturing, regional shale development planning, and general health and well-being associated with oil and gas development in communities.

Extension faculty as well as constituents and practitioners will benefit from better and more coordinated networking for sharing oil and gas information and resources. This article outlines a new national initiative with which we are involved that was developed to address the growing cadre of interdisciplinary Extension faculty and practitioners focused on community issues related to oil and gas development. Extension professionals are

encouraged to learn about and engage in this innovative initiative and the corresponding network of educators and researchers who are sharing information and resources related to addressing the impacts and opportunities associated with this rapidly changing energy sector.

Purpose and Methods

The impetus for the initiative was the need to identify optimal ways to engage and assist Extension professionals confronted with addressing oil and gas development issues. To this end, we identified the following three objectives:

1. Establish an Extension communications strategy for sharing information and resources related to oil and gas educational outreach and research.

2. Conduct an inventory of relevant Extension activities and resources.

3. Organize a series of national summits convening interested educators and practitioners to identify resources and optimal ways to engage constituents.

To establish an appropriate Extension communications strategy, we first identified Extension educators involved in oil and gas work through an extensive Internet search (using the keywords phrase "land grant, Extension, and oil and gas"). We then contacted these educators and invited them to participate in two new opportunities for networking and sharing relevant information and resources: an electronic mailing list (extensionoilandgas@sympa.montana.edu) and a website (http://www.montana.edu/energycommunities/extension.html).

Next, we inventoried Extension activities and resources across the United States via an Internet search involving the keywords list identified above. As part of the inventorying effort, we also conducted 19 interviews with key informants identified during the online search; we used a semistructured interview to identify past or current cross-state collaborations, establish the range and scale of relevant Extension programming, determine current and future programming needs, and gauge interest in collaboration at the regional and national levels. The response from Extension professionals was overwhelmingly positive; there were no refusals for requests for submission of information for the inventory or for interviews. The inventory focused on Extension activities, research, and outreach and did not include activities from non-land-grant universities, nonprofit organizations, or for-profit companies. It included Extension-related activities and publications, webinars, videos, fact sheets, PDFs from presentations, websites, eXtension efforts, and other relevant outreach materials. The inventory helped us understand current activities and prompted further discussions with the interviewees about additional Extension needs.

Last, we inquired within the network on how and where to convene meetings and national summits.

Funding from a 3-year National Institute of Food and Agriculture grant supported the initiative, including establishment of the communications strategy (electronic mailing list and website), conduct of the inventory, and planning for the national summits.

Results

Thirty-one states (62%) have produced at least one Extension publication related to unconventional oil and gas

development (see Table 1). Not unexpectedly, the most common type of these Extension publications focused on general overviews of unconventional oil and gas development, drilling and development processes, and environmental, social, and economic impacts. The second most common type of publication focused on economic impacts such as job and income effects and short-term versus long-term economic issues. These publications often included discussion of the boom/bust cycle of activity in the oil and gas industry. General leasing guides for helping landowners make informed decisions were the third most common type of Extension publication, produced in 11 states. Additional publications addressed issues arising with unconventional oil or gas activity such as water impacts, taxation, workforce needs, implications for agriculture, and financial management for landowners. Most of the publications were written and produced by Extension professionals in individual states and not collaboratively between or among professionals in multiple states as content needs and context often vary significantly from state to state. Interview respondents did indicate, however, that accessing other state resources is informative for the development of their own state publications.

Table 1.

Common Foci of Extension Publications Across States as Identified Through a National Extension Inventory and Interviews

Focus	Number of states with relevant publication	States with relevant publication
General overview of unconventional oil or gas development	31	AK, AL, AZ, CA, CO, ID, IL, IN, KS, KY, LA, MD, MI, MS, MT, NC, ND, NJ, NM, NV, NY, OH, OK, PA, SC, SD, TN, TX, UT, WV, WY
Economic impacts of unconventional oil or gas development	12	AR, CO, IN, MT, NC, NM, NY, OH, PA, SD, TX, WY
Leasing information for landowners	11	AR, IN, MI, MT, NC, ND, NY, OH, PA, SD, WV
Water impacts of unconventional oil or gas development	7	CO, MD, NJ, NY, OH, PA, TX
Government/taxation issues of unconventional oil or gas development	5	CO, MI, NY, PA, SD
Unconventional oil or gas workforce development/job training needs	4	AK, PA, SD, TX
Energy trends	4	NC, ND, NY, UT
Agriculture/farming	3	NY, OH, PA

issues related to unconventional oil or gas development		
Unconventional oil or gas development issues related to forestry/forest owners	3	NC, NJ, PA
Financial and wealth management for landowners	3	NY, OH, PA
Pipeline issues and considerations	3	NC, OH, PA

Note. Data current as of March, 2016.

The methods of outreach identified by the interview respondents included a mix of community forums, publications, one-on-one meetings, and webinars (see Table 2). Programming needs existed at the national, state, and community levels and centered on educational needs relating to general overviews of oil and gas development, leasing and royalty rates, and impacts on economies, housing, local services, and schools.

Table 2.

Methods of Outreach and Programming Needs Identified Through a National Extension Inventory and Interviews

Topic	Details
Most common methods of outreach	• Community forums and information sessions • Regional meetings • One-on-one meetings • Publications: Fact sheets, one-page summaries, and newsletter articles • Workshops • Webinars
National-level programming needs identified	• Overview of the oil or gas development process • Introduction to energy issues • Environmental impacts (e.g., air, water, seismic activity)

	• Health impacts • Regional employment and demographic impacts
State-level programming needs identified	• Leasing (negotiating and pricing) • Royalty rates and easements • Mineral rights • Severability of surface and subsurface rights • Financial management • Business opportunities and challenges • Contact information/directory of content specialists
Community-level programming needs identified	• Impacts on economy, housing, local services, and schools • Impacts on environment, including reclamation and recovery • Optimal tax structures for communities • Conflict resolution and communication skills (how to navigate communication when individuals do not agree) • Eminent domain and pipeline construction • How to plan for boom/bust • Impact on local infrastructure • Communications skills of company representatives, town officials, and landowners

The communications strategy remains centered on the electronic email list and website and has continued to foster growth of a network of Extension educators working on or interested in oil and gas development. One example of material shared via the communications strategy components is the inventory we developed.

Three national summits have been organized (see Table 3). At these events, Extension educators meet, share resources, and discuss future program planning needs. There has been a positive response to meeting online and in-person, with requests to carry out more in-depth discussion on best practices via the formal network. This

growing network also is committed to executing future national gatherings through professional Extension association conferences and other events.

Table 3.

Foci of National Summits

Summit	Venue/location/date	Goals/discussion points	Participants
National Summit No. 1	NACDEP/ANREP Conference, Burlington, VT, June 26–29, 2016	Introduce national initiative, present draft goals and objectives, present draft inventory report, gauge interest in communications strategy	22 Extension professionals representing NACDEP and ANREP
National Summit No. 2	CDS/NACDEP Conference, Big Sky, MT, June 11–14, 2017	Discuss common themes identified from the national inventory, determine common and state-specific resources and publications, refine initiative goals and objectives	16 Extension professionals and community development practitioners representing NACDEP and CDS
National Summit No. 3	NACDEP Conference, Cleveland, OH, June 10–13, 2018	Determine how to minimize duplicative efforts across national-, state-, and community-level programming and publications and create resources that can be shared across state lines; discuss expanding network; determine multistate grant opportunities and research and publication opportunities; discuss goals of next summit	18 Extension and oil and gas professionals representing NACDEP, NSF, and university faculty

Note. NACDEP = National Association of Community Development Extension Professionals. ANREP = Association of Natural Resource Extension Professionals. CDS = Community Development Society. NSF = National Science Foundation.

Overall, the aspects of our project have coalesced effectively. Needs identified through the national inventory are being met in three ways. First, the communications strategy comprising the electronic email list and website is connecting individuals and thereby allowing them to share information and resources. Second, the summits are encouraging project planning and partnerships founded on face-to-face interaction at the meetings. Third, new multistate initiatives are taking place and involve collaborative grant writing and joint research and publishing.

Conclusions and Implications

A key goal of the national Extension oil and gas initiative has been to provide opportunities for educators to better communicate, access new and innovative resources, and interact via professional development meeting opportunities. The initiative is proving relevant to Extension faculty who have identified the need to communicate, network, and share resources on the complex issues surrounding oil and gas development. Most importantly, this new initiative can be a resource for any Extension educator with an interest in the impacts of energy development and related community planning and organizing.

References

Barth, J. M. (2013). The economic impact of shale gas development on state and local economies: Benefits, costs, and uncertainties. *New Solutions: A Journal of Environmental and Occupational Health Policy, 23*(1), 85–101.

Brown, J. P. (2014). Production of natural gas from shale in local economies: A resource blessing or curse? *Economic Review*, *1*, 1–29.

Haggerty, M., & Haggerty, J. (2012). Improving fiscal policy to maximize benefits of unconventional oil development in Montana communities. *Montana Policy Review*, *16*(2), 7–11.

Landefeld, M., & Little, C. (2016). Pipeline easement and right-of-way agreements. *Journal of Extension*, *54*(2), Article 2TOT11. Available at: https://joe.org/joe/2016april/tt11.php

Measham, T. G., Fleming, D. A., & Schandl, H. (2016). A conceptual model of the socioeconomic impacts of unconventional fossil fuel extraction. *Global Environmental Change*, *36*, 101–110.

Peek, G. G., Penn, C. J., Sanders, L. D., Shideler, D., & Ferrell, S. L. (2015). The oil and gas boom: Basic information about oil and gas activities for Extension professionals. *Journal of Extension*, *53*(3), Article 3TOT3. Available at: https://joe.org/joe/2015june/tt3.php

Peek, G. G., Sanders, L. D., Shideler, D., Ferrell, S. L., Penn, C. J., & Halihan, T. (2015). Framing a public issue for Extension: Challenges in oil and gas activity. *Journal of Extension*, *53*(5), Article 5FEA1. Available at: https://joe.org/joe/2015october/a1.php

Romich, E., Bowen-Ellzey, N., Moss, M., Bond, C., & Civittolo, D. (2015). Building sustainability in gas- and oil-producing communities. *Journal of Extension*, *53*(3), Article 3IAW1. Available at: https://joe.org/joe/2015june/iw1.php

Schafft, K. A., Borlu, Y., & Glenna, L. (2013). The relationship between Marcellus Shale gas development in Pennsylvania and local perceptions of risk and opportunity. *Rural Sociology*, *78*(2), 143–166.

Stern, P. C. (2014). *Risks and risk governance in shale gas development: Summary of two workshops*. Washington, DC: National Academies Press.

Swistock, B., & Clark, J. (2015). Pre-gas drilling drinking water testing—An educational opportunity for Extension. *Journal of Extension*, *53*(1), Article 1IAW6. Available at: https://joe.org/joe/2015february/iw6.php

Weber, J. G. (2014). A decade of natural gas development: The makings of a resource curse? *Resource and Energy Economics*, *37*, 168–183.

Weinstein, A. L. (2014). Unconventional oil and gas development's impact on state and local economies. *Choices*, *29*(4). Retrieved from http://choicesmagazine.org/choices-magazine/theme-articles/is-the-natural-gas-revolution-all-its-fracked-up-to-be-for-local-economies/unconventional-oil-and-gas-developments-impact-on-state-and-local-economies